REGIONAL WOOD ENERGY DEVELOPMENT PROGRAMME
&
FORESTS, TREES & PEOPLE PROGRAMME

FORESTRY EXTENSION
in
PAKISTAN

Report of the Workshop
Peshawar, 6-8 April 1993

Organized by

Planning and Development Department NWFP

Department of Forestry, Fisheries and Wildlife NWFP

Pakistan Forest Institute

Forestry Planning and Development Project

Social Forestry Project Malakand/Dir

In collaboration with

FAO - APAN

FAO - RWEDP

FTPP at RECOFTC

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(Editors)

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Asia-Pacific Agroforestry Network
&
Regional Community Forestry Training Center

Foreword

There is a growing awareness of the need for more varied portfolios of forestry development strategies and the corresponding adaptation of forest policy and administration in Pakistan. The limited forest area, the continuing population pressure, the importance of tree resources for socio-economic development and environmental protection both of degraded forests and non-forest lands have separately and in combination been conducive to this heightened perception.

This growing awareness is reflected in a variety of field experiments and pilot projects in forestry extension, applying different strategies corresponding to the diversity of local ecological and socio-economic conditions. The creation of social forestry programmes and divisions is yet another indication of this growing awareness.

At policy level the issue of sustainable management of forest resources is addressed in the National Conservation Strategy and the Forestry Sector Master Plan. Each from their own perspective, both plans stress the importance of involvement of local people in the management of forest resources and call for the development of mechanisms to this end.
At the field level the various projects involved in forestry extension development regularly exchange their experiences through an informal network. It was during these network meetings that the need was expressed for a more systematic, in-depth appraisal of emerging issues and strategies in forestry extension. This would facilitate the participants to relate the experiences from others to their own situation and thereby avoid the duplication of efforts, thus stimulating a more rapid accumulation of successful forestry extension strategies.

It was felt that development of successful forestry extension strategies could only be achieved if policy makers and programme planners would be involved in the conceptualization and design of forestry extension activities. The issue of limited coordination and collaboration between the various pilot projects, programme planners and policy makers has also been identified by FAO as a major issue in forestry extension development in Asia. As a result it was decided that, in collaboration with FAO-RWEDP & FTPP, a forum be created in which all parties involved could meet and set directions for future forestry extension development in Pakistan.
It is expected that experiences from efforts to improve such cooperation will be of great interest and use to forestry extension development in other countries in Asia.

Yar Mohammad Khan
Secretary of Forest, Fisheries and Wildlife
Government of N.W.F.P.

Preface

Pakistan is in a fortunate position that over the past 5-10 years considerable success has been achieved at the local level with innovative types of tree growing and forest resource management. While approaches and activities may have been somewhat different in each case, a key factor to their success has been the great emphasis on interactions with local communities and individual tree growers.

Translating the common denominators of success at the field level into viable national policies and strategies for forestry extension was the main challenge the participants of the workshop faced, when they started their deliberations. The present report shows the wisdom of the organizers to bring together field workers, policy makers and scientists for three days of intensive consultations.

The results are aptly phrased in the Peshawar Declaration, in terms of:

- recognition of rural people's capabilities to manage forest and tree resources,
- enabling policies and regulations, based on this recognition,
- professional extension support, to foster local partnerships for tree and forest resource management.

The experiences of those working with villagers in developing new 'partnerships' formed the core of the deliberations during the workshop. Their reports demonstrated that great strides ahead have been made in relatively short time.....but also the constraints in the development and institutionalization of field tested participatory approaches have been much clarified, as this report may also demonstrate.

Though many of the lessons learnt in the forestry extension development process in Pakistan, are of interest to community foresters in other countries, it is particularly the manner in which those actively involved in this process, share their experience that needs to be considered as an example to be followed elsewhere.

The Forestry Extension Network in Pakistan, and its mode of operation emphasizing the sharing of experiences and information in an informal manner, is a most interesting and highly effective initiative. This is a major reason why the four regional community forestry development support organizations invited to support the workshop, readily agreed to do so.

It is on behalf of these international organizations and our colleagues in other countries of Asia, that I wish to congratulate the workshop organizers for their initiative, and thank them for the opportunity to share Pakistan's experiences with our colleagues all over Asia.

It is also on their behalf that I pledge our support to the emergence and development of similar initiatives elsewhere in Asia.

Egbert Pelinck, Chief Technical Advisor
FAO-RWEDP, Bangkok

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LIST OF ABBREVIATIONS

AJK	Azad Jammu and Kashmir
AKRSP	Aga Khan Rural Support Programme
APAN	Asia Pacific Agro-Forestry Network
ASL	Above Sea Level
CTA	Chief Technical Advisor
DFO	Divisional Forest Officer
DIGF	Deputy Inspector General of Forests
E&M	Extension and Marketing
EEE	Environment and Energy Education
FAO	Food and Agriculture Organization
FECT	Fuel Efficient Cooking Technologies Project
FP&DP	Forestry Planning and Development Project
FTPP	Forests, Trees and People Programme
GOP	Government of Pakistan
GTZ	German Agency for Technical Cooperation
HH	Household
HSF	Hazara Social Forestry Project
IEU	Integrated Extension Unit
IGF	Inspector General of Forests
IGPRA	Income Generating Project for Refugees Areas
KIDP	Kalam Integrated Development Project
NGO	Non-Government Organization
NIPA	National Institute of Public Administration
NRSP	National Rural Support Programme
NWFP	North-West Frontier Province
PC-I	Project Concept Document
PCAT	Pakistan Council of Appropriate Technology
PD	Project Director
PFI	Pakistan Forest Institute
PRAP	Participatory Rural Appraisal and Planning
PRO	Public Relations Officer
PTR	Plots for Training and Rotation
R&D	Research and Development
RECOFTC	Regional Community Forestry Training Centre
RFD	Royal Forest Department
RFO	Range Forest Officer
RWEDP	Regional Wood Energy Development Programme in Asia
SFP	Social Forestry Project
SOU	Social Organization Unit
SRSC	Sarhad Rural Support Corporation
SVF	Siran Valley Forestry Project
SWM	Suketar Watershed Management Project
TA	Technical Assistance
TFS	Tree Farmers' Society
VDC	Village Development Committee
VLUP	Village Land Use Planning
VOs	Village Organizations
WAPDA	Water and Power Development Authority

EXECUTIVE SUMMARY

1 A national workshop on forestry extension was convened at the Pakistan Forest Institute in Peshawar on 6-8 April 1993. Among the participants were the policy makers from the Federal and NWFP Government, a selected number of international participants, representatives of donor organizations and spokesmen from a number of innovative field projects.

2 The need for holding this workshop was identified during a meeting of the "Extension Coordination Network", a group of professionals of different forestry extension projects and programmes who meet on a regular basis. It was felt that there was a need to compare and consolidate the experiences of the various pilot projects in the field in order to identify strengths and weaknesses as well as determine requirements at field and institutional (administrative, financial, organizational) level. Based on this identification the workshop has set an agenda for future action by policy makers, programme planners and field project managers.

3 After a number of introductory papers, the core of the workshop was formed by a presentation of a bench mark study executed for the workshop. This study made a comparative analysis of the extension approaches of a number of field projects and drew some conclusions on strengths and weaknesses. Moreover it addressed the issue of institutionalization of forestry extension. Subsequently the participants separated into working groups to generate recommendations for forestry extension on private lands, community lands and government (managed) lands. A separate group dealt with issues regarding planning practices, policies, legislation and organization. All groups proposed concrete recommendations for policy makers, programme planners and field managers.

4 The workshop concluded that forestry extension has an important role to play in improving sustainable management of natural resources on private, community and government (managed) lands. This role is certainly not restricted to tree planting only, but should in fact address management of forest and tree resources in general.

5 Participatory planning and formation of local organizations are key factors in any people-oriented forestry programme. Some successful examples exist and the Forest Department should attempt to replicate these. Innovative projects that develop extension approaches should tailor these to the capacity of the Forest Department in order to facilitate replication.

6 Currently forestry extension has only been implemented in a fairly rigid project framework which by its nature has limited scope, flexibility and life span. Through setting-up a monitoring and evaluation system that not only keeps track of physical outputs but also of effects and impacts, an attempt should be made to plan better projects which have more flexibility and are based on lessons learnt from the field. In addition, forestry extension should become a regular programme within the Forest Department.

7 Similarly, lessons learnt from the field should be fed back into the forestry educational centres and should also determine the research agenda of these institutions.

8 Forestry extension needs an institutional structure within the Forest Department. This will require major institutional changes in organizational structure, division of work, staffing, decision making processes, leadership styles and control mechanisms. The process of such an organizational change will have to be managed as a flexible learning process.

9 The workshop concluded by adopting the Peshawar Proclamation on local partnership in sustainable forestry, calling on all actors involved to undertake immediate actions to develop, enhance and strengthen local partnerships through institutionalization of forestry extension.

THE PESHAWAR PROCLAMATION

We, the participants in the National Workshop on Forestry Extension in Pakistan, held in Peshawar 6-8 April 1993, pledge our commitment towards achieving the sustainable and equitable management and development of forest and tree resources in Pakistan by:

- Recognizing that local partnerships are essential to realize the potential of forests and trees in order to make increased contribution to meet socio-economic and environmental needs,
- Considering the diversity of, and changes in, rural conditions that impinge on the development, discerning use and sustainable management of forest and tree resources,
- Building on well tested experiments to actively involve rural inhabitants in the development and management of forest and tree resources.

We call on the public at large, the political and social leaders, the Government of Pakistan and of North Western Frontier Province in particular, the forest department and related departments, professionals, NGOs and all those interested in the sustainable development of rural resources, to undertake immediate actions to develop, enhance and strengthen local partnerships by:

- Reviewing and adapting legal, administrative and organizational arrangements that constrain the development of such partnerships,
- Promoting and expanding the efforts to build a forestry extension capacity in the relevant government departments and other relevant institutions; including training, research and other development organizations, inclusive of NGOs,
- Promoting the regular exchange of ideas, experiences and field-tested participatory management innovations between practitioners and those involved in the administration of forestry extension development.
- Creating and maintaining an incentive structure for all those involved in successful forestry extension activities, in government organizations, non-government organizations and villages.
- Promoting and ensuring the equitable distribution of benefits of improved forest and tree resource management activities,
- Promoting the development and incorporating of relevant, field tested skills and knowledge of high academic quality in the curricula of professional education and training institutions.

We call upon all government agencies and professional institutions with a mandate and expertise in the development and management of rural resources, to increase their efforts in developing the forestry extension capacity required for the support of local forest and tree resource management partnerships.

We also appeal to the international organizations supporting rural resource management in Pakistan, to accord the highest priority to forestry extension development.

We strongly support the establishment of national and provincial fora for dialogue, review and guidance of forestry extension development initiatives.

We urge all forestry related institutions to critically review the proceedings and recommendations of the Peshawar Meeting on Forestry Extension, and to consider committing themselves to this Peshawar Proclamation on Local Partnerships in Sustainable Forestry Development.

Peshawar, Pakistan, April 1993.

PART I

THE WORKSHOP

1. BACKGROUND

The idea of forestry extension as a means of communicating ideas on forest management and tree planting to laymen has been around for a long time, but did not really develop any particular focus in Pakistan until it was included as a component of donor sponsored forestry and integrated development projects. In Northwest Frontier Province this essentially began during the early 1980s .

In July, 1988, the FAO Regional Wood Energy Development Programme initiated a dialogue with GOP Ministry of Food, Agriculture and Cooperatives to encourage the convening of a National Workshop on the "Planning of Forestry Extension Programmes in Pakistan". This initiative was intended to help bring together the representatives of the Forest Departments and the donor projects with forestry extension components so that they might share experiences and chart a course of cooperative action for the future.

After much discussion and consideration, it was finally settled through the leadership of the Malakand Social Forestry Project, that a point of beginning could be made by first focusing on the forestry extension efforts in NWFP. On 18-20 December, 1989, a "Seminar on Social Forestry in NWFP" was jointly hosted by PFI and the Malakand Social Forestry Project. Representatives from six donor projects and all provincial forest departments were in attendance. The main recommendations of this workshop pertained to:

- involving local population in management of existing forests;
- involving local population through local organizations in planning and implementation of field activities;
- creating extension and farmers' training capabilities and facilities within the Forest Department;
- involving women in forestry activities, both at Forest Department and field level;
- streamlining marketing of forest products at local level;
- strengthening forestry research and education for social forestry purposes;
- adjusting forest laws and procedures towards social forestry.

After the workshop, the forestry extension technical advisors from the donor projects maintained close communication with each other. This developed into what came to be called the "Extension Coordination Network", which convened its first meeting in Peshawar in September 1990. Since that time, the group continued to meet two or three times per year, sharing ideas and experiences and primarily trading technical information material. Later, however, the focus shifted and the network started to discuss tree planting programmes (mainly on private lands) in general. Gradually the scope of these discussions became broader and increasingly structured and the meeting addressed fundamental topics like natural resource management strategies,

local organizations, local level planning methods, transfer of technology and marketing. The discussions aimed increasingly at collaboration on ways and means of **sustaining** forestry extension as part of the Forest Departments' programmes.

Today there are more than ten donor projects in Pakistan with forestry extension components. All are concerned with the sustainability of this important programme as a means of improving the future viability of Pakistan's forest resources. This workshop comes at a time when significant changes are coming to fruition. Both NWFP and Punjab Forest Departments are in the process of setting up forestry extension "wings". Hopefully the comments, suggestions, and recommendations of this workshop will be of value in the new effort.

2. OBJECTIVES AND PROGRAMME

2.1 Objectives

The objectives of the workshop were formulated as follows:

1. to examine present forestry extension (social forestry) approaches in order to identify strengths, weaknesses and requirements at field and institutional (administrative, financial, organizational) level ;
2. to set the agenda for future action by policy makers, programme planners and field project managers in order to remove weaknesses and capitalise on strengths;
3. to improve the coordination and collaboration between policy makers, programme managers and field project managers in order to foster agreement on the future of forestry extension.

2.2 Programme

In order to achieve these objectives a number of plenary and working group sessions were held. These comprised the following (for a detailed programme please refer to 6.2):

1 Introduction
2 Policy and forestry extension programmes
3 Experiences with forestry extension at field level
4 Setting the agenda for the future (working groups)
5 Plan of action for future development of forestry extension
6 Closure: the road to the future

After the key-note address in session 1, some general principles, issues and ideas concerning forestry extension were presented as well as some experiences with FAO regional networks.

The second plenary session discussed federal policies, the national forestry sector master plan and finally forestry extension in North Western Frontier Province. Session 3 laid the groundwork for the working groups and constituted the presentation and discussion of a comparative study of seven projects that was especially executed for the purpose of this workshop. Session 4 was entirely devoted to working groups, only to be interrupted by two presentations highlighting the experiences with institutionalization of forestry extension approaches in Thailand and Nepal respectively. In session 5 the working group leaders presented their respective recommendations to the house. Finally in session 6 the aggregated recommendations were presented and the Peshawar proclamation on local partnership in sustainable forestry development was adopted.

2.3 Structure of the Report

The structure of this report largely follows the programme of the workshop. Chapter 3 presents a digest of the various presentations along with some highlights of the plenary discussions. Chapter 4 offers the main recommendations of the working groups. These seven working groups addressed the issue of the sustainability of forestry extension from two perspectives. On the one hand the sustainability of forestry extension efforts in the field was discussed based on the experiences of the various projects. This was further sub-divided in the sustainability of:

- extension approaches to private lands
- extension approaches to protected and reserved forests and other government managed lands
- extension approaches to communal lands

On the other hand, the sustainability of forestry extension was considered from the point of view of the institution, i.e. the forest department, with respect to its planning practices as well as policy, and institutional requirements. This was further subdivided into:

- policies and legislation
- organizational set-up
- working procedures
- job descriptions
- staffing and staff development
- finance

The responsibility of the groups was to complete the list of issues already raised during the previous discussions and produce substantial recommendations for policy makers, programme planners and project implementers. Chapter 5 gives an account of the main recommendations of the working groups with some final conclusions and unresolved issues.

Part II of this report consist of the ten papers as presented during the plenary sessions. First the papers with the experiences in North West Frontier Province are presented, followed by the papers on forest policy and extension in Pakistan and the papers with international experiences in forestry extension.

3. SUMMARY OF PAPERS AND DISCUSSION

3.1 Introduction

The workshop was opened by Mr. Mumtaz Khan, Project Director of the Social Forestry Project Malakand-Dir. He presented the background of the workshop and its objectives and stressed the need for a change in the Forest Department in NWFP towards forestry extension in order to increase the efficiency of the department's activities.

Next Mr. Muhammad Azam Khan, Chief Secretary NWFP, presented a key note address focusing on environmental issues in relation to general development of the country. He explained the policies of the government, such as the national conservation strategy and its elaboration in NWFP. Further, he emphasized the need for involvement of the local people in the management of natural resources through forestry extension. He also recognized the need of institutional adjustments within the Forest Department to be able to meet forestry extension activities but stressed the importance of remaining realistic with respect to the means of government resources. Finally, he mentioned the importance of practical follow-up to the recommendations of the workshop.

The key note address was followed by a presentation of Mr. Cor Veer of FAO-RWEDP/FTPP. He discussed some principles, issues and ideas of forestry extension development. He explained a shift in forestry approaches towards participatory management through forestry extension. He elaborated the concept of extension as "a professional communication intervention to induce change in voluntary behaviour" and emphasized institutional aspects, such as the need for local and technical support organizations and trained local cadre. He then presented a historical overview of forestry extension development in Asia from tree planting outside forests for fuel, through agro- and farm forestry, containment of encroachment and stabilization of shifting cultivation, to forest resource management partnerships and community management. In conclusion he highlighted the development of forestry extension through a "learning process approach" containing three phases:

phase 1: learning to be effective through action research in order to develop new approaches

phase 2: learning to integrate the new approaches in organizational and administrative procedures

phase 3: expansion: introducing approaches and procedures to other staff

The last introductory paper was presented by Mr. Chun K. Lai of FAO-APAN. Mr. Lai illuminated the use of networks, as well as the networks which are currently being supported by the FAO in Asia. He explained the activities of the Asia-Pacific Agro-forestry Network (APAN) in more detail. The APAN network coordinates agroforestry research and development, supports the exchange of information and technology, organizes agro-forestry training and supports some innovative field activities, such as documentation of agroforestry innovations by farmers. He expressed the usefulness of organic areas of overlap and duplication to strengthen common processes. In addition he advised the forestry extension coordination network to link-up with existing international networks.

3.2 Forest Policy and Forestry Extension Programmes

The second session of the workshop dealt with the issue of forest policy and forestry extension programmes. The session started with a presentation by Mr. Abeed Ullah Jan, Inspector General of Forests, comprising a review of forestry extension programmes in Pakistan and opportunities and constraints of these programmes. Mr. Jan indicated opportunities to intensify management of public and private lands. He also advocated the opportunity to create a separate extension service within the Forest Department while at the same time establishing NGOs to promote tree culture and spread environmental awareness.

Mr Jan contended that social forestry is more tailored to people than trees and therefore requires different skills and aptitudes which need to be developed. This led him to the constraint that traditional foresters are not appropriately trained for this job, and are not provided with additional incentives for the arduous social forestry tasks involved. Furthermore social forestry is promoted under a project approach and no organizational social forestry structures exist as yet, except nominally in Punjab, with untrained and frequently transferred staff.

The novelty of the subject thus leads to inappropriate and contradictory PC-I's with respect to an organizational structure and staff positions. It then becomes almost impossible to change PC-I's due to inflexible rules and regulations. The project approach also leads to termination of staff once the project is completed because staff is provided through the development budget and not through the regular budget. Moreover, the development budget is regularly cut, hampering the implementation of extension activities. Despite these constraints, Mr. Jan predicted great scope and potential for forestry extension with improvements in training, organizational structure and specialization of staff.

The second presentation on forestry extension and policies focused on the National Forestry Sector Master Plan. Dr. Muhammad Ashraf expressed the need for forestry extension, as a result of the enormous effort required to support tree planting on private lands and the need to use persuasion and education as a means of involving people. The extension model proposed by the Master Plan would have the following characteristics:

- people friendly attitude;
- a Forest Department supporting private initiatives;
- multiple approaches based on multiple objectives of different target categories;
- an organizational structure based on public servants and private initiatives including the involvement of NGOs;
- expertise in fields such as sociology and economics;
- appeal to direct (economic) benefits for target groups;
- involvement of women;
- forestry extension research at PFI and feed-back mechanisms from existing projects.

The Master Plan proposes the strengthening of forestry extension capabilities in all provincial government Forestry Departments. Moreover, it recommends a link between the Forest Departments and communities through existing and new NGOs. To conclude, Dr. Ashraf discussed the functions of the extension units.

The third paper on policies and forestry extension dealt with the situation in NWFP and was presented by Mr. Yar Mohammad Khan, Secretary of Forests NWFP. Mr. Yar Mohammad Khan explained the provincial policies and stressed the pivotal role of people's participation in these policies for reasons of mobilization of local financial resources and effective implementation. He described the major forest policy thrusts and their relationship with forestry extension as:

- resource protection and conservation;
- promoting efficient and equitable resource use,
- resource improvement and development;
- research and demonstration;
- strategic planning, execution, monitoring and evaluation;
- institutional development

At the levels of policy makers, programme planners and field project managers, the paper listed issues for discussions such as legislation, organizational structure, donor assistance, monitoring and evaluation, research and training, people's participation, field incentives and field coordination. Moreover, it explained the strategy of Focus Green Sarhad for private and public sector involvement in forestry development.

Concluding, Mr. Yar Mohammad Khan remarked that he agreed with the principle of assisted self-reliance, which contains elements such as,

- creation, strengthening and involvement of local organizations
- multiple and complementary channels for action
- blending of "indigenous" and "modern" technologies
- sustainable (local) resource mobilization
- use of paraprofessionals
- organizational re-orientation of the Forest Department
- process approach.

3.3 Experiences with Forestry Extension at Field Level

Subsequently Mr. Mohammad Rafiq presented a summary of his background paper entitled "Approaches to forestry extension in Northern Pakistan with a focus on NWFP". The paper introduced a comparison of seven projects based on a descriptive analysis laid down in so-called "project profiles". The analysis concentrated on the extension process of the various projects addressing the contrasts and similarities between approaches for private farm lands and community lands. The paper described the extension process in the following series of steps: pre-project planning, planning of interventions, social organization, formulation of technical packages, management of interventions, allocation of benefits and follow-up. It continued by commenting on the current institutional arrangements (both Government and local level) and the issue of post-project sustainability. The paper concluded with a number of recommendations concerning the extension process, the institutional arrangements and post-project sustainability. The most important recommendations are as follows:

- The farm forestry approach as developed for private lands by the FPDP has been quite successful and will be relatively easy to replicate.
- The structured approaches for planning of interventions as are now pioneered by KIDP (PRAP) and SFP (VLUP), seem a step in the right direction. Taking into account the issue of land tenure in this planning process is crucial.
- The model of organization of communities has to be flexible in order to be appropriate for the large variety of conditions. Once established organizations should have a formal status as well as rules and regulations. For organizations aimed at management of community lands it is imperative to have all relevant groups represented in the organization.
- Technical packages should not be defined too narrowly. Beneficiaries should be able to choose from a sufficiently wide range of pre-tested options. In general, technical packages should become more attuned to demand from beneficiaries than to the type of service the government can deliver.

- Recurrent subsidies should be avoided. If subsidies are necessary, one time grants are usually better. Establishment of communal saving schemes is an appropriate tool for management of communal areas.
- In general the private sector is efficient in marketing forest products. Enhanced flow of market information between end-users and producers will reduce the possibilities by middlemen to make exorbitant profits.
- Monitoring systems for feed-back are important but non-existent.
- The existing institutional arrangements for forestry extension within the Forest Department are inadequate and should be reinforced through the separation of participatory forestry from traditional forestry.

The presentation of Mr. Rafiq provoked a large number of reactions and a lively discussion, a summary of which is presented in the following. First of all the chairman of the session, Mr. Abdullah, Director of the National Institute for Public Administration (NIPA), Peshawar, remarked that he thought the projects were spending too much energy on creating new village organizations. He was of the view that the existing local mosque communities and other traditional organizations, such as the *jirga* (traditional council of village elders), were probably the best forum to focus extension programme delivery, along with the collaboration and involvement of local political bodies (union council, etc.). He also felt that more involvement with agricultural extension was called for. He concluded with the remark that in the comparison of approaches as presented, a financial analysis was not made, although that would be essential in the strategic selection between alternative approaches.

The need for including the management of existing (state) forests and biodiversity, and not only tree planting in forestry extension, was brought up as an issue.

It was also contended that the transfer of plantations from the forest department to local communities has been neglected in tree planting projects for many years. It seems that the government is afraid to give away control to local communities, or is neglecting the future management needs in the conceptualization of projects.

The shift away from trees towards people in forestry extension increases the necessity to look at the wider needs of the communities. This requires coordination of forestry extension with other organizations, such as agricultural and livestock extension and demands a change in the curriculum of training of forestry staff.

Extensive discussions were held by the participants regarding drafting and use of PC-Is. It was generally concluded that PC-Is are not being written by staff at the right level. Nor are flexibility mechanisms built into the document.

This could for instance be done by defining targets in general terms which could be detailed later in operational plans needing approval of an annual review board.

The need for subsidies was also debated. The general view was that, although subsidies should preferably be avoided, it might on occasion be necessary to use them to initiate the intervention process. However, they should be removed as quickly as possible.

Another issue which was raised, was the need to study the economic and biological feasibility of forestry in various ecological zones. This would generate appropriate technical packages per zone, and probably show the limitation of pure tree planting interventions. Technical packages would need to be developed through the PFI and not by projects that exist for only a limited period of time.

The need for a separate social forestry wing within the Forest Department was also examined. The question was raised whether it would be an additional unit or be integrated into the existing structure. It was further discussed whether it would be a staff unit or one with its own operational capacities.

The session concluded with specific reactions to Mr. Rafiq's background paper from a number of the projects

Gary Naughton, FPDP, emphasized the **farm forestry** extension programmes, and pointed out that the paper was too constrained in its analysis because of the inherent limitations of the project approach. While there is great value in projects and in inter-project coordination, the real need is for an extension forestry **programme**. He took the position that extension is a **method** and not an **objective**, and that the existing bureaucracy is limiting the effective development of forestry extension. He also called for a more responsive involvement of PFI in establishing a linkage between extension and research.

Javed Ahmed, AKRSP, took exception to some of the comments about the inappropriateness of VOs for larger villages, and described the AKRSP concept of using **representative structures** and "cluster" organizations. Extension is a **process** of evolving change and takes a large investment in time. His view of forestry extension is that it should be the job of **NGOs** and not of the Forest Departments. He saw a role for the Forest Departments and PFI in providing technical linkages and back-up.

N.L. (Roy) Martin, FAO/Suketar, remarked that the Forest Departments need to implement forestry extension programmes staffed by professionals on a career track. Extension education and field operational programmes do not mix well when they are the responsibility of the same person. The extension **procedure** used is not as important as the extension **objective** of teaching

people to help themselves. The focus on income generation through extension is essential, as it will improve the livelihood of the people and enable them to take risks for resource conservation.
He was especially concerned that the term **wastelands** should be stricken from all of our documents because it presents a negative concept. He emphasized that the project approach of this analysis, while helpful, is much too limited by the existing bureaucratic structure to provide a comprehensive view of what **might** be. The project approach, in terms of implementing extension programmes, needs at least 15 to 20 years for delivery, with a gradually declining donor involvement staged in 5-year increments.

Syed Akhter Hussain Shah, Hazara SFP, emphasized that the homogeneous social structure throughout most of the HSF Project area is in contrast to the general observations and views of the working paper. He therefore presented an explanation of how the Village Development Committee (VDC) system works on his project. He defended his project's decision to provide fully subsidized interventions on the basis of the particular economic, social, and environmental factors which constrain the participation of the people. He also emphasized that the project period of only 3 years was not likely to be adequate to ensure sustainability of the interventions, but that the **economic viability** of these interventions would be the key factor.

Dr. Faisul Bari, Project Director KIDP, emphasized that a high degree of **confidence building** needs to be attained between the delivery agent and the audience before any effective extension intervention can be obtained. Technical packages must be very clear and focused on the people's interests and concerns. The extension package must be consistent within a geographic area. The Forest Department and the people should define and agree upon the activities which would be undertaken through a **participatory** approach. Training of local people and institutions can improve **efficiency** and **sustainability** by preparing them to take over certain activities now being done by the departments

Alamgir Gandapur, DFO Dir SFPMD, stated that the project considered the paper to be biased towards using extension as "promotional forestry" with not enough emphasis on management. Participatory forestry, both public and private, needs more of a **management, production, and conservation** focus and should not be concentrated on **tree planting**. Community organizations need to be reflective of grass-roots (local) concerns and transparent in decision-making. Allocation of benefits depends on local decisions, be it for community development purposes or redistribution among individuals. Unclear land tenure situations were seen as a major obstacle in the success of forestry extension in communal lands. Technical packages should be tailored to solve the problems of the beneficiaries, but it is essential that extension be thoroughly based on research (PFI).

3.4 Experiences from Thailand and Nepal

The working group sessions were adjourned for two presentations; one from Mr. Pearmsak Makarabhirom from Thailand and the other from Dr. Narayan Kaji Shresta from Nepal. These two papers presented experiences with developing different extension approaches and their subsequent institutionalization in other countries. While part II of these proceedings contain copies of these background papers, a summary is presented below.

Mr. Pearmsak Makarabhirom highlighted the experiences and strategies on forestry extension in Thailand. He presented a historical overview of the development of community forestry and agroforestry and the national forestry policy in Thailand. He explained the various approaches followed for restoring and managing forests; such as the conservation area approach, the economic and social production approach and the watershed area approach.

In addition, Mr. Pearmsak discussed the different roles of forestry extension, i.e., as a learning process to understand people and their environment, as a tool to build up some kind of cooperation with the people concerned and as a catalyst to promote community forestry management and agroforestry systems. Extension approaches might differ based on these different roles, objectives and specific sites e.g. commodity approaches (production oriented) or bottom-up approaches (environment oriented).

In conclusion, he described some lessons learnt from the experiences of various projects. The "Participatory forestry development through extension" project helped in structuring the organizational set-up and approaches of forestry extension. As a result of this project a forestry extension unit is functioning within the Forest Department since 1970. This unit developed different extension messages for different categories of farmers and different target areas. The efforts mainly emphasized income generation through agroforestry and tree planting. However the "extension for conservation" work took place through an integrated watershed management project. The important role of village leaders in management of the areas was an important lesson learnt from this project. Furthermore the project concluded that it takes a long lead time before disadvantaged groups can be reached at an appreciable level of impact, and before extension activities bear fruits. A third project, the "Community forest project", synthesized the two and worked both for the protection of existing, and the development of new, village forests. For all these efforts the government stimulates the involvement of NGOs in helping rural communities with forestry activities.
Also the private sector becomes more active in commercial tree planting programmes with its own extension services, and various forms of contract planting.

Mr. Pearmsak concluded that the attitudes of those working in the organization are of prime importance for the success of the forestry extension programme.

Forest officers still tend to treat people as encroachers, despite the fact that the working procedures of the department have changed towards forestry extension. Moreover, a gap still exists between the field extension officers and the administrators at central level. Support to the field is vital.

In the ensuing discussion of Mr. Pearmsak's presentation, it was concluded that institutional change in the organizational structure and staffing cannot be brought about by a project approach alone. Forestry extension concepts and projects have been promoted in Thailand over the last 20 years by a gradually expanding core group of officers within the forestry department, who are actively involved in the pilot project activities including those supported by international agencies and NGOs, and maintain close links with support agencies such as universities.

In the subsequent session Dr Narayan Kaji Shresta gave an account of the development of community forestry in Nepal. Dr Shresta started by giving a historical overview highlighting use of forest resources before the creation of Nepal and the subsequent development of a forestry service shaped after the Indian forestry service in the 1940s. This was followed by a transfer of all private forests into custody of the Government in the early 1950s. Just ten years later the Forest Act reversed the decision and handed back some of the forest resources to the people. Subsequently, the National Forestry Plan of 1976 was supposed to give teeth to the involvement of local institutions in the management of forests through conducting a programme of "motivation and education activities to promote people's interest and participation in community forestry activities". Despite the fact that legislation was also promulgated to this effect the Forest Department proved reluctant to share power with communities over forest management. At the same time massive donor support for community forestry started pouring into Nepal mainly concentrating on forest establishment and protection. By the mid-1980s the notion began to gain ground that despite generous budgets, a favourable government policy and legislation, little progress was made. Plantation targets were seldom reached, survival rates were low, forest management plans were imposed on the users and therefore never implemented and efforts were not directed at "sustainable management of local resources by the users". It was realized that attention to "people" should prevail over attention to "trees" but at the same time it was perceived that institutional inability and vested interest would oppose bringing about such a shift in focus.

Dr. Shresta then described a number of principles that might help the implementation of true social forestry programmes. In essence these are:

- to create an environment facilitating real participation, not only at the local level, but also within the Forest Department;
- to gear efforts toward fulfilling basic needs on an equitable basis;
- to treat sustainability not as a mere slogan but as a practice for communities to become independent and self reliant;
- to design programmes to be flexible to allow for a learning process;
- to restrict the role of outsiders to facilitating and rendering support only;
- to be consistent with one's principles.

Finally the paper concludes that a major challenge is bureaucratic reorientation, including a change from authoritarian to participatory styles, and a shift in responsiveness from orders from above to demands from below. This change will have to be initiated from above because it will be impossible for the lower tiers in the forest department to adopt a service oriented role while the value system they work in encourages them otherwise. Their changed role should in turn encourage user's communities to become increasingly responsible for taking decisions with respect to natural resource management.

The issues brought-up during these presentations formed an input for the discussions in the working groups. The next chapter presents the results.

4. RECOMMENDATIONS OF THE WORKING GROUPS

In the working group discussions the main emphasis was put on post-project sustainability aspects, especially in connection with the institutionalization of forestry extension. This issue was approached from two perspectives:

- the extension approaches in the field;
- the institution that has to implement these approaches.

As explained in Section 2.3 the extension approaches in the field refer to interventions in three different situations, namely private lands, government managed lands and communal lands. At the institutional level the working groups suggested recommendations for policy development and planning practices. Following are the main recommendations of the working groups.

4.1 Private Lands

Given the limited resources of the government to undertake large scale afforestation by itself, the vast potential for tree planting and the low maintenance cost on private land, the government should promote successful farm forestry approaches developed by the pilot projects.

Such private tree planting and tree crop management initiatives should be encouraged and supported through:

- the development of economically viable and socially acceptable extension packages;
- the creation of a strong linkage between research centres and extension services for information dissemination and identification of research topics relevant to the reality of the field;
- strong coordination and communication between line agencies at village level; and
- outward linkage by the Forest Department to NGOs, industries and the market.

4.2 Protected and Reserved Forests and other Government Managed Lands

All the efforts in extending the forest areas in the province are void if the problem of depletion of the existing forest resources is not halted. Community involvement is a prerequisite in executing the mandate of the Forest Department to protect these existing forests on government managed lands. In order to ensure meaningful community involvement, management plans for these forests should be prepared in consultation with the local community.

The development of these plans should start at grass-roots level, be oriented toward local needs, and be coordinated with other governmental and non-governmental organizations.

These plans should meet both the objectives of revenue generation for the state and forest based needs of the local community. In order to meet these needs of the local population, local timber depots and energy plantations for instance should be established.

4.3 Communal Lands

In addition to the government managed lands there exist vast communal areas which lack proper management and hence are degraded. The Forest Department has an important role in restoring the productivity of these communal areas.

Planning interventions in these areas should be based on a pragmatic integrated landuse approach, taking into account both bio-physical and socio- economic realities of the area. Special attention should be given to land tenure, identification of interest groups, both users and owners, and existing local organizations.

These existing organizations should preferably be used for natural resource management. If necessary they could be modified. Creation of new organizations should only be considered if there is no existing organization or if it has ceased to be functional. A procedure for the establishment and support of new village organizations should be developed. Sufficient time for community organization should be allowed before undertaking technical interventions. It should also be considered if there is a need for an umbrella organization to sustain community organizations.

From the beginning, the Forest Department should involve the village community in problem identification, decision making, planning, implementation, monitoring and evaluation of interventions. This whole process should be transparent to all villagers.

The technical packages to be promoted should be economically feasible, socially acceptable and sensitive to local needs and knowledge. These packages should be pre-tested through participatory adaptive research.

4.4 Project and Programme Planning

It will not be possible to implement those recommendations at the field level if, at the same time, issues related to project and programme planning are not addressed. Some of the recommendations in the field of programme planning are described below.

To date, development has all been planned and implemented in the form of projects that by their nature are limited geographically as well as in time. To overcome this it is recommended that forestry extension become a regular programme activity financed from the recurrent budget.

In the case of new projects it is furthermore recommended to carefully guide the process of drafting of PC-Is in order to improve their quality and consistency. This will include ensuring that enough time is available and that these documents are formulated by the relevant people.

The PC-Is should be kept flexible and annual operational planning should be used to modify the course of a project. This will allow for a learning process at the project level, for instance, with respect to complicated land tenure situations or the need for social organizations. Moreover, maximum benefits should be built-in from experiences gained with other projects. Finally the focus during implementation could be placed on the effects of the projects rather than on output targets.

4.5 Policy Requirements

The most prominent recommendations in the field of policy formulation are the following:

Education & training:
The Pakistan Forest Institute and Sarhad Forest School should fulfil an increasingly important role in providing extension training at both graduate and in-service levels. This requires overhauling the curriculum. To a large extent the training should draw on experience gained in the field by the different projects.

Legislation:
Existing forestry and other relevant laws should be reviewed and modified to provide legal back-up to forestry extension in general, and enhance community participation in state forest management in particular. It should be kept in mind that it will be important to enlist political support to this end.

Subsidies & revenues:
It is acknowledged that subsidies for field implementation should preferably be avoided. If necessary, however, these should be appropriate to the needs and should be time, people and locality specific. As a matter of policy the recipient should also contribute to the subsidized activity. Moreover, the subsidies should gradually decrease with generation of revenues. This will require the framing of a new policy on incentives and credits.

For the state forest, emphasis should shift from revenue generation for the state to revenue generation for the local community and resource development.

Monitoring and evaluation:
It is recommended to establish qualitative as well as quantitative monitoring and evaluation systems. The evaluation criteria should be clearly defined beforehand and not only relate to output of the project but also to its effect. The outcome of such monitoring and evaluation exercises should be fed back into new upcoming initiatives in a structured manner.

4.6 Institutional Requirements

Finally, the subsequent recommendations were offered regarding institutional requirements:

Organizational structure:
A separate extension service should be created within the Forest Department to address forestry on private and communal lands. The mandate of the territorial

organization should be restricted to the government lands. At field level, however, no separation of tasks should exist between forestry and extension.

Staffing of the forest department:
The job descriptions of extension foresters should be clearly defined and codified. They should focus on motivation, training and education. The job should be open to professionals with other backgrounds than forestry and offer sufficiently attractive career opportunities.

Establish linkages:
It is proposed to establish a nucleus of extension/outreach and continuing education at PFI which would have close linkages with the field to tap experience. The nucleus should have a focus on participatory adaptive research. Coordination/communication between agencies, agricultural bank, other departments, NGOs, industries and the market should be enhanced.

5. GENERAL CONCLUSIONS AND RECOMMENDATIONS

This chapter gives an overview of the general recommendations put forward during the workshop. It consists of two parts. Section 5.1 describes the issues that should be put in practice as agreed upon by the workshop participants. Section 5.2 lists points that need to be studied further. Those are points considered essential by the participants, but on which no agreement could be reached because of difference in opinion, time constraints or otherwise. The issues are listed according to the type of people that need to take action: policy makers, programme planners and field managers. Finally, some general conclusions are drawn.

5.1 Recommendations

Policy makers

1. Policy makers should adopt a learning process approach towards the institutionalization of forestry extension No blue prints can be given, nor will a short term project approach work. Feed back mechanisms from the field should be developed to monitor the achievements in the field and make the necessary policy adjustments.

2. Policy makers should allocate sufficient means of the regular budget for the establishment and running of forestry extension activities, e.g. by using tree planting budgets.

3. Policy makers should decide upon adjustments in the training curriculum of foresters, this means the inclusion of extension related subjects in the PFI curriculum.

Programme planners

1. Programme planners should plan for research, e.g. on-station component research, adaptive on-farm research, and farmer-based extension activities clearly defining the role of, and linkages between, all parties concerned, e.g. researchers, extension workers of the forest department, NGOs and farmers.

2. Programme planners should establish monitoring and evaluation systems in order to learn continuously from the field and make the necessary adjustments in forestry extension programmes.

3. Programme planners should only plan for local organizations with resource management tasks in situations which are necessary for the implementation of such activities.

4. Programme planners should only allow for subsidized tree planting in specific locations with specific target groups, and on condition that contributions by the target groups themselves are made as well.

5. Programme planners should build in their programmes coordination mechanisms with other forestry extension programmes as well as with agencies, such as agricultural and livestock extension. They should also maintain contacts with national and international forestry networks.

Field managers

1. Field managers should make an analysis of the "problems with respect to natural resource management in the local context" through participatory and rapid rural appraisal methods, also taking into account non-tree resources.

2. Field managers should structure and adjust their extension approaches in such a way that they are replicable by the Forest Department at large.

3. Field managers and researchers should define the technical interventions available to farmers in different ecological and socio-economic settings.

5.2 Issues for Further Study

Policy makers

1. Policy makers should clearly define the role of the general public and the private sector in the management of natural resources.

2. Policy makers should analyze the legal and administrative constraints that need to be overcome to make extension effective, such as working procedures, land tenure situations and legal status of local organizations.
3. Policy makers should study the organizational set-up, working procedures, job descriptions and staffing requirements of an extension structure. Issues to be addressed include the relationship between extension activities and operations, the role of extension on government (managed) lands, the role of extension in resource management, conservation and improvement (e.g. tree planting).

Programme planners

1. Programme planners should investigate the standards and criteria for the preparation of forestry extension programmes in different bio-physical and socio-economic settings.

Field managers

1. Researchers and field managers should develop technical interventions through participatory, adaptive research.
2. Field managers should experiment with different extension approaches in different bio-physical and socio-economic settings with different management objectives.

5.3 General Conclusion

The workshop participants felt that it was not sufficient to make recommendations as stated above. A genuine concern was expressed about future development of forestry extension in Pakistan. This commitment is reflected in the Peshawar Proclamation presented at the beginning of this report. Consequently, a suggestion was made for follow-up to the recommendations of the workshop through the establishment of a working group consisting of people of the Forest Department and, perhaps, outsiders concerned with the development of forestry extension approaches and the institutionalization thereof. The working group would have as agenda of work the pursuance of implementation of the recommendations of this workshop. It would address questions such as what should be done, who should do it and how should it be done.

Generally, the participants were of the opinion that this workshop was a step forward towards the acceptance of forestry extension in the main stream of the Forest Department's activities. It was felt that since the first Social Forestry Seminar in 1989, a wealth of field experience was gained and many of the ideas put forward during the first seminar have been followed-up in the field. For the further development and institutionalization of forestry extension it will be essential that in the coming years the Forest Department persists in its commitment to change.

To quote Mr. Egbert Pelinck, speaking on behalf of FAO in his closing statement: "not change for the sake of change, but as a professional duty".

As the forestry extension development process is slowly evolving from a limited number of separate experimental field programmes into a cohesive forestry extension policy, the issue of institutionalization of forestry extension will have to remain high on the agenda of government institutions and donor agencies. Additionally the build-up of "critical mass" to support the creation of an institutional environment that is conducive to forestry extension will have to receive unabated attention. If this workshop has only been able to underscore that message, it will have been successful.

6. PARTICIPANTS, WORKSHOP PROGRAMME, WORKING GROUPS

6.1 List of Participants

No	Name	Designation / Organisation
1.	Azam Khan	Chief Secretary NWFP
2.	Khalid Aziz	Additional Chief Secretary Planning and Development Department NWFP
3.	Yar Mohammad Khan	Secretary Forests, Fisheries & Wildlife NWFP
4.	Abeed Ullah Jan	Inspector General of Forests, GOP
5..	Dr Bashir Ahmad Wani	Deputy Inspector General of Forests, GOP
6.	Mohammad Rafiq	Chief of Section (Environment) Planning and Development Department NWFP
7.	Dr. M Ashraf	Consultant Forestry Sector Master Plan
8.	Dr. K. M. Siddiqui	Director General Pakistan Forest Institute
9.	Abdur Rehman Khan	Vice Chancellor Agricultural University Peshawar
10.	Ghani Ur Rehman Khan	Chief Conservator of Forests North (NWFP)
11.	Maqbool Ur Rehman	Managing Director Forest Development Corporation
12.	Mohammad Iqbal Siyal	General Manager Forest Development Corporation
13	Shaukat Zaman Babur	General Manager Finance Forest Development Corporation
14	Abdul Qayum	Manager Finance Forest Development Corporation
15	Rashid Arshad	Conservator of Forest Malakand
16	Saadullah Khan	Conservator of Forests Kaghan
17	Ali Akbar Khan	Conservator of Forest Southern circle
18	Haji Ali Asghar	Conservator of Forest Abbotabad
19	Malik Mumtaz	Conservator of Forest Wildlife
20	Abdul Qayum	Divisional Forest Officer Chilas, Forest Department Northern Areas
21	Nasim Javed	Divisional Forest Officer Kohat
22	Dr Sheikh Suleman	Divisional Forest Officer FATA
23	Ali Asghar Khan	Divisional Forest Officer Forestry Extension & Training Peshawar
24	Abdul Jamil	Deputy Director Planning NWFP Forest Department

25	Abdullah	Chairman National Institute of Public Administration
26	S Alamgir Shah	National Institute of Public Administration
27	Ume Kalsoom Addel	National Institute of Public Administration
28	Minhaj Ud Din	Deputy Director Training Pakistan Academy for Rural Development
29	Safdar Ali Khan	Lecturer, Pakistan Forest Institute
30	Chaudry. M Saleem	Conservator of Forests Extension Circle Lahore
31	Ch. M Ihsan Ullah	Divisional Forest Officer (economics) Lahore
32	Munir Ahmad Awan	Conservator of Forests Hyderabad
33	Ishtiaq Ahmad Qazi	Chief Conservator of Forests North Punjab
34	G. M. Khattak	International Union for Conservation of Nature
35	Rahat Ullah	Fuel Efficient Cooking Technology Project, Peshawar
36	Zubaida Khalid	Fuel Efficient Cooking Technology Project, Peshawar
37	Tanveer Ahmad	Fuel Efficient Cooking Technology Project, Peshawar
38	Abdul Qadeer	SID Social Forestry Project Nasir Abad
39	Martti Saarilahti	International Labour Organization Pakistan
40	Karel Cools	International Labour Organization Pakistan
41	Malik Javed	Divisional Forest Officer ILO Project Abbotabad
42	Mohammad Iqbal Swati	Hazara Social Forestry Project
43	S Akhtar Hussein Shah	Hazara Social Forestry Project
44	C. I. Korteweg	World Food Programme Islamabad
45	M. A. Farooq	World Food Programme Islamabad
46	M. Desta	World Food Programme Peshawar
47	A. K. M..Fazli Rabi	World Food Programme Quetta
48	Qazi Aftab Hussain	World Food Programme Muzafarabad
49	Peter I Jobber	World Food Programme
50	Egbert Pelinck	FAO-RWEDP, Bangkok, Thailand
51	Cor Veer	FAO-RWEDP, Bangkok , Thailand
52	Dr V. Viriyasakultorn	RECOFTC, Bangkok, Thailand
53	Permsak Makarabhirom	RFD, Thailand
54	Chun K Lai	FAO/APAN, Indonesia
55	Javed Ahmed	Aga Khan Rural Support Programme
56	Gary Naughton	Forestry Planning and Development Project USAID
57	Mahmood Iqbal Sheikh	Forestry Planning and Development Project USAID
58	Ehsan Ul Haq	Siran Forest Development Project
59	Dr. Kurt M. Fisher	Siran Forest Development Project
60	Dr Gerhard Payr	Siran Forest Development Project
61	Mike Lord	Buner Area Development Project
62	Mark Treacy	Kalam Integrated Development Project
63	Fazul Bari	Kalam Integrated Development Project
64	Jehangir Khan	Kalam Integrated Development Project
65	Roger Zurflueh	Kalam Integrated Development Project
66	Albert Munting	PATA Integrated Agricultural Development Project
67	Erik Zigtermans	PATA Integrated Agricultural Development Project
68	Sajudin Hussein	PATA Integrated Agricultural Development Project
69	Gulzada	PATA Integrated Agricultural Development Project
70	Niels Martin	Suketar Watershed Management Project
71	Abdul Ahad Dar	Suketar Watershed Management Project
72	Nisar Ahmed	Suketar Watershed Management Project
73	M. Yousaf Orakzai	Pakistan Environmental Protection Foundation
74	Mumtaz Khan	Social Forestry Project Malakand-Dir
75	Titus Bekkering	Social Forestry Project Malakand-Dir
76	Frans Werter	Social Forestry Project Malakand-Dir
77	Johan Nieuwenhuis	Social Forestry Project Malakand-Dir
78	Nick Van Eekeren	Social Forestry Project Malakand-Dir

79	Alamgir Gandapur	Social Forestry Project Malakand-Dir
80	Zia Ur Rehman	Social Forestry Project Malakand-Dir
81	Guy Duke	Himalayan Jungle Project
82	Abu Saeed	Dir District Development Project
83	Sardar Mohammad Ilyas	Swat Watershed Management Project
84	Per Olsson	Income Generating Project Refugee Areas, Islamabad
85	Kees Zijsvelt	Asian Development Bank
86	Thys Verheul	European Community Islamabad
87	Hamid Ullah	USAID
88	Pim Plantinga	Royal Netherlands Embassy
89	Mohammad Amin	Conservator of Forests Farm Energy & Forestry Project, Swan Camp Rawalpindi
90	Naseem Fazal	Suketar Watershed Management Project
91	Narayan Kaji Shresta	Consultant, Nepal
92	Altaf Hussein	
93	Mohammad Idrees	
94	Raza Ul Haq	
95	M. Sharif Chaudry	
96	B.H. Shah	
97	Sultan Maqboel	
98	Abdul Matin	

6.2 Workshop Programme

Day One

Registration of participants
Recitation of the Holy Quran

Session 1: Introduction
Chairman: Mr. Azam Khan, Chief Secretary NWFP

1. Opening
   by: Mumtaz Khan, PD SFPMD
2. Key note address
   by: Mr. Azam Khan, Chief Secretary NWFP
3. Issues and strategies in forestry extension development in Asia
   by: Mr. Cor Veer, FAO-RWEDP, Bangkok

Session 2: Policy and forestry extension programmes
Chairman: Mr. Khalid Aziz, Additional Chief Secretary
Planning and Development Department NWFP

1. Review of forestry extension programmes in Pakistan: opportunities and constraints
   by: Mr. Abeedullah Jan, Inspector General of Forests
2. Forestry extension in the framework of the national Masterplan
   by: Dr. Mohammad Ashraf, Consultant Masterplan, Ex-Secretary of Forests Punjab
3. Forest policy and the role of forestry extension in NWFP
   by: Mr. Yar Mohammad Khan, Secretary of Forests NWFP

Session 3: Experiences with forestry extension at field level

Chairman: Mr. Abdullah,
Director National Institute for Public Administration (NIPA), Peshawar

1. Comparison of forestry extension projects
   by: Mr. Mohammad Rafiq, Chief of Section (Environment) Planning and Development Department, NWFP
2. Issues in forestry extension per project
   by: representatives of each project
3. Formation of working groups

Session 4: Setting the agenda for the future

Chairmen: workshop organisers and working group leaders

1. Working group meetings 1: the agenda for discussion

Day Two

1. Working group meetings 2: directions for future forestry extension development
2. Experiences and strategies in Forestry Extension in Thailand
   by: Mr. Pearmsak Makarabhirom, Royal Forest Department, Community Forestry Extension Division, Thailand
3. Community Forestry: Principles and Practices for Empowering and Mobilizing people for resources management
   by: Dr. N. Kaji Shresta, Nepal
4. Working group meetings 3: formulation of working programme for projects, programme planners and policy makers
5. Meeting group leaders: preparation of presentations

Day Three

Session 5: Plan of action for future development of forestry extension

Chairman: Mr. Yar Mohammad Khan, Secretary of Forests NWFP

1. Presentations of working groups
   by: group leaders

Session 6: Closure: the road to the future

Chairman: Mr. Iftikar Mohmand, Minister of Forests, NWFP

1. Conclusions and recommendations
   by: Mr. Ghani Ur Rehman, Chief Conservator of Forest North, NWFP
2. Peshawar Declaration
   by: Mr. Yar Mohammad Khan
3. Closure
   by: Mr. Iftikhar Mohmand, Minister of Forests, NWFP

6.3 Working Groups

GROUP I
EXTENSION APPROACH PRIVATE LANDS

1. Mr. Ishtiaq Ahmed Qazi, Chairman
2. Dr. Nasim Javed
3. Mr. Altaf Hussain
4. Mr. Rahat Ullah
5. Mr. S. Akhtar Hussain Shah
6. Mr. Chun K. Lai
7. Mr. Gary Naughton
8. Dr. Sajudin Hussein
9. Mr. Abdul Ahad Dar
10. Mr. Johan Nieuwenhuis
11. Mr. Abu Saeed

GROUP II
EXTENSION APPROACH PROTECTECD AND RESERVED FORESTS AND GOVERNMENT MANAGED LANDS (GUZARA FORESTS)

1. Mr. Mohammad Iqbal Sial, Chairman
2. Mr. Muhammad Idrees
3. Mr. Malik Mumtaz
4. Mr. Muhammad Asghar
5. Mr. Malik Javed
6. Mr. Fazal Saeed Khan
7. Mr. Jehangir Khan
8. Mr. Roger Zurflueh

GROUP III
EXTENSION APPROACH COMMUNAL LANDS I

1. Dr. G.M. Khattak, Chairman
2. Mr. Abdul Qayum
3. Ms. Naseem Fazal
4. Mr. Muhammad Shareef
5. Mr. Titus Bekkering
6. Dr. Raza Ul Haq
7. Ms. Zubaida Khalid
8. Mr. Abdul Qadeem
9. Mr. A.K.M. Fazli Rabbi
10. Mr. Zia Ur Rehman
11. Mr. Mumtaz Khan
12. Dr. Roodad Khan
13. Dr. Gerhard Payr

GROUP IV
EXTENSION APPROACH COMMUNAL LANDS II

1. Dr. Javed Ahmed, Chairman
2. Mr. Mamo Desta
3. Mr. Gulzada
4. Mr. Nisar Ahmed
5. Mr. Nick van Eekeren
6. Mr. Guy Duke
7. Mr. Sardar Mohammad Ilyas
8. Mr. Per Olsson

9. Mr. Narayan Kaji Shresta
10. Mr. Frans Werter
11. Mr. M. Sharif Chaudry

GROUP V
POLICY STRATEGIC AND INSTITUTIONAL REQUIREMENTS FOR FORESTRY EXTENSION I

1. Dr. Muhammad Ashraf, Chairman
2. Mr. Muhammad Pafiq
3. Dr. Bashir Ahmed Wani
4. Mr. CH. M. Ihsan Ullah
5. Mr. Martti Saarilahti
6. Dr. Vitoon Viriyasakultorn
7. Mr. Mahmood Iqbal Sheikh
8. Dr. Fazui Bari

GROUP VI
POLICY STRATEGIC AND INSTITUTIONAL REQUIREMENTS FOR FORESTRY EXTENSION II

1. Dr. K.M. Siddiqui, Chairman
2. Mr. Saadullah Khan
3. Mr. Rashid Arshad
4. Mr. Karel Cools
5. Mr. Albert Munting
6. Mr. Ehsan Ul Haq
7. Mr. Ali Akbar Khan
8. Mr. Ali Asghar
9. Mr. B.H. Shah
10. Mr. Chaudry M. Salim

GROUP VII
POLICY STRATEGIC AND INSTITUTIONAL REQUIREMENTS FOR FORESTRY EXTENSION III

1. Mr. Minhajuddin, Chairman
2. Dr. Sultan Maqbool
3. Mr. Abdul Matin
4. Mr. Safdar Ali Khan
5. Mr. Mohammad Iqbal Swati
6. Mr. C.I. Korteweg
7. Mr. Cor Veer
8. Dr. Kurt M. Fisher
9. Mr. Mark Treacy
10. Mr. Eric Zigterman
11. Mr. Niels Martin
12. Mr. Alamgir Gandapur

PART II

BACKGROUND PAPERS

1. KEY NOTE ADDRESS

Azam Khan,
Chief Secretary NWFP

Inspector General Forests Government of Pakistan, Vice Chancellor Agricultural University, Secretary Forests NWFP, Director General, Pakistan Forest Institute, distinguished delegates, ladies and gentlemen Asalam-o-Alaikum!

It is indeed a matter of great pleasure and a privilege to address you on such an important subject this morning. Development is a slow and painstaking process in which people look for opportunities to meet their basic needs, such as food and shelter, in more convenient ways. The development of an individual, however, might take place at the expense of opportunities for others. People are struggling to get sufficient land to secure their survival or, similarly, people cut a tree before their neighbour gets the opportunity to cut it. This phenomenon in combination with the enormous increase of population leads to fast deterioration of commonly shared resources such as air, seas and forests. This clearly observable process has brought the issue of environmental degradation to the limelight of the development discussion. Development should not only mean progress in economic terms, but it should also take into account the sustainability of renewable natural resources to secure future benefits for our children. The National Conservation Strategy is the national expression of concern for such issues. At provincial level, NWFP government has undertaken Sarhad Provincial Conservation Strategy (SPCS) which is an effort to translate the national strategy into an implementable action plan for the province. An Environment Section within the Planning and Development Department has been created to integrate environmental concerns in development planning. Also, the provincial Environmental Protection Agency is being strengthened.

In the discussion of environmentally sustainable development a major concern is the management of natural resources. In NWFP, the largest government institution involved in the management of natural resources is the Forest Department. At least 14% of the area of NWFP is still under forest cover and 53% is referred to as range and wastelands and form together the potential working area of the Forest Department.

Management of natural resources implies taking into account opportunities and constraints in achieving the goals set for economically and environmentally sustainable use of the natural resources. In the past, the local people were always seen by the Forest Department as a constraint in reaching a sound management system. People had to be kept out of forest areas or else the forests would be destroyed. However, this view is changing rapidly. Instead of

considering them a problem, people are looked upon as means and end of sustainable management of the country's natural resources. Without involvement of the people in management of natural resources the areas will deteriorate more. Firstly, it is financially unfeasible, if at all desirable, for the government to expand its machinery for management of natural resources in each and every community. Secondly, often traditional management systems and a wealth of knowledge exist at local level which can be put to use for sustainable management, if properly tapped and supported. Involvement of local people would imply that local management systems would be maintained and supported for improvement.
Neglecting these local systems would certainly mean their total disappearance and consequently the absence of any locally accepted regulations of resource use. This could lead to further destruction of the resource base.

"Forestry extension" addresses precisely this issue of supporting and enabling the local population to manage their trees, forests and rangelands in an economically profitable and environmentally sustainable way. Thus, forestry extension recognises the importance of local people in resource management unlike traditional forestry approaches. Such an approach will be a new challenge to the Forest Department. In a wider context a forestry extension approach ties in with the overall development plans and policies of the government encouraging local initiative for self development. The National Rural Support Corporation and the Sarhad Rural Support Corporation are steps in the same direction. Village organisations created by these programmes could very well perform the tasks of management of natural resources if properly guided and supported.

Until now the experiences with this fundamentally different approach towards resource management are mainly limited to pilot projects of which most are represented here in this workshop. Moreover, most of these efforts to develop forestry extension are donor driven and a danger exists that these initiatives are too expensive and unfeasible to be continued at the government's own expense. It is time to bring these projects to the mainstream of government activities and assess their validity according to government policies and their possibilities for institutionalisation.

Therefore, this workshop is very timely and appropriate. The new tasks ahead for the Forest Department need to be defined. The experiences of the pilot projects need to be analyzed in concrete terms as to what the Forest department should do or not do in different ecological and socio-economic conditions. I hope the workshop also results in a concrete work programme for the projects themselves, enabling them to focus their attention on issues that are pertinent and approaches that are promising.

Similarly, the definition of (new) tasks for the Forest Department will not be sufficient to ensure their execution in the field. For that to occur, one would need an institution capable of implementing these new tasks. The existing capability of the Forest Department is admittedly inadequate to meet the requirements for a forestry extension approach. An institutional adjustment of the department in the broadest sense would be necessary in order to increase its capability. Changes might be needed in policies, organisational set-up, job descriptions for different levels of staff, procedures of work, and criteria of performance evaluation. Institutionalisation of forestry extension might require creation of new positions. However, it needs to be kept in view that the limited government resources cannot afford large expansion of the bureaucracy. The emphasis should be on increasing the efficiency and changing the orientation of the existing organisation. More fundamentally, the staff development system, executed by the Pakistan Forest Institute in these premises, would need careful reconsideration in order to create a new generation of foresters, suitable for a job not only dealing with trees, but with people as well.

But such a stage is still a long way off. The creation of a proposed social forestry wing in the Forest Department of NWFP can be considered a first step in the direction of institutional change in the department. However, the process of institutionalisation should also take place in response to the development of activities in the field. I hope the workshop outlines the perspective of institutional change, taking into account the capabilities of the Forest Department as well as government resources. Issues such as the role of the traditional territorial forestry in extension; the role of the forest department in different land tenure situations such as protected forests, communal and private lands; and the needs for social organisation, will hopefully belong to your issues for discussion in the workshop.

We look forward to the results of workshop and hope to benefit from it in shaping the government's response to the donor conference on the Forestry Sector Master plan scheduled next week and in planning for the US$ 100 million loan that the multilateral donors are considering for the support of the forestry sector. However, the input in the design of new projects will not be the only result of the workshop. It will equally be important to elaborate a practical follow up programme for the attainment of the objectives set in this workshop. I wish you all success in your deliberations.

On this occasion I would like to express my gratitude and thanks to the sponsors of this workshop the Government of the Netherlands, the FAO and USAID. Thanks are also due to the Director General Pakistan Forest Institute who has hosted this workshop.
I wish you every success in your endeavour.

Thank you.

2. APPROACHES TO FORESTRY EXTENSION IN NORTHERN PAKISTAN WITH A FOCUS ON NWFP

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1 INTRODUCTION

1.1 BACKGROUND

The traditions of forestry in Pakistan are old. This is especially true of North-West Frontier Province which has the country's most and best forests. For a long time, forestry in Pakistan focused on conservation of the existing forests protecting watersheds. Promotional forestry including nurseries' raising and afforestation started in mid-sixties but the programme's pace accelerated only after the re-creation of the provinces in 1969. Since then, numerous afforestation projects have been undertaken in NWFP mostly with donor support. Most projects have been working on private and communal lands. The approach has been for the forest department to seek the land owners' consent and to plant trees on their lands. Protection would also be the forest department's responsibility.

The forest department has made considerable achievements in term of awareness raising, improvement of technical knowledge and skills, and restoring greenery to the denuded land scape. However, with the size of afforestation areas under its management increasing, the department is faced with difficulties to effectively protect and maintain them. It has to keep a large and expensive bureaucracy because few people are able and willing to assume the responsibility for their plantations' protection. The department too fears that the plantations would be destroyed if these are returned to the people. The plantations' sustainability is a concern with all.

The problem of conserving existing state forests and forests on private and community lands in the custody of the forest department is also escalating with increasing population and dwindling resource. While the department has effectively protected some state forests, degradation of the several private and community forests has been inevitable.

From this concern has stemmed the concept of participatory forestry. In fact, public participation is steadily becoming the approach of all major projects for afforestation on private and communal lands. Some projects are also seeking to address the more complicated issues of state and community forest management through forestry extension. Most of the participatory forestry projects are donor assisted.

1.2 EXTENSION COORDINATION NETWORK

In early 1990, the participatory projects in northern Pakistan felt the need to coordinate their forestry extension efforts and the informal network of extension coordination was born.
The forum meets periodically on a rotation basis in different projects. The purpose is to share experiences, avoid overlaps, and possibly standardize approaches to forestry extension. The projects participating in the network are:

- Agha Khan Rural Support Programme (AKRSP), Gilgit
- Suketar Watershed Management (SWM), Mirpur, Azad Kashmir
- Forestry Planning and Development Project (FP&DP), Islamabad
- Kalam Integrated Development Project (KIDP), Swat
- Fuel Efficient Cooking Technologies Project (FECT), Peshawar
- Hazara Social Forestry Project (HSF), Abbottabad
- Social Forestry Project Malakand (SFP), Saidu Sharif Swat.
- Kala Dhaka-Area Development Project (KDADP), Mansehra
- Income Generating Projects for Refugees' Affected Areas, Forestry Extension Project (IGPRA Extension), Peshawar.

Some of the projects are actually area development projects with a forestry component. FECT project does not have any forestry component, however, it is collaborating with many of the projects in the energy conservation part of their activities.

1.3 MOTIVATION FOR THE STUDY

In one of the meetings of the extension coordination network, the participants expressed the need for a systematic study of the forestry extension issues and strategies in different projects. The study would gather the available experience with a purpose to help the projects in the appraisal and improvement of their respective approaches, to avoid duplications, and to secure sustainability of forestry extension.

Thus, it was proposed to hold a forestry extension workshop to provide a platform for thorough discussion of the forestry extension issues and approaches. The outcome of the workshop would be: (i) a synthesis of the successes and problems of the past; and, (ii) guidelines for the projects, forestry departments and policy makers to stimulate the process of forestry extension on sustainable basis. A comparative analysis of the extension approaches would precede the workshop, and this study seeks to fulfil that requirement.

2 APPROACH TO THE STUDY

2.1 DEFINITION OF FORESTRY EXTENSION

The report employs the term forestry extension in its wider meaning. This is warranted by variations in the NWFP's environment for forestry extension which must deal with conservation of the state forests encumbered with peoples' rights, raising and managing forests on community lands, improving productivity of open-access forest lands, and tree planting on private land. Moreover, in many areas, forestry is not a high priority despite forestry interventions being potentially useful and necessary. Thus, beside being a communication process, forestry extension also has to be the vehicle for institution building especially for community forestry whose success heavily depends on the strengths and quality of community organizations.

Accordingly, for the purpose of this study, forestry extension is defined as a communication process to induce change as well as an enabling mechanism for the people to harness the innovations' benefits in perpetuity. More definitely, the term encompasses awareness rasing about the forestry issues to be addressed, motivating the people for changes, imparting them necessary knowledge and skills, introducing the innovations, facilitating their adaptation, and supporting or creating institutions necessary to sustain the innovations' benefits.

2.2 SELECTION OF PROJECTS

The forestry extension network has 9 component projects, and the following 7 among them are included in the study:

- Suketar Watershed Management Project (SWM), Mirpur, Azad Kashmir
- Forestry Planning & Development Project (FP&DP), Islamabad
- Kalam Integrated Development Project (KIDP), Kalam-Behrain, Swat
- Fuel Efficient Cooking Technologies Project (FECT), Peshawar
- Hazara Social Forestry Project (HSF), Abbottabad
- Social Forestry Project Malakand (SFP), Saidu Sharif Swat
- Income Generating Project for Afghan Refugees, Forestry Extension Project (IGPRA Extension), Peshawar

AKRSP has been left out of compulsion. The disruption in communication due to heavy down pour and ethnic riots made visits to the project impossible. Reflections from the AKRSP's experience in forestry would have been a useful addition, however, not much is lost by not being able to access it. The reason is that all projects of forestry extension in the province that have been studied

are already influenced by the AKRSP's approach to community participation, at least partly. Moreover, the data base has been significantly reinforced by the experiences from a non-forestry project (FECT), a project from Azad Kashmir (SWS), and a country wide farm forestry project (FP&DP).

2.3 EMPHASIS OF THE STUDY

The projects compare and contrast in their extension approaches substantially. The study seeks to synthesize the similarities and differences into a common understanding in relation to the major interventions described above. The analysis focuses on the process of extension, institutional arrangements for extension and post-project sustainability.

2.4 DATA BASE

The information used in the report has been partly obtained from the planning documents and other published and unpublished reports of the projects. A list of the documents consulted is given in annexure-II.

Most of the data is primary, coming from three sources: (1) discussions with project teams, (2) field observations, and (3) discussion with participating farmers and communities.

The opinions about the successes and problems of the extension approaches are largely based on the projects' own perceptions as revealed during the discussions. The field visits have generated contextual data enabling to discern between the situations where a given approach has been particularly successful or caught in problems. The field visits have also partly validated or refined the information received in discussions with the project. Since the field visits were conducted independently the field observations and communities' perception used in the report are largely free from project-bias.

2.5 PROCEDURE FOR ANALYSIS

The first idea was to put the data into matrices for all projects, and to compare the projects across the matrices through deductive analysis. However, due to its large size and "soft" nature, the information did not lend itself to be arranged into matrices in a short time.

Thus, as an alternative method, the data have been synthesized into summary profiles for individual projects which have been compared and contrasted. The project profiles follow a standard format with 12 ingredients. These include project location, area, human population, average village size, physical environ-

ment, economy, social structure, land tenure, interest groups in relation to forests or potential forest lands, project objectives, major interventions and extension approach. Description of the extension approach covers main elements of the approach, institutional arrangements for extension, assessment of the approach and strategic changes.

The profiles do not carry all the data used in the report. Instead, these provide the contextual basis for comparison of different projects and the major issues across which the projects have been compared.

Lastly, the study focuses on the extension approaches as policies and strategies for participatory forestry under different contexts and for different interventions such as private nurseries, community plantations and the like. The tools for extension (handouts, brochures, meetings, mass media and others) are not the subject of the study.

3 EXTENSION PROCESS

Extension as an approach is new to NWFP forestry. The provincial forest department has no extension set-up under normal arrangements. The concept has emerged as part of the few donor-assisted participatory forestry projects. Some of these projects are only a year or two old. The hands-on-experience is limited, yet some important messages are available.

3.1 PRE-PROJECT PLANNING

The pre-project planning essentially comprises of preparation and approval of PC-1. Basically a funding request for a project of defined scope, activities and phasing; PC-1 is infamous for its inflexibility and emphasis on reaching physical targets at the cost of objectives' achievement. This concern is only partly valid. PC-Is do tend to be seen and followed rigidly; however, the rigidity is neither by requirement nor by intention of the governments. The governments would rather prefer PC-Is which lend themselves to effective and efficient implementation. In fact, the character of a PC-I largely depends on its author. The difficulties of inflexibility persist mostly due to the lack of knowledge about the planning process and the inability to use the available mechanisms for flexibility.

The projects with TA components carry out operational planning once or twice a year. Therefore, and due to the privileges of donors, such projects suffer less problems than the projects with no TA input.

3.2 PLANNING OF INTERVENTIONS

In the past, all projects lacked a structured approach to extension. No specific policies for the purpose existed. This resulted in failure and frequent changes in some projects, retarding achievement of the project objectives. The extension approach in FECT saw frequent disruptions, and the approach of Integrated Ex·tension Unit (IEU) in KIDP had to be abandoned only after a few years. Where the approach survived, the projects faced difficulties arising out of the peoples' disputes among themselves and with the projects. In Dargai, SFP had to see destruction of an established plantation due to the problem in the Village Development Committee (VDC) that could not be anticipated in the absence of a structured approach to planning of interventions. The projects like KIDP, SFP and FECT have realized the deficiencies and have decided for comprehensive planning and baseline studies to precede interventions in the villages. However, doubts exist if the structured approach would be implemented as effectively as it is planned. Following the approach is demanding in terms of time, resources and commitment. Other projects continue to lack a structured approach to forestry extension.

The new approach in KIDP, called Participatory Rural Appraisal and Planning (PRAP) is underway. In SFP, the process is called Village Landuse Planning (VLUP). The outcome in both cases is a plan for the village to implement. The plan's implementation may be supported by the project or other sources during and after the project's implementation. The KIDP's PRAP largely depends on input from the local people with the project being a facilitator. The input from the people is slow to come and increases the cost of the exercise. Planning by the people themselves also entails the risk that environment related activities may escape the village plan if not a high priority with the people. The outcome of the VLUP under SFP has been only partly documented. Nonetheless, it supports the KIDP conclusions that the professionals' team needs to interact more in the planning process to compensate for the lack of information and skills in the villages.

Many of the projects have inadequate conceptual input behind their approaches. This explains for the numerous inadequacies in the formation and operation of VDCs in IGPRA Extension and SFH. Frequent changes in the extension approaches of KIDP, and extension running separate to operational activities in SWM is also partly attributable to this factor. KIDP did not have in-house extension capacity, and the extension's support to SWM had been intermittent.

Two projects (KIDP&FECT) were to end last year but have been extended. Another project (FP&DP) was to end this year but is now extended through 1994. The projects fear post-project sustainability problems. It seems, the

latest extensions are prompted by the sustainability factor, at least partly. The sustainability issues did not receive due thought and attention early in the extension processes, and different mechanisms are now being instituted for the purpose.

Moreover, the past is replete with examples of projects collapsing after the donor support dried up. The conclusion is obvious: sustainability has to be a concern from the beginning and has to form an integral part of the extension approach. It is only with timely action during early life of the project that a smooth transition can be hoped.

3.3 SOCIAL ORGANIZATION

3.3.1 Basis and size of community organizations

In discussion with management of the projects (SFH, SFP, KIDP, SWSM), an issue has been presenting itself as to what should be the unit for community organization. Shall it be the compact cluster of houses alone? Shall the individual households around the cluster be also a part of the organization? Shall there be one community organization for the village regardless it has 20 HH or 2000 HH? And, shall the organization be broad based or representative?

The idea of community organization in the pioneer forestry projects (KIDP and SFPM) has been partly borrowed from Agha Khan Rural Support Programme (AKRSP). Both the projects opted for representative organizations despite knowing the emphasis of AKRSP on broad based organizations. In contrast, Sarhad Rural Support Programme which emanated from AKRSP, went for broad based organization. However, the recent review mission of SRSC also concluded that the AKRSP approach to community organization can not be replicated unaltered' every where. The main reason is the social heterogeneity and large size of the NWFP villages in difference to Gilgit and Chitral. Thus the approach of representative organization seems appropriate. However, the problem of intra-community communication will have to be solved, if the projects continue with representative organizations.

To this end, KIDP intends to standardize the unit of community organization on mosque basis. This implies, one village can have more than one independent community organization. It is feared that such an approach might add to friction in the villages, especially if they would be sharing the ownership or use of resources. The thinking in SFP is to go down and organize the communities on sub-section basis. It entails similar problems as with the KIDP mosque idea. In addition, the question arises as to how far one can go down. Villages have one or more tribes, each tribe has sub-tribes, sub-tribes have sections and onwards. The need for putting a limit is obvious.

3.3.2 Political influence in community organizations

None of the projects having a community organization component have explicit policies to exclude politicians from village organizations. Yet most of them endure to keep the organizations free from political influence. For the reasons explained in para 4.2.2., it is fair for the projects not choosing to work with political institutions, but a deliberate attempt to keep them out is not good either. The main problem with the political institutions is the peoples' lack of faith in the legitimacy of the political process. However, if a politician is indeed a popular person and the interest group he seeks to represent has faith in him, the projects should have no hesitation in accepting him to the community organization. A genuine leader could in fact prove to be an asset.

3.3.3 Social environment

A lot has been written about the social factors responsible for the success or failure of a participatory programme. Elaborating on them is neither the requirement nor the intention of this study.

Nonetheless, field visits and discussions in the different projects have re-affirmed that small, literate, homogeneous, mobile, oppressed and needy communities are generally easier to work with. Given the clear and enforceable tenure, effective local leadership and a committed extension worker participatory forestry is likely to succeed better in such areas (KIDP, SFP, SWM).

3.4 TECHNICAL PACKAGES

3.4.1 Inflexibility

Sometimes the technical packages to be supported by extension give very narrow choices to the farmers. Examples are the multi-pot stove offered by FECT, and working with a single species of Eucalyptus by FP&DP. The people have virtually no choice and are forced into a situation of "take it or leave it". This reduces participation. People hoping and asking for alternatives are excluded. The risk of working with a solitary product is also large in the event of failure, say if market does not develop for Eucalyptus plantations under FP&DP.

3.4.2 Technical infeasibility

Frequently, the packages sought to be promoted by extension are not pretested. The first tests are with the people themselves. This is exemplified by SFP promoting reseeding of hillsides with grass seeds and seeking to

improve productivity through the use of fertilizers. The practice did increase productivity but returns to investment have been low. The farmers and communities are already accusing the intervention to be extravagant and wasteful. The extension would certainly have a difficult time to motivate the people for an alternative technical package.

3.4.3 Inconsistency with local demand

Each project has its own objectives which often do not reflect true aspirations of the people. For, they are not involved in the project's preparation. Consequently, the projects end up offering what they think is good for the people and not what people want. Example is pressing for grasslands' improvement while peoples' preference is for tree planting or vice versa. Similarly, few if any of the projects involve people in the choice of species for raising nurseries and plantations. They raise and promote trees which they consider good for the people. The project's perception of what is good for the community may be right but it may not be thrust on the people. In such an event, a good educational and motivational effort would have to accompany or preferably precede interventions.

3.4.4 Weak implementation

Weak implementation of the technical packages greatly constrains the extension effort. Examples from SFP as well as from the watershed management projects indicate that, at times, the areas for which the agreement between the Forest Department and the village has been expired are inadequately stocked with trees or grasses. Now that the extension's task is to motivate and prepare the people for assuming the plantations' responsibility, they are reluctant to accept the under-stocked areas. The extension can not escape embarrassment.

3.5 MANAGEMENT OF INTERVENTIONS - PLANTATIONS' PROTECTION

Social control especially in relation to plantations' protection has also emerged as an issue. The projects' experiences as well as individual opinions in the projects vary. Some, especially TA, hope that community organizations can grow strong enough to exercise social control for effective plantations' protection. Others, mostly locals, are pessimistic. They feel social controls would have to be reinforced with additional measures such as employment of watchmen. It is hard to disagree with the second opinion.

The lesson from plantations under watershed management projects is that the same person or group of people were able to effectively protect their plantations which were close-by and were in sight of the households. The same

people failed to protect plantation when it was out of sight (SFH). This implies that someone would always have to watch for the plantation regardless of its ownership, location and tenure. Moreover, even the implementation of social controls has to be watched by someone.
Some people suggest to revive the old system of protection by all house-holds in the village on rotational basis. However, this option is fraught with problems. Firstly, improved accessibility and greater mobility is causing exodus of manpower from the villages. Some households may not have any male member to assume their turn. Secondly, a lot of people are involved in small trade or other jobs. They would have to sacrifice their day's income to be available for their turn, and this may not be making economic sense to the household.

Given these facts, it seems, plantations' protection especially on community and open access lands would always warrant a watch-man. The community may well pay for him. The extension approaches need to reckon with this reality, and work on enabling the communities to employ chowkidars preferably before the termination of the project support.

3.6 PROVISION OF INPUTS AND ALLOCATION OF BENEFITS

3.6.1 Subsidies and incentives

The projects are working with incentives. Some are directly subsidizing their activities, some indirectly. All share the experience that, once granted, subsidies are difficult to withdraw without risking the project objectives. Moreover, it increases the people's dependence and depresses their initiative as experienced in the watershed management projects. Thus, recurrent subsidies like protection cost of the plantation all through the project period need to be avoided. Where essential, subsidy may preferably be a one time grant such as supporting an infrastructural improvement activity in the village (KIDP, SFP), and providing free saplings with no liability for planting or protection costs (FP&DP, SFP). At the higher level, the agreement might also resort to modifying the tax structure to encourage growing.

3.6.2 Diffused interest in common resources - village savings

The individuals' motivation to participate and contribute towards improvement of communal lands greatly depends on benefits of improved management. The returns to improved management are substantial indeed (SFP). However, if the income is distributed over the population, the individuals' share becomes too small and insignificant to inspire them for support to improving productivity on the community lands. In such a situation, it is more useful to bundle the returns into a village saving programme to finance development activities of collective interest to the people. This has a greater discernable impact, and increases the peoples' interest in the plantations. However, with the growth in savings, the

temptation and demand for individual distribution of the fund also grows, and maintaining the saving process becomes difficult.

3.7 FOLLOW-UP

3.7.1 Monitoring and feedback

The extension approaches suffer from lack of feed back and follow-up. (FECT, HSF, IGPRA Extension, SWM). Barring odd exceptions, projects do not have adequate monitoring and follow-up mechanisms. The lack of good monitoring and follow-up has implications for adaptation and replaceability. In FECT project, the extension staff very ably demonstrated the advantage of improved stoves to the communities. However, in many places, despite being convinced of its advantage, the households did not use the stove. Some even sold them. The main reason has been the lack of feed back and follow-up. The SFP is faced with a similar question of whether or not the community plantations would be managed under proper management plans, if there is no follow-up by the forest department.

3.7.2 Marketing

The notion of forestry being a long term investment is changing. The introduction of fast growing species, declining forest resources and increasing demand have much shortened the period between planting and the first harvest becoming available. Thus, even the projects of short duration confront marketing issues.

The projects included in the study do not have substantial marketing experience except some activities under FP&DP, FECT and SFP. KIDP produces a large volume of timber but, due to its monopoly on timber harvesting, Forest Development Corporation markets the timber directly. The local people are not involved.
The experience of FECT with sale of stoves and understanding of FP&DP is that the private sector is already efficient in marketing, and the public sector needs to support the process instead of inducing alternatives.

In marketing trees, the 'middleman' is accused of getting large profits and reducing returns to growers. The institution of middleman is not necessarily bad. In fact, he is providing the much needed investment, management, and experience in marketing. FP&DP is seeking to address the issue by improving communication channels to enable growers and consumers to make informed decisions.

Suggestions of marketing committees are also floating around to substitute the middleman. Thus, if greater return to growers can be ensured through better market information, the 'middleman' can be allowed to operate and even be

supported. The public sector has a role to play in facilitating the dialogue and communication between the different interest groups.

The FP&DP's conclusion regarding the usefulness and efficiency of the middlemen is also supported by limited marketing experience in SFP. The SFP's experience also is that it is more efficient and economical for the communities to sell their grasses, shrubs and trees on stumpage basis. Managing the cutting and marketing by the committees themselves proves difficult and expensive.

Another manifestation of marketing support is to understand the market. Thus, a market oriented extension programme has to interact in the survey of markets and marketing processes (FECT, FP&DP). Beside ensuring better prices for tree growers, the survey results could also be input to choice of species for nurseries and plantations. However, the existing demand assessed through marketing surveys may not be the only guide to the choice of species. Sometimes market may be supply driven. This is indicated by the increasing interest of industries and small consumers in Eucalyptus after its propagation under FP&DP. Eucalyptus is a non-traditional tree and was in little demand initially.

4 INSTITUTIONAL ARRANGEMENTS

Institutional arrangements for forestry extension have three components: government institutions, community organizations and NGOs.

4.1 GOVERNMENT INSTITUTION

Forest department is the government agency concerned with forestry extension. It is responsible for the management of the existing forests and is mandated to promote forestry on private and community lands. Forestry extension is institutionalized in none of the projects. In the projects with TA (SWM, SFP, KIDP) extension is mainly the TA's concern. The expatriates do have local counterparts but they are unlikely to stay in extension work after the projects end. In the non-TA projects (HSF, IGPRA Ex-tension), extension is a part of the job of government foresters; however, these projects too have an uncertain future. Their life is short, they lack extension expertise, and their extension component is weakly conceived and implemented. Otherwise, it was a good opportunity for forestry extension to start and stay in the ranks of the forest department.

The inadequacies of the institutional arrangements for forestry extension can be categorized into four: (i) deficient procedures, (ii) lacking expertise, (iii)

inadequate incentives to employees, and (iv) inappropriate organizational environment.

4.1.1 Rules and procedures

Forest Department was established in colonial times mainly to protect the forests. The job description of foresters and the practice of forestry did not include extension. This arrangement still prevails.

The laws supporting forestry neither provide for forestry extension nor mandate the forest department for it. Especially, no provision exist to form community organizations and to work with them.

Elaborate rules and procedures exist to guide the activities like timber harvesting, forest conservation and afforestation. No such procedures exist for extension.

The financial rules delegating powers to various levels of forest administration are not attuned to extension. For example, a DFO has full powers to sanction expenditure on tree planting, he has only nominal powers to sanction expenditure on printing (extension material), and has no power to host a meeting of a village development committee or a group of farmers.

4.1.2 Expertise

The curriculum for foresters' training at the solitary Pakistan Forest Institute does not include forestry extension. Thus, few foresters have professional knowledge in extension. The few participatory projects are providing some on the job exposure but the efforts are not clearly targeted to capacity building in forestry extension. This is not to suggest that the forest department needs to import large scale technical assistance in extension. The need is for good and enough expertise in extension which may be locally developed with some expatriate TA for a limited time.

4.1.3 Incentives to foresters

The forester's traditional job has a status, perks and privileges associated with it. A DFO responsible for state forests' management would have a free family accommodation, a full time transport, and a lot of administrative and financial powers and means. The forestry extension job offers few, if any, of these facilities and on a considerably smaller scale. Thus, projects have enormous difficulties in getting and retaining good foresters in extension work. This is despite additional financial incentives offered to them formally or informally by the projects.

4.1.4 Organizational environment

The organizational environment in the forest department is not conducive for extension work. Being a full time extensionist is not attractive to foresters for the reasons already mentioned. An alternative is to integrate extension with other activities in the foresters' mandate. This is hampered by the lack of expertise and provision in the rules. Few would accept the additional work of extension, if they can do without it.

The persons assigned to forestry extension are often inexperienced or those who are not liked or trusted by the administration for other jobs. The incumbents see their transfer to extension as a punishment. They try to avoid the job or to endure it for as little time as possible. This translates to frequent transfers in forestry extension. The donors' influence occasionally causes exception to this phenomenon for their specific projects.

The preceding analysis holds good for all forestry extension programme in the studied projects. Examples from the past and from other provinces also support this conclusion.

Forest division is the unit of administration in the forest department. A DFO looks after one forest division. Mostly, the development projects too are implemented by DFOs. Some DFO's perform specialized jobs such as silvicultural research. Given this scenario, the forest divisions in the department can be grouped into three:

- Territorial forest divisions which are mainly active for protection of the state controlled forests. Occasionally, forestry activities on private lands may also be undertaken (Haripur Forest Division).
- Projects which mostly deal in afforestation and soil conservation on private and community lands (SFP).
- Specialized units (Working plans, silvicultural research). Only the first two categories are relevant to the present discussion.

The examples of popular projects of FP&DP and SFP suggest that forestry extension is more successful when the participatory projects are separate entities independent of territorial forestry. When extension forestry is with territorial foresters, they have to frequently swap the two conflicting roles of policing and extension which is difficult and even counter productive. Moreover, motivation and opportunities for a meaningful involvement in the extension work are limited under territorial forestry. This explains the difficulties continuously faced by KIDP to get their territorial forest staff into the extension work. Similar is the experience of FP&DP. Their activities in NWFP were initially carried out by territorial forest staff but were later placed under a separate DFO Social Forestry.

A complex situation is presented by KIDP which deals with state forests with community rights in it. There, participatory forestry can not be easily separated from territorial forestry. This in fact holds for all the state forests in Malakand civil division and Guzara forests in Hazara.

While separation of participatory forestry from the protection forestry at higher levels is considered to be useful, the experience from SFP, IGPRA Extension, and SWM suggests that, within the individual participatory forestry projects, extension and interventions' management need to be integrated. Pursuing extension as an aim through separate extension personnel, working parallel to the management staff in the project, is ineffective and wasteful. SFP started with one RFO dealing with afforestation, pasture improvement as well as extension. Later, the activities were split and assigned to different RFOs only to re-discover in the next two years that, for participatory forestry to be successful, extension and interventions' management have to be integrated at the field level.

The successful examples in KIDP, SFP, SWM, FP&DP, HSF all indicate that success of the extension approach greatly depends on the person carrying out the extension work. Expertise and good institutional environment alone are not enough. It has to be the right person with an aptitude for extension working in a conducive environment to make the extension a success.

The observations from different projects (FECT, SFPM, FP&DP, KIDP, HSFP) suggest that the private sector has a great promise to take over part of the forestry activities and to reduce the burden on public finances. Private tree nurseries, and privatization of production and marketing of stoves in FECT project are examples. This implies that private institutions need to be encouraged to steadily take over what they can successfully do. Such an encouragement warrants effective linkages of the private sector with forest department and PFI. Yet, the conclusion from all the projects also is that the private sector can not completely substitute for all public services, especially, extension. Forestry extension is a recurrent process of supporting the farmers with growing knowledge and changing technologies. Thus, an institutionalized extension arrangement will always be needed for feed back, follow-up and improvement on participatory forestry.

4.2 INSTITUTIONS AT COMMUNITY LEVEL

From comparison of the different projects, two distinct approaches have surfaced in relation to institutional arrangements at the village level: (1) key communicators, and (2) community organization.

4.2.1 Key communicator

The "key communicator" approach is common to all projects although different terms are used for the purpose. SFP calls him "village motivator". The Field Demonstration Advisor in FP&DP named him as "Key person". For FECT, it is "respected couple". In all it means that a person or household with better understanding and initiative is chosen to serve as communication channel between the project and communities, and to act as a focal point for farmers' training. The approach is predominantly used for diffusions of innovations working with individual households such as private tree nurseries, tree planting on private lands and farmers' training. In a few projects, it has also been used for raising awareness and mobilizing community support for the project activities (FECT, SWM, HSF & IGPRA Extension).

The approach has been particularly successful in working with individuals on private lands with clear and enforceable tenure. Using the approach for mass awareness has a limited effect due to the slow pace. Similarly, the use of key communicators alone is not enough to mobilize communities for management of the village commons.

4.2.2 Community organizations

Two among the studied projects (KIDP & SFP) have some years of experience with community organization. The institutions resulting from the process are called Village Organization (VO) in KIDP and Village Development Committee (VDC) in SFP. For convenience, this study refers to both of them as community organizations.

The community organization approach in KIDP & SFP is warranted by the communal nature of the forests or hillsides they deal with. Admittedly, the individuals' interest in the communal property is diffused and small. In the absence of communal management, the resource use decisions are taken by individuals independent of each other. This results in the resource abuse and deterioration. To rehabilitate such lands for sustainable productive utilization, decisions must be taken collectively and the eventual benefits shared equitably.

KIDP & SFP both share the experience that the decision making process in the villages is in transition. The traditional village institution of "Jirga" (a village body dominated by influential village elders) is steadily eroding. The political and local government institutions present themselves as alternative but they are young and inexperienced. Moreover, due to the instable political process, these institutions exist intermittently and lack credibility.

The influence as well as relevance of "jirga" has decreased. This is due to the society loosing its tribal features to the process and outcome of socio-economic development. The "Jirga" is not representative especially of the

lower tiers of the society. In competition with the elite, other and new interest groups demand a role in decision making. Likewise, against the old and elderly people manning the "jirga", youth want a greater say. Yet the traditional elders retain considerable power and influence. Given these realities, both the projects are supporting new village organizations which, they hope, would be more representative and would spear-head local self development. Practically, this is a modification of the old "Jirga" system. The lesson is that the traditional decision making institutions in the villages may be inadequate but they are not altogether irrelevant.

Despite the numerous successes of KIDP and SFP with community organization, their approach shows considerable need and room for improvement. The major weaknesses in the community organization process are: (1) all interests groups are not duly represented in the organizations, (2) their training is lacking either in intensity or content, (3) they are not formally anchored into the system, (4) their working procedures are not adequately elaborated and followed, (5) their involvement in interventions planning is weak, (6) their obligations especially to post project sustainability are not clearly understood and formalized, (7) the distribution of the projects' benefits is left open resulting in disputes, and (8) communication between the community members and their organizations is lacking.

In relatively developed and prosperous areas, community organizations generally include elders who do not feel answerable to the remaining community. They take decisions and think the community members will agree with them. Rarely do they inform the community members about their decision and its outcome or solicit their opinion. The communication gap makes the community members weary of the organization and induces them to raise problems or withhold cooperation (SFP). In contrast, community organizations are more representative and better communicating in less developed areas (upper part of KIDP). The existing community organizations have a long way to go before they can become strong and stable. They lack management capacity. They are also financially weak and legally fragile.

HSF, IGPRA Extension and SWM have recently embraced the community organization approach. Their experience is limited yet important. In all these projects, the approach is weakly conceived and implemented regardless of its need, contextual requirements and implications. In some cases, it seems, the concept has been imposed on the project. The approach is destined for failure if not properly reinforced and streamlined. This may undermine the otherwise promising concept. Should it fail in a few places, it will be very difficult to sell the idea to policy makers even if it succeeds in some other cases. Community organization is not the answer to all problems and in all situations. The projects need to be selective in opting for the approach.

4.2.3 NGOs

None of the projects have active NGOs component except FP&DP which has been seeking a role for them. Setting up of Tree Farmers Society (TFS) and NGO Support Unit are steps in this direction. Likewise, FECT is supporting the emergence of an NGO from with in it which will address environmental and energy education issues under the project. Besides, it has planned to involve existing NGOs in its activities. KIDP too is planning to enccurage their VOs to form associations, and eventually one or more NGOs. Against no or limited NGOs involvement in the past, most projects understand and anticipate a role for NGOs in the future The NGOs are generally seen as sustainability mechanisms providing some of the projects' services to the farmers in post-project period.

4.3 EXTENSION - OBJECTIVE OR MEANS

In many projects (HSF, IGPRA Extension, SWM), extension is implemented as an objective in itself, contrary to its conception as a support mechanism to other project activities like afforestation and soil conservation. The extension goes independent of the other interventions and pursues its own targets of nurseries raising, demonstrations, training and distribution of educational material. Frequently, the extension achieves its own targets but fails to enhance adaptation and sustainability of other major activities.

Regardless the existence or lack of statements in the project documents about its aims, the objectives of extension in actual application are unclear. No distinction is made between awareness raising and innovation diffusion which have different extension requirements. In FECT project, the promotion of sales of cooking stoves had to be taken out from their Environment and Energy Education (EEE) Programme. The promotion of stoves required different techniques than those followed for awareness raising. The two could not go together.
Thus, the projects need to be clearer in what they expect from their extension programmes. If the objectives ld be awareness raising (FECT project), use of mass awareness techniques like print and electronic media and seminars may be useful. However, if the extension is expected to change attitudes and modify practices, as is the purpose in most of the projects, frequent person to person interaction would be necessary.

5 POST-PROJECT SUSTAINABILITY

The sustainability aspects of the extension approaches have been mostly dealt with under different issues in the preceding paragraphs. Nonetheless, considering the profound concern of the forest department and the donor community about post-project sustainability, findings about the key issues are summarized in the ensuing paragraphs.

5.1 COMMUNITY ORGANIZATION

The organizations are deficient in their composition, they are not legally protected, they are young and inexperienced, they lack management capacity, and they are not financially viable. Thus, the community organizations are not sustainable in their present form. They need to be considerably strengthened and reformed before they can stand on their own feet.

5.2 INSTITUTIONALIZATION OF EXTENSION

In the government, forestry extension is not likely to be sustainable unless the forest department is considerably restructured, its extension capacity enhanced, and its mandate re-defined. Removing procedural constraints to extension would also be necessary.

5.3 COMMUNITY FORESTRY

The community forestry model(s) will lend themselves for replication but, unlike the approaches for individual households, these will not be universally applicable and will have to be adapted to different situations. Since the success on community lands is heavily dependent on the socio-economic fabric of the communities which vary greatly and frequently, any sustainable approach to community forestry has to be tailor-made according to the specific conditions of the area.

For community forestry, community organization are the hope but they still have a long way to go. Strong and stable organizations would all likely sustain community forestry but solutions to sustainability of the organizations need to be found first.

5.4 FARM FORESTRY

The success of farm forestry model comprising private nurseries and plantations on individual farmlands has been adequately demonstrated. These activities can stay and replicate given the modest policy back up from the forest department, which may not be difficult to come about. The institution of "key communicator" is quite reliable for farm forestry approaches.

6 RECOMMENDATIONS

6.1 EXTENSION PROCESS

6.1.1 Farm forestry

(a) The farm forestry model has been successful in most of the projects, and may be propagated.

(b) The success of the private nurseries is facing a threat from the forest department nurseries which provide free or subsidized saplings. Therefore, saplings production in the public sector should be adjusted according to the supply from private nurseries. The private nurseries may be given increasing responsibility for saplings' production, with the department only producing to meet the unsatisfied demand. This will release some of the scarce public funds presently committed to forest nurseries. The forest department may also reconsider its policy of free or subsidized supply of saplings.

(c) Each year, NWFP forest department is allotted funds for sowing and planting under normal budget. The allocation for 1992-93 is Rs.19.198 million. Part of these funds are used for nurseries to supply saplings to the farmers. These funds can be conveniently utilized for promoting farm forestry in which the only input from the department is free saplings and technical advice. This calls for a policy decision which may not be difficult to take. This will also partly overcome the concern for the follow up of the farm forestry activities under FP&D project.

(d) The farmers have proved willing and able to assume full responsibility for planting cost and maintenance, if they are assisted with saplings supply and technical advice on individual farm lands with clear and enforceable tenure. The forest department's policy of fully subsidizing tree production on such lands should be discontinued. This will promote private initiative and save public funds.

6.1.2 Community forestry

(a) The community forestry model should be further streamlined and perfected. The model can be replicated but care must be taken to adapt the approach to the socio-economic environment of the area where it is introduced. The approach to community forestry has to be tailor made for each area. Sometimes communities within the same area may require different variants of the model.

(b) Bulk of the wastelands in the north are community owned. Likewise, most forests are either community property or burdened with community rights and

concessions. These lands are most vulnerable to abuses and degradation. Thus community forestry should be a major emphasis of forestry extension programmes in the area. The ease of working with individuals on private lands may not be allowed to distract from the difficult yet important task of community forestry.

6.1.3 Interventions planning

(a) The PC-1s for participatory forestry should be flexible. The provision for a competent review board can help in attaining flexibility in physical targets and their phasing. To this end, annual operational plans would be needed to serve as a tool for seeking re-adjustments from the review board.

(b) Forestry extension, especially for community forestry should follow a structured approach. Adhoc intervention should be avoided. The approaches of participatory rural appraisal and planning (PRAP) and village landuse planning (VLUP) undertaken by KIDP and SFP respectively are steps in the right directions and should be continued. However, the planning exercise should seek a greater input and interaction from the participating experts' team to compensate for the lack of knowledge and awareness in the villages, with least sacrifices in the communities' input. Moreover, the procedures should be simplified and codified such that local experts can implement them without reliance on expatriate technical assistance.

(c) The forestry extension interventions should be guided by the socio-economic fabric of the participating communities. Generally, small, literate, homogenous, mobile, oppressed and needy communities are easy to work with, given the clear and enforceable tenure, effective local leadership and committed extension worker. These factors are of particular relevance in community organization for participatory forestry on common or open access lands.

(d) Land and tree tenure have emerged as the most important factors which determine the people's motivation for participation in forestry activities and must remain focal to all thoughts and plans on forestry extension. This also signals the need for clarifying and documenting the landuse rights before planting, especially where formal land settlement has not taken place.

6.1.4 Technical aspects

(a) The technical interventions to be promoted by forestry extension should be flexible. Instead of a single package, the people should have more than one option to choose from.

(b) The package should be pre-tested for its technical feasibility and well executed to minimize failures which shatter peoples' confidence in the programme, particularly in early years of the project.

(c) The support offered should address the needs and demands of the people. If the proposed interventions are not in demand and yet necessary, extension campaigns should precede to create the motivation and demand for the envisaged intervention.

6.1.5 Marketing

(a) The private sector is efficient in marketing forest products and should be encouraged. The institution of "middle man" is not inherently bad and its substitution with marketing committees or other alternatives may not be better. The distribution of benefits among the growers, middle man and consumers should be rationalized through better market information and improved communication enabling them to make informed decisions.

(b) The sale of stumpage is more efficient and economical and may be preferred to harvesting and sale of forest products by the communities themselves.

6.1.6 Monitoring

The innovative approaches and dynamic process of forestry extension and the complexity of the forestry issues dictate that a good monitoring system must be in place to improve supervision, to provide feed back, to refine the extension approaches and to ensure follow-up. The system should be so designed as would facilitate performance evaluation based on implementation and outcome of the extension activities. Designing the system will require considerable thought to identify and screen the variable for the qualitative assessment.

6.2 INSTITUTIONAL ARRANGEMENTS

6.2.1 Government institutions

(a) The existing institutional arrangements for forestry extension by the forest department should be reinforced. The proposal of separating participatory forestry on private and community lands from the protection of state forests at the provincial level should be pursued to its logical end. The forest divisions and projects with no or limited state controlled forests should fall to social forestry department. The division and projects predominantly concerning state controlled forests with no or little private and community forestry component should remain with the forest conservation department. For units having both

state controlled forests as well as components of private or community forestry, extension forestry should be separated from territorial forestry even with in the forest division; RFOs dealing with social forestry and their staff being different than RFOs and their staff dealing with protection of state controlled forests. This does not necessarily mean creating numerous additional staff positions. Internal re-organization in the forest division or project may well serve the purpose.

(b) Except when awareness raising is the only aim of a project, extension must be integrated with interventions management at the field level. Such an integration will considerably help overcome the problems of creating institutional environment and incentives that are needed to attract people into extension when it is a separate activity. However, where extension would have to be separate, adequate incentives (fiscal and career) must exist to bring in good and willing workers, else forestry extension will only stay a desire.

(c) Transferring the knowledge and responsibility of nurseries and tree planting to the people should not imply a diminished role of the forest department. Instead, the department should have more capacity than before. However, its role should change from planting trees for the people to supporting the people to plant and manage the trees themselves.

6.2.2 Village institutions

Key communicators:
The institution of "Key Communicator" is very effective in promoting private nurseries and tree planting on private lands. They have a role in innovation diffusion in community forestry as well. This arrangement should continue.

Community organization:
(a) Community organizations are a must for community forestry. As far as possible existing organizations should be supported to collaborate with. New community organizations should only be created where necessary.

(b) Politicization of the organizations should be prevented. However, political leaders enjoying genuine confidence of the section they seeks to represent should not be deliberately avoided.

(c) Where new community organizations are needed, the community should not simply be asked to make an organization. They should rather be assisted, especially with consensus building. Otherwise, potential conflicts will be subdued only to re-surface later to the surprise and disadvantage of the project and community.

(d) The office bearers in the community organizations may be for fixed duration. An indefinite period to hold the office allows them to persist even if

a change is necessary. The communities' rights and opportunities to streamline their organization too are reduced. Replacing an office bearer in such a situation is difficult and entails the risk of promoting personal conflicts to the detriment of the organization.

6.3 POST-PROJECT SUSTAINABILITY

6.3.1 Government institutions

Beside the institutional restructuring proposed in para 4.2.1., the following measures are recommended for post-project sustainability of forestry extension:

(a) Elaboration of revised job descriptions for different levels of foresters and amendment in the relevant rules including the rules governing delegation of financial powers. This will also introduce extension as one of the criteria for performance assessment of foresters.

(b) Creation of extension expertise in the forest department especially at the level of DFO and below. This does not mean putting expatriate technical assistance with each DFO. Instead, it should be a well conceived extension training and re-orientation programme implemented in a phased manner over several years. It would be both formal and on-the-job training. The donor assisted projects with TA in extension could provide the platform for such training.

(c) Placing professional extension experts with each Conservator of Forests in Social Forestry to provide conceptual and planning support to his DFOs and their staff in the field.

(d) Development of simple yet comprehensive extension procedures and manuals to assist the extension foresters.

(e) Development of forestry extension knowledge in Pakistan Forest Institute, Peshawar. Such a development is essential for research in forestry extension as well as for imparting extension skills and orientation to the new entrants in forestry profession.

6.3.2 Community organizations

Organizational sustainability:
The community organization should be representative of all interest groups, formed through a process of consensus building. They should have well defined rules of procedure and should be assisted to properly follow them. The intensity and content of training the organization should be improved with a

clear purpose to enhance their ability for decision making and management of self development. The decision making process within the organization should be transparent which warrants greater communication between the office bearers and members of the organizations.

The obligations of the member and the distribution of eventual benefits among them must be clear, pre-decided and formally documented.

Financial Sustainability:

(a) A major question to the sustainability of community organization is their financial resources. Generally, forestry alone is not enough to sustain community organization. Where community organization are predominantly based on forestry, increasing their financial stability must be a concern for extension. In areas where communities receive royalty from existing forests (Kalam, Dir), diverting part of the royalty into village savings to be managed by the community organization should be endured.

(b) In areas where such an arrangement does not exist, the projects should seek early returns from the plantation they help the communities with. This has been successfully tried in SFP. The returns could go into village savings. The priority for the savings' investment should be for the plantation protection and maintenance. Only the surplus, if any, may be invested in other community projects or distributed among the members.

(c) In such a situation, community forestry projects can not be for short term. Instead, they must be there to take the communities through at least one cycle of planting, maintenance, harvesting and regeneration of the plantations. For fast growing species in hilly areas, this means a period of 10-15 years. The approach of short term projects of 3-5 years (HSF, IGPRA Extension) will simply not work.

(d) The community organizations can also benefit from the NGO Support Fund set up in the Environment and Urban Affairs Division, Government of Pakistan. The fund finances environment related projects of Non-Governmental Organization upto a maximum of Rs. 1.00 million for an individual project. Rs.30.00 million are available in the fund for the current financial year (1992-93). The eligible NGOs must have a functioning board of directors and a written statement of aims and working procedure (bye-laws). They must also be registered under one of the existing laws:

- The Societies Registration Act 1860
- The Trust Act 1882
- The Cooperative Societies Act 1925
- The Volunteer Social Welfare Agencies Registration and Control Ordinance 1961
- The Companies Ordinance 1984

With some effort, the community organization can be made to fit into the above framework and thus qualify for the financial support.

Institutional sustainability:
The institutional sustainability of the community organizations is also very critical. There are no easy answers, nonetheless, the following recommendations are made:

(a) The government at higher level is encouraging multi-disciplinary community organizations through SRSC in NWFP, and now through NRSP at the country level. Considering the limitation of forestry to sustain community organization alone, the forestry extension projects should preferably work with such multi-disciplinary organizations where they exist. Where they do not, the projects should try to link their specific community organization into the larger network with clear goal to eventually integrate them. This warrants establishing communication and functional linkages with SRSC and NRSC as the case may be.

(b) Registering the community organization under one of the existing laws mentioned above will provide legal anchorage to the community organization. However, it is unclear if such a registration would suffice for organizations dealing with forestry. These organizations specifically needs power and authority to protect and manage their plantations, with legal support but least control from the government. Sections 17 through 19 of Hazara Forest Act 1936 provide for the appointment of village officers with powers to manage forestry on wastelands, and to take cognizance of violation on it. A similar provision may also exist in Pakistan Forest Act 1927. It may be possible to tap these provisions as additional legal support to community organizations.

(c) A universal unit of community organization can not be recommended either on village size basis or tribal or sub-sectional basis. Instead, the following arrangement is proposed, which is partly the idea from a school teacher participating in IGPRA Forestry Extension Project in Mansehra.

- For small villages (less than 100 households) broad based community organization may be formed in which all members take part in discussion, meetings, and decision making directly.
- For medium size villages (101-400 households), representative organizations may be formed on the analogy of SFP and KIDP. The decision making will be through the representative body. The persons representing different groups will regularly inform and consult their members.
- For the bigger villages (more than 400 house-holds), a representative organization may be formed on village basis. Under this umbrella organization, sub-organizations may be formed either on sectional (tribal) basis or geographical division (Muhallah) basis. The choice for sub-organization would depend on the condition in individual villages. Each sub-organization would work independently, yet under the overall

coordination of the main organization. To ensure such a coordination and communication between the main organization and sub-organization, the heads of the sub-organizations may be members of the main organization.

(d) The community organization is misunderstood as the answer to all forestry problems, especially concerning tree planting and management. The approach is mainly relevant to community forestry including conservation of existing forests with communal rights, and tree planting and management on community lands or open access lands. To thrust community organization on irrelevant contexts is dangerous and should be avoided.

(e) For the protection of plantation on community lands, and open access or remotely located private lands, social controls alone are not enough. The community must be encouraged to decide and implement social controls, but watchman or "Mali" would have to be employed even for enforcing the social controls. This requires financial investment. The extension should not overlook the need, and should prepare the communities to make such an investment.

6.3.3 NGOs

(a) The NGO activities initiated by FP&DP such as Tree Farmers Society should be extended to other projects.

(b) Several participatory forestry projects are working in Malakand. More such projects might come. The sustainability of the community organizations concerns all. The projects should consider the KIDP initiative of supporting a local NGO to explore if one or a few NGOs can develop to service the community organizations after the projects' termination.

6.4 FOR PROMPT ACTION

(a) Eliminate community organization component from the projects where it is not relevant. Streamline the process where it is applicable. For the new projects, appraise the land tenure situation carefully before going for community organization.

(b) Provide extension expertise to the participatory projects which do not have them. Specifically, help them with elaborating a conceptual and implementation framework for extension.

(c) Integrate IGPRA Extension project with its operational component. Extension running parallel and separate to operations is being wasteful and of

no material help. The recommendation is for integrating extension with operation and not for eliminating the extension component.
(d) In projects with functional community organizations (SFP, KIDP), attend to their strengthening in management capacity, legitimacy and organization (more representative, better communication with members and transparent decision making).

6.5 NEED FOR FURTHER INVESTIGATION

Participatory forestry being a recent initiative, information on certain key aspects of forestry extension is lacking. The identified needs for further investigations are indicated below:

(a) This study concludes that while farm forestry model can be easily replicated, community forestry lends itself for replication only if it would be adapted to the area of introduction. It may be worth investigating as to what modifications would be needed under different socio-economic and physical conditions.

(b) Notwithstanding the report's recommendations, the type, size and basis of community organizations constitutes an important area for further investigations.

(c) Institutionalization of forestry extension in the forest department is a complex issue. The recommendation made in the report needs to be appraised together with other possibilities. The creation of extension expertise in the forest department is not as big a problem as is the creation of a conducive institutional environment for extension.

(d) The financial powers to be delegated to the DFOs to enable them to effectively undertake forestry extension also need to be determined as a part of the study suggested above or as a separate investigation.

(e) Some possibilities for legitimizing community organization initiated by different projects have been indicated in the report. The issue definitely needs further thought and exploration.

(f) One obstacle in public financing of the extension is the lack of resources. If forestry extension is to become a continuous support effort to the communities, a certain public investment in institutional infrastructure would be necessary. The government decision for such an investigation will be considerably facilitated if returns from the plantations warranting extension support could be quantified. Such an exercise may include direct returns to the treasury (taxes, duties, royalties) as well as indirect economic gains (job creation, capital generation, self development).

(g) The provision of free or subsidized seedlings to the people is a part of the current debate on forestry extension. There are strong arguments on either side. The impact of this activity on private nurseries and tree planting is obvious. How positively or negatively the two are correlated is not clear. This relationship and its policy implication needs to be clearly determined. The report's recommendations about the issue are based on the projects' perceptions and available information which is admittedly limited.

3. FOREST POLICY AND THE ROLE OF FORESTRY EXTENSION IN NWFP

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1. BACKGROUND

Forests cover more than 14 percent of the land area in NWFP and another 67 percent of our area is marginal and fit only for forestry activities. This makes forestry not only the largest land use of the province, but also the most important one, on which depends our agriculture, water and power generation, industry, environment, tourism, community stability and a host of other activities that affect our well-being.

Well if forestry in our context is so important, its relationships with the people must be many, large, complex, intricate and hence delicate and critical, and therefore need to be brought into sharp focus for better understanding and control. The guiding principles for defining these relationships have been sorted out, enunciated, adopted and followed in the form of national forest policies, such as those of 1894, 1956, 1962, 1980 and 1991.

Although the impact of these national forest policies on increasing forest wealth at the country level has been less than encouraging, at the provincial level there has been a significant increase in the forest area (from 12.8 percent to 14.6 percent) particularly in the years from 1987 to 1992.

To reinforce and further strengthen the national efforts in this regard, the provincial government has embarked upon two important tasks, i.e., the formulation of a Provincial Forest Policy and the Sarhad Provincial Conservation Strategy. The Provincial Forest Policy has been framed to layout broad parameters for strategies and programmes that are more definite, relevant, innovative and action-oriented so as to bring them in consonance with the great physical-biological variability and tenurial complexities that characterize our province. Similarly, the Sarhad Provincial Conservation Strategy is more focused and aims at enabling people to care for their own environments and attempts to integrate development and conservation.

All along in both these policies, a pivotal role has been given to peoples' participation as the building block of the policies. The logic is simple: any meaningful resource conservation and development effort is going to be infeasible, costlier and difficult to implement and enforce without the active participation of the local populace. As the problems of forest scarcity and environmental degradation are people related, these problems therefore have to be solved through their involvement and cooperation.

This directly establishes the need for forestry extension, takes us out of the academic arguments in favour of participation, but lands us into the vast ocean of uncertainty and the more difficult question of how to go about it? That is to say, who is to do what, when, how, and where? But before one can become prescriptive, the descriptive aspects have to be taken care of first so as to provide the basis for the suggestions / prescriptions made.

2. MAJOR FOREST POLICY THRUSTS

One constructive way to plan for the future is to take stock of the current status of forestry extension in NWFP and from there on move toward shaping our future based on projected requirements. Although this could be done in many different ways, one of which is to analyze and compare forestry extension approaches adopted by various projects, I find it useful and fruitful to take a different and broader view of the forestry extension situation in NWFP so as to relate forest policy and forestry extension. The situation analysis presented here is, therefore, in the form of major policy thrusts, which could be categorized into the following:

- resource protection and conservation,
- promoting efficient and equitable resource use;
- resource improvement and development;
- research and demonstration;
- strategic planning, execution, monitoring and evaluation;
- institutional development.

2.1. RESOURCE PROTECTION AND CONSERVATION

Resource protection and conservation for watershed, amenity, ecological and environmental reasons is an important forest policy objective. But protecting and conserving our existing forest resources and other ecosystems against the ever-increasing human and livestock populations, urbanization, rising standards of living and attendant expectations is a formidable task indeed. The prevailing attitudes of people in general toward quick liquidation of forests is a direct derivative of the resource being DISPERSED, REMOTE, OPEN, and VALUABLE ("Green Gold"). Such being the case, measures for ensuring resource protection and conservation have to be based more on promoting "Social Responsibility" and less on adopting "Punitive Measures", the latter being expensive, ineffective and hence unsustainable given the above characteristics of our resources. The emphasis in forest policy therefore has to be shifted from exclusion through coercion to acceptance and conformity through better public relations and inculcating responsible behaviour with respect to resource protection and conservation.

2.2 PROMOTING EFFICIENT AND EQUITABLE RESOURCE USE

Wise and just use could relieve a substantial part of the increased stress to which our forestry and allied resources are subjected. Given the present state of technology in wood use for fuel, construction, industries etc., and the high degree of asymmetry and skewness in forest land ownership and access, improvements on both counts -efficiency and equity- are possible. Recognizing this efficient and more just resource use is being promoted in the Provincial Forest Policy.

2.3 RESOURCE IMPROVEMENT AND DEVELOPMENT

But no matter how well do we protect, use and manage our forests, a simple statistical fact is: it is not going to be enough. The need for resource improvement and development is an imperative that is inescapable. Large-scale afforestation and improvement efforts have to be undertaken with public and private initiatives to expand the resource base and thus satisfy the ever growing requirements of timber, fuelwood, fodder and other products and environmental needs.

2.4 RESEARCH AND DEMONSTRATION

Although both basic and applied research is needed in forestry, the former is usually done by academic institutions such as the Pakistan Forest Institute. The departmental research thrust is therefore on a problem-solving oriented, adaptive research such as the one done by the ILO-assisted project, " Technology and Training in Afforestation and Soil Conservation", and various Harvesting Technique Improvement measures.

2.5 STRATEGIC PLANNING, EXECUTION, MONITORING AND EVALUATION

The successful translation of policy declarations into workable programmes, projects and plans, and their efficient execution, monitoring and evaluation are pre-requisites for optimizing achievement of organizational objectives. These also provide a framework for managerial decisions and serve as basis for control and as an input for future decision making. That is why in the Provincial Forest Policy, strategic planning, execution, monitoring and evaluation have been given due priority.

2.6 INSTITUTIONAL DEVELOPMENT

To operationalize the policy statements made above, an adept institutional mechanism in terms of organizational structure and culture is needed for clarity of purpose and strategy, efficiency, and coordination between the interdependent parts of the organization to ensure organizational effectiveness. A proposal for re-organizing the NWFP Forest Department so as to give it the structure and therefore nurture an organizational culture that is conducive for peoples' participation has been put forth before the provincial government.

3. DISCUSSION ISSUES

A number of issues need to be discussed so as to facilitate the adoption of effective forestry extension in the province. The purpose in identifying these issues is twofold: to serve as flash lights or alert points and to sharpen our understanding of these issues for better tackling.

For convenience these issues have been lumped together into three broad categories:

- issues for policy makers;
- issues for programme planners;
- issues for field project managers.

3.1 ISSUES FOR POLICY MAKERS

Policies, legislation and regulations:
What kind of policies, type of legislation, and set of regulations do we need so that the forestry extension strategy trajectory or flight plan follows the course envisaged for it?

Institutional and organizational issues:
Based on available evidence, an organizational structure for the NWFP Forest Department has been proposed to the government to further the cause of social forestry in the province. Similarly different institutional mechanisms at the community level are being tried toward the same end. However, we need to be open and learn to work in an evolving process mode. Therefore, organizational structure and institutional structure have to be periodically reviewed and evaluated for needed changes.

Investments:
Are the present investment trends in forestry extension of time horizons, of magnitudes, from sources, and directed toward activities to build the needed extension capacity?

External assistance:
Where is the external assistance -technical, financial, intellectual- going to? Is it better utilized for producing direct results or for strengthening local capacities for initiating, managing and sustaining activities with respect to income generation, resource management, productive physical infrastructure creation, and enhancing quality of life?

3.2 ISSUES FOR PROGRAMME PLANNERS

Project and programme planning:
How should the social forestry and forestry extension projects and programmes be planned for the various physical, biological, ecological, land use, land tenure, and socio-economic situations that are encountered in the province? Could we or should we follow and replicate the Malakand Social Forestry approach for institutionalizing social forestry through a three phased strategy comprising of a Trial Phase, Development Phase and Expansion Phase, each with a 5-year time horizon.

Monitoring and evaluation:
What should be monitored and evaluated, at what stage, how, with what frequency, and how to incorporate monitoring and evaluation results into forestry extension projects and programmes? How to deal with qualitative variables that defy measurement such as social and attitudinal variables? All these questions require discussion, investigation and elaboration.

Coordination and collaboration:
Now that the informal networking of forestry extension projects in Pakistan and NWFP has taken a step further and formalized in the form of holding the present workshop, what next is needed to further build on the on-going coordination and collaboration? Shall we continue with the same approach or give it a different direction for developing and re-enforcing horizontal and vertical linkages?

Training and education:
Most of the social forestry projects in NWFP are inter-disciplinary and therefore involve many technical skills such as forestry, agriculture, horticulture, livestock husbandry etc. So shall we adopt the Integrated Extension Unit approach to do the job across the board or try something different? How to inform the policy makers about forestry extension efforts? Through workshops like this? And how to increase the capabilities and skills

of project planners and project managers? What kind of training and education will be needed for these? What about the adequacy and relevance of trainers, training institutions and training materials?

Research and demonstration:
How to identify relevant research needs, and assign priorities and responsibilities for implementation? How much of physical and biological research and surveys vis-a-vis socio-economic research and surveys? In the same context, how much time and money be spent on issue analysis?

3.3 ISSUES FOR FIELD PROJECT MANAGERS

Project and programme implementation:
How should forestry extension be implemented? Shall we integrate forestry extension and activity execution in promotional forestry, but separate extension and protection in conservation forestry? In a nutshell how to operationalize the extension strategy?

Awareness raising:
Are the present public awareness campaigns of forestry extension adequate, relevant, realistic and appropriate? How to link and weigh awareness raising and attitude changes?

Peoples' participation:
The present approach of village development committees is a "Representational Model". Shall we equate this representation with participation? Do village representatives on these committees represent all interest groups? Or shall we go for a much larger participation in the form of village assemblies to qualify it for "Participation Model"? And then the basic questions of participation in what, where, how and at what time?

Field incentives:
How to motivate field workers and village communities? What incentives should be given, in what form, how much, when etc. so that the incentive achieves what it is intended for and does not promote dependence of village communities on the project?

Field coordination:
How to coordinate various project activities in the field so that these contribute to the stated objectives individually and in combination rather than countering each other?

My intention in presenting these forestry extension related issues has been analytical rather than historical or narrative. By so doing I tried to avoid giving individualistic definite answers (of which there are not many!) and thus hope to invite discussion and thus eventually some form of consensus.

4. CONCLUDING REMARKS

While I have posed too many questions and raised too many points to ponder on, I am glad to share with you that the NWFP Forest Department has conceived a comprehensive 20-years Forest Resource Conservation and Development Programme under the banner of **"FOCUS GREEN SARHAD" (FGS)**. The programme runs across the board and involves both private (farming communities, business community, religious institutions, NGOs and public representatives) and public sectors (government departments, academic institutions, uniformed forces) to further the cause of forestry and allied resources in the province through developing extension approaches for the various actors and factors involved.

For any forest development programme it is important to remember that experience in general rural development has shown that neither the "top-down" nor the "bottom-up" strategy of development is as promising as the "Assisted Self-Reliance" approach that transcends both approaches. The underlying principle of Assisted Self-Reliance is working with, rather than for the people. This strategy, which is being adapted and adopted for FGS, "implies no fixed design but a host of elements to be combined in appropriate sequences and amounts" Just to give an idea, a quick run through of the elements of the strategy is given below:

Local organizations:
Creation, strengthening and involvement of local organizations that establish both horizontal and vertical linkages should be pursued.

Multiple channels for action:
Rather than rely only on just one form of institutional linkage whether bureaucratic, co-operative, NGO, etc.- it is more conducive for resource conservation and development to involve multiple channels for action thereby fostering competition and complementarity between the channels.

Blending "indigenous" and "modern" technologies:
Many of the traditional technologies and resource management systems (as exemplified by various grazing systems in Dir Kohistan) are not static and in

fact represent an empirical adaptation to prevailing conditions and thus could be upgraded with some outside inputs for a better fit.

Sustainable resource mobilization:
While some external assistance is likely to be needed and appropriate , sole dependence on outside sources is unsustainable and outright risky. Local resource mobilization mechanisms therefore have to be designed.

Use of paraprofessionals:
Paraprofessionals from within the communities have to be trained so that the services are available within the villages at the programme conclusion.

Organizational re-orientation:
A full-fledged organizational re-orientation is a long and time taking phenomenon and therefore has to come in increments rather than in an instant.

Evolving process approach:
Extension is a process that evolves over time and the main building blocks of which are human and social capabilities and not material or mechanical. Even the latter capabilities come into being and use only through peoples' ideas and motivation. The key to the "safe" therefore lies in human ingenuity, which it is hoped will be available in plenty in the discussions!

Forest Policy & Extension in Pakistan

4. REVIEW OF FORESTRY EXTENSION PROGRAMMES IN PAKISTAN: OPPORTUNITIES AND CONSTRAINTS

Abeed Ullah Jan
Inspector General of Forests

1 INTRODUCTION

Farmers have been raising trees for fruit fuel and fodder since times immemorial but forestry extension as a science is relatively recent in Pakistan. Extension programmes are controlled and guided by foresters who have adequate knowledge of growing trees but they are not well conversant with forestry extension techniques. The role of a forester as an extension agent and his/her associated opportunities and constraints, is discussed in the following discourse.

Provincial Forest Departments have, traditionally and historically, performed two functions namely:

- to manage, administer, protect and utilize the existing forest resources for providing sustained benefits to the owners; and to the state; and
- to establish new plantations on private and public lands and modernize management techniques to increase wood production to meet the staggering needs of the growing population.

Forest Departments have performed these functions with varying degrees of success. The efforts made and success achieved (both on private as well as public lands) can broadly be classified into:

- Afforestation and watershed management;
- Intensive Forest Management;
- Integrated Development;
- Introduction of species through adaptive research;
- Education and training (public and private sector)

After offering a concise description of some historical developments, the following chapter will present a brief review of the various programmes. It is then followed by an analysis of opportunities and constraints for further development of forestry extension in Pakistan.

2 REVIEW OF PROGRAMMES

2.1 SOME HISTORICAL NOTES

Chos act 1900:
In Punjab, a Soil Conservation Act Popularly known as "Chos Act" was promulgated in 1900 (NWFP was a part of Punjab in 1900). This act is much more elaborate than the Indian Forest Act, 1927 or the Hazara Forest Act, 1936 which have only a few sections conferring powers on Government functionaries to take over private property for management. Under the Chos Act, a large number of small and scattered patches of private lands were successfully planted with suitable tree species throughout Punjab Province.

Anti-erosion closures in Hazara:
Prior to 1955 when the first Five Year Plan was launched, there was no distinction between developmental and non developmental activities. The developmental activities were financed from normal budget with the help of regular staff. Large number of small patches of forests were raised at vulnerable sites in Hazara Civil Division but Bherra near Mansehra (100 acres) Hissa (70 acres) and Kashtra near Garbiullah (50 acres) gained wide publicity due to a greater degree of success and higher rate of survival. These closures constituted the first phase of forest extension in Hazara.

The first working plan for Hazara forests in Haripur which was completed in 1963 covered 200 Anti -erosion closures having a total area of 26176 acres treated under Sections 14,15,16 of Hazara Forest Act, 1936.

Thal experience:
The second best example of an extension programme in the fifties was an afforestation campaign in the Thal desert of the Punjab. Since it was not possible to do agriculture without taming the sand dunes and sand laden winds, trees were considered a prerequisite for settlement. The new settlers were provided planting stock free of cost for planting along water courses, on field boundaries and farm roads in the form of single or multiple rows. This was done by setting up a network of nurseries to deliver plants to farmers at the village level. Mosques, schools and other public places were used as distribution centres. Trucks were engaged to deliver the cuttings and saplings at the door steps of the farmers. The dry, dreary and drab landscape of the desert was gradually transformed as millions of trees were planted over a short span of time. Later, the same approach was adopted in the province of Sindh when water was made available from river Indus for development of agricultural lands.

2.2 AFFORESTATION AND WATERSHED MANAGEMENT

Afforestation financed from development budget:
The concept of a development budget or Annual Development Programme (ADP) was formally introduced in 1955 when the first five year plan was launched. With financial allocations made in the successive five year plans forest areas increased partly due to the establishment of new plantations as shown in table 1, and partly due to the merger of erstwhile states of Amb in Hazara and Dir, Swat and Chitral.

Tree planting campaigns:
Pakistan is a forest-poor country, with 0.03 ha. of forest per capita of population compared to the world average of 1.0 ha. The gap is enormous and is still widening with population increasing at more than 3% per annum. It is not possible to narrow down the gap through Government efforts alone. Involvement of the private sector is considered essential. Tree planting campaigns are observed twice a year, once in spring and in monsoon seasons to motivate general public to plant trees and then protect them. In the beginning, it was a difficult task. A few incentives like giving saplings free of cost or at a very nominal rate of one paisa per plant to defence and civil armed forces and 10 paisa per plant to general public; opening of sale points at convenient places; giving wide publicity and dispatching mobile vans to serve remote and isolated villages in the country side were offered. The programme achieved remarkable success with the result that demands now far exceed the available supply of planting stock. Sixty million saplings were distributed in 1980 while the target exceeded 180 million in 1992.

Table 1: Increase in forest area

Plan	Plan period	Allocation (million Rs)*	Area forested (million ha)**
1	1955-1960	39	1.28
2	1960-1965	87	1.68
3	1965-1970	140	2.08
4	1979-1978	214	2.83
5	1978-1983	1223	2.96
6	1983-1988	1623	3.15
7	1988-1993	1927	4.22 ***

Source: * Five year plans
** National Commission on Agriculture (1989)
*** Forestry Sector Master Plan (1993)

Watershed management on private lands:

With the signing of the Indus Water Treaty in 1960, water from the three eastern rivers was shared with India. The entire irrigation system in Pakistan was redesigned which led to the construction of Tarbela dam in NWFP, Mangla dam in Azad Kashmir and a large number of barrages and link canals in Punjab and Sindh. Watershed Management in catchment areas suddenly received higher priority and three watershed management projects were consequently launched in 1965:

- Mirpur district of Azad Kashmir and Gujar Khan Tehsil of Rawalpindi district by the Watershed Wing of WAPDA.
- Murree hills and Kahuta tehsil of Rawalpindi by the Forest Department, Punjab (defunct West Pakistan).
- Daur and Kaghan watershed of Hazara by the Forest Department, N.W.F.P. (defunct West Pakistan).

For implementation of these projects, separate watershed extension wings were created in WAPDA, Rawalpindi and Abbottabad Forest Circles with identical aims and objectives but with different approaches. The Watershed Project of WAPDA gave priority to concrete structures on cash payment whereas the Forest Department in Murree hills placed emphasis on planting trees and consolidating slopes with grasses and brushwood. The technique in Hazara was the same as in Murree hills except that instead of cash payment, food ration of wheat, sugar, butter oil, tea and powdered milk donated by the World Food Programme was given to labourers in lieu of cash wages.

The project in Murree hills was closed on the completion of the first phase (1960-65) because Government of Pakistan (GOP) funds were not available; the project staff was reluctant to disburse World Food Programme (WFP) commodity assistance, and the labour was unwilling to accept wages in kind instead of cash.

The WAPDA project also tapered off with gradual reduction in budget. Available funds were spent on the salaries of staff and very little was left for afforestation, soil and water conservation works and other measures of improvement.

The Watershed Management programme in Hazara, however, continued from phase to phase. Due to its success, the programme was expanded and extended to Malakand in 1970. Since then both the programmes are running successfully. In total more than 300,000 acres of privately owned barren hill slopes have been brought under tree cover in Hazara and Malakand and by the 1998 this area is likely to have increased more than twofold.

Irrigated plantations in Punjab and Sindh:
The whole of Sindh and southern and central parts of Punjab have arid climate with rainfall less than 250 mm per annum. Because agriculture is not possible under this type of moisture regime development of irrigation facilities was given high priority after independence in 1947. Consequently, barrages and canals were constructed in Punjab and Sindh provinces which brought more than 50 million acres of land under irrigation.

Since Punjab and Sindh were not well endowed with natural forest resources, it was decided that 10% of the command areas would be set aside for raising trees with canal irrigation. Although decision was not implemented in letter and spirit, still the Punjab and Sindh Forest Departments succeeded in raising irrigated plantations over more than 260,000 acres.

Riverine forests in Punjab and Sindh:
The river Indus is flowing on its present course since time immemorial depositing heavy loads of silt brought from catchment areas in the Himalayas - Karakuram - Hindu Kush region in the north. Consequently, the bed of the river, in a wide belt, is higher than the surrounding areas on both sides. Slight rise in water level causes overflowing of banks. Flood protection embankments (bunds) have been constructed on both sides. At places these bunds are seven (7) miles apart enclosing vast areas in between which is inundated during the monsoon season. These conditions have favoured natural growth of Kikar/Babul (Acacia nilotica) supplemented by artificial means through simple techniques of broadcasting Acacia seed from a small boat at the time of receding of flood water. Beautiful plantations of Kikar have been raised on both sides of Indus over extensive areas in Sindh and Shisham plantations in Punjab.

Forestry Planning and Development Project:
The Forestry Planning and Development Project launched in 1985, was the first project of its kind which incorporated farm forestry training, research, extension and outreach as a necessary tool to disseminate forestry principles and technology for raising nurseries and planting trees to the private sector so that it could successfully use tree crops in a manner that suits its specific interests. The success of the project through mass motivation, raising nurseries through education and training, planting trees through incentives with full and willing participation of the farmers is encouraging and remarkable. Some 114 million seedlings have been raised in 4000 kissan nurseries, 91.8 mill' seedlings have survived covering 90,000 acres. Land development and soil conservation operations have been carried out on 17,000 acres. Short courses on raising nursery seedlings and planting trees have been held for the farmers as well as for lower cadres of forestry. But the most remarkable achievement is the commencement of specialized degree courses in social forestry at Pakistan Forest Institute, Peshawar where 196 graduates including women have been awarded B.Sc. and M.Sc. degrees in Social Forestry.

Another achievement is the creation of a non-Government Organization (NGO) Unit to take the programme to the private sector on a self sustainability basis in the years to come. So far, about 20 NGOs have been induced through the award of grants to increase tree growth and create awareness among school and college students. The most striking achievement of this project is the transfer of technology from the public to private sector for raising nurseries and planting trees. This hopefully will lead to privatization and commercialization of forestry. Thus some farmers will raise nurseries whereas others purchase saplings at prevailing market rates and carry out planting without any support from the Forest Department to meet their own needs and for sale to wood based industry.

2.3 INTENSIVE FOREST MANAGEMENT

Kaghan project:

Forestry in Pakistan has remained primitive for a long time. With increase in timber prices and rising demand of wood for construction and industrial purposes, it became necessary to intensify forest management and introduce the multiple use concept in forestry. For this purpose, a pilot project was started in Kaghan Valley in 1980 which involved:

- Modification of the management plan to incorporate the concept of multiple use and intensive forest management.
- Administrative units were reduced and the staff was increased to ensure better management and protection.
- Centralized nurseries were established for production of quality stock after collecting seed from elite mother trees.
- Concentrated mechanized felling were carried out in suitable areas with 100% restocking with quality planting stock and better protection.
- A road net work was established to open up the forests and facilitate management, protection and reduce timber wastage. 200 K.M of new roads were constructed and 150 K.M of the existing roads were improved, in addition to constructing bridges.
- A medium size Saw Mill was established to cater to the specific needs of Government departments like; POF Wah, Telephone Industries of Pakistan, Karachi Ship Yard.
- A field workshop was established to carry out repairs for efficient use of machinery.
- Labour training school was established to impart training to labour to handle heavy equipment.

The pilot project was continued in three phases of 5 years each

Siran valley project:
The Kaghan pilot project produced excellent results in all aspects of intensive forest management and multiple land use concept. The project was extended to Siran Valley aiming to implement concentrated felling, road construction, mechanized extraction, artificial restocking, training; and an expanded scope to include Social Forestry particular strengthening Multipurpose Forest Co-operative Societies, planting on private lands, and preservation of nature and natural resources at a total cost of Rs.237.884 million from 1991-92 to 1994-95. It is intended to prepare land use plans after conducting detailed inventories of 90 villages in the project area. Approximately 50 per cent of the land identified for tree plantation in the trial villages will be utilized for raising trees with fruit, fuel or fodder values.

A natural forest reserve will be established in and around Chor to conserve natural and protect flora and fauna in the bio-diversity rich moist temperate forests of Pakistan.

Forest co-operative societies:
Private forests in Mansehra district commonly known as "Guzara Forests" have been brought under intensive management by setting up Multipurpose Forest Co-operative Societies which are the present number of these cooperative is 33 in number and it is still increasing. Currently the societies have more than 3,000 members who control a total area of 128,000 acres from which some 27.979 million cubic feet of timber have been extracted. It is generally believed, and rightly so, that the rate of exploitation of trees by the Forest Co-operative Societies has been much faster than the rate of re-forestation with the result that forests are being denuded and the resource is being depleted rapidly.

2.4 INTEGRATED DEVELOPMENT

Kalam valley project:
Forestry is, no doubt, a major land use in the high mountains of Kalam and adjoining areas but it is not the only use. Other sectors of the local economy i.e. agriculture, livestock, range etc. are equally important because of their influence on and inter-action with forestry. Efforts to develop forestry in isolation from the allied sectors may be successful but not sustainable. The Kalam Project is the first attempt to integrate forestry practices with agriculture, livestock, management development of infrastructure, social welfare activities and judicious use of natural resources to attain ecological equilibrium.

The project has been implemented in four phases with emphasis on: raising of nurseries; planting of trees; construction of roads and bridges; harvesting of trees; training of staff; introduction of improved varieties of fruit & vegetables;

and training of women in fruit preservation and other rural development activities.

The project has been evaluated from time to time by local and foreign agencies. The success has been rated quite high on account of participation of the local community in the integrated development of resources. The model is now being replicated by extending the area of the on-going project and by starting similar projects in other areas.

Malakand social forestry project:
Malakand Social Forestry is based on the realization that all land suitable for forestry and range management in the mountains is privately owned either individually or jointly by the village community. The wasteland resources are used by all inhabitants regardless of their ownership. Any meaningful improvement in the forestry situation can only be brought about by active participation of the local people. The Malakand project is a blend of traditional forestry involving raising of nurseries and planting of trees with social forestry involving community organization, range land improvement, extension and out-reach.

After initial success of the project over a limited area in Malakand agency during the first of 5 years from July 1987 to June 1992, a follow-up project has been started with an expanded scope and extended jurisdiction. The new much bigger project of Rs.411.880 million has been approved for July 1992 to June 1997 and covers the whole of Malakand agency and all of Dir district. The new project hinges on participation of communities in planning and implementation of activities. The project has four main which include; improvement of vegetation on hillsides, farm forestry, women in forestry, training and environmental awareness raising.

AKRSP experience:
Agha Khan Rural Support Programme (AKRSP) is a unique experiment started in Gilgit and Baltistan Districts (Northern Area) and Chitral District (NWFP). So far, 1035 projects have been initiated at an estimated cost of Rs.178.9 million. In the process, 21357 ha. of land have been brought under canal irrigation where 1.881 million fruit trees and 7.891 million forest trees have been planted to provide fruit, fuel and fodder through the involvement of 1343 village organizations including 390 Women's organizations.

One of the principal objectives of this programme is to develop institutional and technical models for sustained development in the remote and inaccessible areas of Pakistan. This objective is achieved by persuading small farmers to organize themselves into broad based multipurpose Village Organization (VOS). All development programmes are conceived, formulated, appraised and implemented through a series of interactive dialogues between villagers and AKRSP professional staff. The success of the programme lies in the

involvement of the people at all stages of formulation and implementation of development activities.

2.5 INTRODUCTION OF SPECIES THROUGH ADAPTIVE RESEARCH

Besides programmes for reintroduction of mangrove forests, research and establishment of Paulownia, research into water requirements of various drought resistant species and development of sericulture, the planting of poplars and eucalypts have received major attention. The following describes some experiences regarding the latter two.

Poplar planting in NWFP:
Planting of hybrid poplar (Populus eu-americana) in Peshawar and Mardan Valley got a boost in 1971 for three reasons. With the loss of East Pakistan, the supply of match boxes in West Pakistan was cut off over night. Entrepreneurs were in search of suitable tree species for setting up a match Industry in West Pakistan. The Pakistan Forest Institute Peshawar through adaptive research successfully introduced clones of hybrid and deltoids poplars from Italy, U.S.A. and Turkey which did well and showed promising results in Peshawar and adjoining areas. The farmers were looking for suitable species for planting on ownership boundaries, water channels, and nooks and corners of cultivated fields to give them extra income through sale of wood. Poplar was well sailed for all these needs and was, therefore, readily adopted by the farmers. Billions of trees have planted between 1970 and 1980. The demand for poplar wood increased further when millions of Afghan Refugees took shelter in Peshawar and adjoining areas. Except for fast growing poplars in NWFP, the wood based industries of sports goods, crates, matches and sheltering for building construction would have faced a wood crisis.

Poplar trees grown on private farmlands in Peshawar and Mardan Valleys are producing enough wood to meet all local needs for industrial and domestic consumption in NWFP in addition to an export of around 50 truck loads to Sialkot and other industrial towns of Punjab and Sindh Provinces on a daily basis. The research staff of Pakistan Forest Institute, Peshawar and territorial staff of NWFP Forest Department played a remarkable role in the propagation of poplars on farmlands which is a success story of un-parallelled nature

Eucalyptus planting on stress sites:
Pakistan has a dry climate with 60% of its areas receiving less than 250 mm of rain per annum. An additional 25% is semi arid where rainfall ranges between 250 and 750 mm per annum. Only 15% of the area, mostly located in the active monsoon area of the Himalayas, receives adequate rainfall to qualify as a semi humid temperate climate.

In order to provide food for a staggering population of teeming millions, development of irrigation facilities was a pre-requisite which has given rise to twin problems of salinity and waterlogging over extensive areas in Punjab and Sindh. Identification of suitable trees species for dry, saline and water logged sites remained a subject of research in Pakistan Forest Institute. It succeeded in introducing about a dozen species of Eucalyptus from Australia but the species which has done well under difficult conditions is Eucalyptus camaldulensis. It has been extensively planted on stress sites in all provinces particularly Punjab and Sindh. Planting of Eucalyptus has restored greenery to dry sites and is helping to reclaim waterlogged and saline sites by pumping excess water through the evapo-transpiration process.

2.6 EDUCATION AND TRAINING

Forestry Education and training is the responsibility of Pakistan Forest Institute which is a premier organization in the country and is the only one of its kind in Pakistan. It provides trained manpower to Provincial Forest Departments, Azad Kashmir and Northern Areas and autonomous and semi autonomous organizations at the level of professional and sub-professional staff.

The institute came into being in 1947. Since then it regularly passes out one batch of M.Sc. and one batch of B.Sc Forestry graduates every year who are provided jobs in the Provincial Forest Departments. The institute is a successor to the Indian Forestry Institute, Dehra Dune from where muslim members of the staff migrated to Pakistan and set up the institute in 1947. Initially the institute was awarding degree in general Forestry and so far 1484 officers have been trained. Moreover since 1985, specialized a degree courses have been started in the following areas.

- Logging and Forest Products Engineering.
- Watershed Management.
- Farm Forestry.

A fourth specialized course in Range Management is under active consideration and may be started from next year with the financial and technical support of FAO/UNDP.

3 OPPORTUNITIES AND CONSTRAINTS

3.1 OPPORTUNITIES

The Forestry sector is largely untapped. This is particularly true with respect to farm forestry, social forestry, industrial forestry and amenity planting which can be expanded in horizontal and vertically directions through forestry extension approaches. This calls for:

- development of a separate extension service by posting fully trained and adequately equipped staff to promote tree culture in the country;
- intensification of management on public and private lands to realize full potential of site quality;
- creation of NGO's to promote tree culture and spread environmental awareness.

Although a large number of professional foresters are engaged in forestry extension on public and private lands, they are not trained in the art of forestry extension which requires specific techniques, and different temperaments, and working relation between the forest dwellers, the right holders, the farmers and the field foresters. The present relationship is far from being satisfactory. It can be improved by creating a cadre of extension specialists and outreach experts in the Provincial Forest Departments. The concept of an Integrated Social Forestry programme has created a new set of challenges and opportunities for professional foresters to focus on PEOPLE instead of TREES and to consider the present needs of farmers as well as long term future benefits to the community.

Due to varied climate and changing topography, Pakistan offers great potential for increase in farm forestry and dry afforestation in Punjab and Watershed management through social forestry in NWFP. The real scope and vast untapped potential of forestry lies not in the 4.5 million ha. of state land but in the 20 million ha. of irrigated farmlands in Punjab and Sindh and 30 million ha. of mountain slopes in Hazara, Malakand, Murree hills, Azad Kashmir, Northern Areas, border along Afghanistan and Suleiman range and Ziarat Valley in Baluchistan.

Edaphic, biotic and climatic factors are extremely favourable in the Himalaya, Karakuram and Hindu Kush region for tree culture. The importance of trees to sustain water and maintain its quality, and conserve soil in the catchment area of Mangla and Tarbela needs no emphasis. Several Watershed Management projects are being implemented in the region but so far they have covered only a fraction of the area (120,000 ha. in NWFP, 20,000 ha. in Punjab and 10,000 ha. in Azad Kashmir). The area covered is hardly 5% of the total area requiring bio-cultural treatment.

The Indus basin in Punjab and river delta in Sindh have fertile soils and adequate irrigation facilities but still they have an in adequate number of trees on irrigated farmlands as compared to NWFP, Azad Kashmir and Northern Areas. The survey conducted on 3594 randomly selected sample plots on farmlands has shown that Sindh and Punjab Provinces despite being better placed in terms of agricultural land, fertile soils and adequate irrigation facilities have fewer trees per ha. There is a lot of potential for increasing tree growth in these provinces. Similarly, NWFP and Azad Kashmir have a lot of potential for tree growth due to their climate and topography. The results of the survey indicate that the potential for tree growth on farmlands has not been fully tapped.

Through another survey conducted by the Household Energy Supply Strategy (HESS Project) all trees tallied on farmlands and converted into fully stocked area at the rate of 800-1200 trees per hectare, works out to 466,000 ha. or 2.3% of the total farmland in Pakistan.

Considering the land and water resources, low level of farm income, and the higher prices of timber and fuelwood, the opportunities to increase tree growth on non forest areas, to generate interest, to train staff and motivate farmers are tremendous and the limit is the sky.

3.2 CONSTRAINTS

Traditional forestry and social forestry are two separate and distinct branches of forestry requiring different specialties, approaches, aptitudes, knowledge, extension and outreach. In traditional forestry a forester is dealing with state property, utilizing public funds taking important decisions himself and measuring success on the basis of trees planted and survival achieved. In social forestry, the ownership is private, decisions are taken by the farmer himself involving risks and benefits. The forester is acting as teacher, guide, helper and the agent of change. His success is measured by the number of persons motivated and trained in the art of tree culture. The difference in job requirements between social and traditional foresters is illustrated in figure 1.

The present cadre of foresters in the Provincial Forest Departments is by and large educated and trained for traditional protective functions through the application of law, prosecution of offenders and observance of rules and regulations. The system is rigid and inflexible and the operator of the system is not tuned to implement a social forestry programme.

Forestry in Pakistan is being developed through a project approach. Life in projects is difficult and the job is arduous and challenging. With no extra facilities or visible additional perks, the best talent is not attracted to project posts. Job requirements are different and an average traditional forester does

not fit in that position. If he is put in charge to guide farmers it would amount to a blind leading the blind. It would be like reaching a place without knowing the shortest route and the most efficient mode of transport. At the end of the day, the destination may be found but with higher cost in terms of time, money and effort. It is like playing a match without adequate knowledge of rules of the game. The match may be won but not without injuries and bruises.

Figure 1. Job Requirements in Social Forestry

SOCIAL FORESTER	<< >>	TRADITIONAL FORESTER
M.Sc. Social Forestry	Degree	M.Sc. General Forestry
Sociology		Management
Anthropology	Courses	Silviculture
Extension		Protection
Agroforestry Systems		Utilization
Teaching		Forest Management
Guiding	Responsibilities	Public Administration
Changing		Forest Development
Humane	Attitude	Bureaucratic
Change	Result	Status quo
People	Focus	Trees
Individual	Benefit	Community
Unlimited	Scope	Limited
Satisfaction (spiritual)	Reward	Salary (material)

Provincial Forest Departments, Azad Kashmir and Northern Area have ambitious programmes of social forestry but none has a separate service or wing of social forestry except Punjab which has a circle headed by a Conservator of Forests stationed at Lahore. But the staff is not trained in the art and science of social forestry. They stay on the job for a short time and are transferred back to normal territorial jobs. This neither solves the problem nor serves the purpose.

The project approach has other shortcomings as well. When a project is formulated for the first time, due to inadequate knowledge and expertise, and the newness of the field, inappropriate organizational structure, staff positions and strength are provided in the PC-I. Once the project is approved it is difficult if not impossible to incorporate change or rectify the errors or

omissions due to inflexible rules and regulations. A few example will illustrate this point:

In the Forestry Planning and Development Project, one (1) post of Project Director, eight (8) D.F.O's and fifteen (15) Forest Rangers were provided in PC-I for Punjab against a provision of three (3) D.F.Os and three (3) Forest Ranger for NWFP. It was subsequently realized that the staff for NWFP was grossly inadequate. Keeping in view the scope of work the farmers' response and interest shown in tree planting. Repeated efforts were made to increase the staff for NWFP but without any success.

The Forestry Planning and Development Project envisages specialized courses leading to award of M.Sc. and B.Sc in Social Forestry. In order to strengthen staff in P.F.I. one (1) post of Additional Director General and three (3) posts of Associate Professors were provided in the PC-I but since nomenclature of the new posts were not included in the Recruitment Rules for gazetted officers of P.F.I. they were not sanctioned. Efforts to change the designation and nomenclatures of these posts to bring them at par with the service rules was unsuccessful even after protracted correspondence.

The Forestry Planning and Development Project envisages inter-active research between agricultural crops and forest trees. This required association of agricultural graduates since foresters have little knowledge of cereal and cash crops. But since the posts of agricultural assistant and Range Specialists were not provided in PC-I due to an oversight, they could not be posted in the project although the need was badly felt.

Another project envisaging strengthening of forestry education at P.F.I. was sanctioned but when implementation started the posts of teaching staff were not sanctioned in spite of continuous lobbying for the full five years of the project.

In watershed management projects in Hazara and Malakand, similar anomalies of inappropriate structure and inadequate staff exist despite their realization during the last 15 years. Mangla/Tarbela Watershed Project in Hazara and Malakand watershed project in Dir and Swat have more or less identical targets but have altogether different structure and strength of staff. The same holds true for the Kaghan Intensive Forest Management Project and Siran Intensive Forest Management Project.

This is partly due to the fact that adequate thought was not given at the time of preparation of the project and lessons have not been learnt from past mistakes. Primarily it is due to the fact that the project has to be cleared at so many stages and several cuts are imposed in the process, so the project is sided when it is finally approved.

In all development projects, it is a rule rather than an exception that the entire staff is provided through the development budget and they stay as temporary project staff even though the project is continued for 10, 15, or 20 years. On conclusion of the project, the staff may or may not be transferred to the normal budget and if they are not, the activity which has been continued for a long time is terminated.

The provision of staff for projects of social forestry through the developmental budget has other disadvantages as well. It is true without exception or an iota of doubt that funds are not provided in the ADP according to the phasing given in the PC-I when the budget is passed and printed. Across the board cut of 10-20% is imposed on the development budget which keeps on increasing with the occurrence of every disaster like floods, earthquake, political crisis within country or outside, price hike of gasoline in the international market and other happenings of similar nature. The staff has to be paid and no cut is possible in their salaries. The result is that after payment of salaries, office rent, POL, contingencies etc. nothing is left for works, extension and outreach activities. The projects continues but their benefits and effectiveness are reduced.

3.3 CONCLUSIONS

In conclusion, it can be stated that forestry extension has a great scope and potential for improvement in quality and outreach. Adequate funds through approved and pipe line projects for social forestry are available. A little improvement in training, change in organizational structure and a little more emphasis on specialization rather than generalization can improve the effectiveness of the forest service a great deal. The staff has only to learn and follow the outreach strategy of working with the people, involving them to help each other and themselves to increase their income through use of appropriate farm forestry activities and practices. The forester has to work as a catalyst. Their real contribution and accomplishment will be measured on the basis of private individuals who are motivated to learn, share new ideas and take steps to further their interest and enhance their income through tree culture.

5. FORESTRY EXTENSION IN THE MASTER PLAN FRAMEWORK

Dr. Muhammad Ashraf

1 NEED FOR FORESTRY EXTENSION

There are two compelling reasons to have a strong and effective forestry extension. First, a much greater peoples' participation will be needed in future. The Forestry Sector Master Plan (FSMP) proposes to plant trees on 3.6 million hectares of private farmlands and watersheds against less than 1 million hectares of public lands. For the first time, area under private forests and trees is expected to increase from the present 14 percent to almost equal to the area of public forests. People will not only have to esteem and protect trees and forests; they will have to grow them. That will need a massive educational and extension effort.

Second, the old system of seeking public support through legislation has to be replaced. Law alone is no longer effective. Peoples' participation will have to be secured through persuasion and education.

2 PROPOSED EXTENSION MODEL

The FSMP envisages quite a different form of extension service model than the existing one. Some essential characteristics are discussed below.

2.1 REORIENTATION OF ATTITUDES

The future extension service would be friendly, least officious and non intrusive. The basic philosophy would be to arouse peoples' interest in forestry and initiate their participation rather than to control their actions. Least authoritative, the extension organizations would motivate people and render technical advice only. All actions like rasing nursery stock and use of inputs will be controlled by the people themselves. As commanding behaviour antagonizes people, the extension personnel would be devoid of unnecessary bureaucratic ornamentation an powers. The government departments will have to change their attitudes to accommodate these modern day extension needs.

2.2 MULTIPLE APPROACHES

The strategy of educating people on the importance of trees and forests alone will not work. It has not worked before. Forests and trees mean different things to different people. A farmer would grow trees primarily to earn more money, a watershed inhabitant would protect forests to get more fuelwood and fodder, an environment conscious citizen would like to preserve forests for better living. Each has to be reached differently. The future extension service model will therefore have multiple approaches and will be target oriented. It will be linked with the local culture.

2.3 STRUCTURE AND STAFFING

The organizational structure would be a mixture of public representatives and public servants. This would provide a wider forum and physical check to the dominating behaviour of the officials.

The structure of field organizations will depend on specific needs of each province and area. The future extension set up at the central base level will need adequate, varied and qualified specialities. To cater for the needs of different groups, expertise in economies, marketing, communication and sociology will be needed in addition to agronomy, crop husbandry, forestry, range and livestock. Management of trees and forests, marketing of wood and other products and crops, protection against diseases and pests and similar other aspects will become important concerns for extension. The staff will have to be properly trained for that. Training of social foresters should be opened to qualified universities. Advisory and research component will have to be greatly strengthened. Well staffed, equipped and organized non-governmental organizations (NGOs) will be the ultimate ideal extension platforms.

2.4 DIRECT BENEFIT APPEAL

The appeal of direct personal economic and other benefits would be an integral part of the future education and extension programmes. Advocating of the doctrine of national welfare will have a limited response in a developing country. Avenues of direct individual benefits related to forestry will have to be searched and drawn attention to. People involved in forestry, watershed and range development will have to be provided with the same incentives and privileges as are provided for other economic activities in the area. It should be ensured that local people share the benefits resulting from their participation. The basic strategy will be to develop natural and human resources together.

2.5 ROLE OF WOMEN

Women will be effectively involved in all future forestry extension. They will play important roles as field motivators and as specialists.

2.6 EVALUATION AND RESEARCH

Extension units will have an in-built arrangement for evaluation of their performance and will be willing to make amendments. There will be close linkage and communication between the existing models like the US-AID Forestry Planning and Development Project, the Malakand Social Forestry Project in North West Frontier Province, Suketar Watershed Project in Azad Jammu and Kashmir and the Farm Forestry Project in the Punjab. This will help to gain form experiences and not repeat mistakes and weaknesses.

Much of the success of extension work will depend upon the strength of research. A strong information and research data base will be essential. Pakistan Forest Institute will be main centre of research for forestry extension. Local issues and problems will be researched at the provincial research station.

3 STRENGTHENING EXTENSION CAPABILITIES

The FSMP proposals to strengthen the extension capabilities are as follows:

3.1 GOVERNMENT FORESTRY DEPARTMENTS

Azad Jammu and Kashmir:
There is no regular extension section. Some forestry staff is seconded to on-going development projects to carry out extension duties. The arrangement in temporary and weak.

The FSMP has proposed the creation of a Forestry and Range Extension Cell under a Conservator of Forests.

Baluchistan:
There is only one Public Relations Officer, a post created under the US-AID, Forestry Planning and Development Project. Obviously this is inadequate.

The FSMP has suggested that the existing office of the Project Director, Farm Energy Forestry Project should be made responsible for providing extension services to farmers, livestock owners and local people in juniper forest tract. This office should be headed by a Conservator of Forests.

Northern Areas:
There is no formal arrangement for forestry extension in the Forest Department.

The FSMP proposes to create a new Forestry Extension Division to begin with. It will be headed by a Divisional Forest Officer.

North West Frontier Province:
The Conservator of Forests, Social Forestry Project, Malakand is responsible for extension work in the project area. Some extension services are rendered under other projects also. There is no formal extension arrangement in the Forest Department itself.

The FSMP proposed that a separate independent extension wing should be created for the province and a Chief Conservator of Forests should be placed in charge of it. Peshawar, Hazara, Malakand and Kohat Forest Divisions should be placed under this wing in order to facilitate experimentation on extension work and to develop suitable extension models for the rest of the province.

Punjab:
Conservator of Forests, Extension Circle at Lahore and Conservator of Forests, US-AID at Rawalpindi are taking care of extension work at present. Given the magnitude of farm forestry programme envisaged for the Punjab, the FSMP proposes to create a full fledged Farm Forestry and Extension Wing. It will be head by a Chief Conservator of Forests. The offices of Conservators of Forests Extension and US-AID Circles will be attached with this wing. Field staff will comprise 4 Conservators of Forests, Farm Forestry and 16 District Farm Forestry Officers.

Sindh:
Some extension work is done by Conservator of Forests, Social Forestry Circle, Karachi, It is inadequate.

The FSMP has proposed that this office should be expanded to include a strong extension section and renamed and Social Forestry and Extension Cell. Each civil district with potential for farm forestry should have a District Farm Forestry Officer.

3.2 NON-GOVERNMENTAL ORGANIZATIONS

Forestry extension receives little support form non-governmental organization. Some which do assist, like the Aga Khan Rural Support Programme, have

emerged recently. The FSMP considers that NGOs could be the link between communities and the Forest Departments. It recommends encouraging formation of new environmental and Forestry NGOs and assisting social NGOs to include forestry and its extension in their programmes. Forest Departments would strengthen their generally weak technical capabilities.

3.3 FUNCTIONS OF EXTENSION UNITS

The general responsibilities of extension units will include:

- Determining peoples' concerns and obtaining consensus on actions needed;
- Initiating target oriented education and extension programmes addressed to landowners, tenants, graziers, rural unemployed, community groups, general public and wood-using industries;
- Arranging workshops, talks, forest visits and meetings of the people with foresters and other experts;
- Encouraging formation of environmental and forestry NGOs and providing technical assistance to them; liaisoning with the existing NGOs and other government and semi-government organizations;
- Developing a strong technical and marketing information base.
- Training and educating extension personnel;
- Suggesting extension policies, strategies and legislation; and
- Monitoring and evaluating extension methods and techniques.

2. MAJOR FOREST POLICY THRUSTS

One constructive way to plan for the future is to take stock of the current status of forestry extension in NWFP and from there on move toward shaping our future based on projected requirements. Although this could be done in many different ways, one of which is to analyze and compare forestry extension approaches adopted by various projects, I find it useful and fruitful to take a different and broader view of the forestry extension situation in NWFP so as to relate forest policy and forestry extension. The situation analysis presented here is, therefore, in the form of major policy thrusts, which could be categorized into the following:

- resource protection and conservation;
- promoting efficient and equitable resource use;
- resource improvement and development;
- research and demonstration;
- strategic planning, execution, monitoring and evaluation;
- institutional development.

2.1. RESOURCE PROTECTION AND CONSERVATION

Resource protection and conservation for watershed, amenity, ecological and environmental reasons is an important forest policy objective. But protecting and conserving our existing forest resources and other ecosystems against the ever-increasing human and livestock populations, urbanization, rising standards of living and attendant expectations is a formidable task indeed. The prevailing attitudes of people in general toward quick liquidation of forests is a direct derivative of the resource being DISPERSED, REMOTE, OPEN, and VALUABLE ("Green Gold"). Such being the case, measures for ensuring resource protection and conservation have to be based more on promoting "Social Responsibility" and less on adopting "Punitive Measures", the latter being expensive, ineffective and hence unsustainable given the above characteristics of our resources. The emphasis in forest policy therefore has to be shifted from exclusion through coercion to acceptance and conformity through better public relations and inculcating responsible behaviour with respect to resource protection and conservation.

2.2 PROMOTING EFFICIENT AND EQUITABLE RESOURCE USE

Wise and just use could relieve a substantial part of the increased stress to which our forestry and allied resources are subjected. Given the present state of technology in wood use for fuel, construction, industries etc., and the high degree of asymmetry and skewness in forest land ownership and access, improvements on both counts -efficiency and equity- are possible. Recognizing this efficient and more just resource use is being promoted in the Provincial Forest Policy.

2.3 RESOURCE IMPROVEMENT AND DEVELOPMENT

But no matter how well do we protect, use and manage our forests, a simple statistical fact is: it is not going to be enough. The need for resource improvement and development is an imperative that is inescapable. Large-scale afforestation and improvement efforts have to be undertaken with public and private initiatives to expand the resource base and thus satisfy the ever growing requirements of timber, fuelwood, fodder and other products and environmental needs.

2.4 RESEARCH AND DEMONSTRATION

Although both basic and applied research is needed in forestry, the former is usually done by academic institutions such as the Pakistan Forest Institute. The departmental research thrust is therefore on a problem-solving oriented,

adaptive research such as the one done by the ILO-assisted project, " Technology and Training in Afforestation and Soil Conservation", and various Harvesting Technique Improvement measures.

2.5 STRATEGIC PLANNING, EXECUTION, MONITORING AND EVALUATION

The successful translation of policy declarations into workable programmes, projects and plans, and their efficient execution, monitoring and evaluation are pre-requisites for optimizing achievement of organizational objectives. These also provide a framework for managerial decisions and serve as basis for control and as an input for future decision making. That is why in the Provincial Forest Policy, strategic planning, execution, monitoring and evaluation have been given due priority.

2.6 INSTITUTIONAL DEVELOPMENT

To operationalize the policy statements made above, an adept institutional mechanism in terms of organizational structure and culture is needed for clarity of purpose and strategy, efficiency, and coordination between the interdependent parts of the organization to ensure organizational effectiveness. A proposal for re-organizing the NWFP Forest Department so as to give it the structure and therefore nurture an organizational culture that is conducive for peoples' participation has been put forth before the provincial government.

3. DISCUSSION ISSUES

A number of issues need to be discussed so as to facilitate the adoption of effective forestry extension in the province. The purpose in identifying these issues is twofold: to serve as flash lights or alert points and to sharpen our understanding of these issues for better tackling.

For convenience these issues have been lumped together into three broad categories:

- issues for policy makers;
- issues for programme planners;
- issues for field project managers.

3.1 ISSUES FOR POLICY MAKERS

Policies, legislation and regulations:
What kind of policies, type of legislation, and set of regulations do we need so that the forestry extension strategy trajectory or flight plan follows the course envisaged for it?

Institutional and organizational issues:
Based on available evidence, an organizational structure for the NWFP Forest Department has been proposed to the government to further the cause of social forestry in the province. Similarly different institutional mechanisms at the community level are being tried toward the same end. However, we need to be open and learn to work in an evolving process mode. Therefore, organizational structure and institutional structure have to be periodically reviewed and evaluated for needed changes.

Investments:
Are the present investment trends in forestry extension of time horizons, of magnitudes, from sources, and directed toward activities to build the needed extension capacity?

External assistance:
Where is the external assistance -technical, financial, intellectual- going to? Is it better utilized for producing direct results or for strengthening local capacities for initiating, managing and sustaining activities with respect to income generation, resource management, productive physical infrastructure creation, and enhancing quality of life?

3.2 ISSUES FOR PROGRAMME PLANNERS

Project and programme planning:
How should the social forestry and forestry extension projects and programmes be planned for the various physical, biological, ecological, land use, land tenure, and socio-economic situations that are encountered in the province? Could we or should we follow and replicate the Malakand Social Forestry approach for institutionalizing social forestry through a three phased strategy comprising of a Trial Phase, Development Phase and Expansion Phase, each with a 5-year time horizon.

Monitoring and evaluation:
What should be monitored and evaluated, at what stage, how, with what frequency, and how to incorporate monitoring and evaluation results into forestry extension projects and programmes? How to deal with qualitative variables that defy measurement such as social and attitudinal variables? All these questions require discussion, investigation and elaboration.

Coordination and collaboration:
Now that the informal networking of forestry extension projects in Pakistan and NWFP has taken a step further and formalized in the form of holding the present workshop, what next is needed to further build on the on-going coordination and collaboration? Shall we continue with the same approach or give it a different direction for developing and re-enforcing horizontal and vertical linkages?

Training and education:
Most of the social forestry projects in NWFP are inter-disciplinary and therefore involve many technical skills such as forestry, agriculture, horticulture, livestock husbandry etc. So shall we adopt the Integrated Extension Unit approach to do the job across the board or try something different? How to inform the policy makers about forestry extension efforts? Through workshops like this? And how to increase the capabilities and skills of project planners and project managers? What kind of training and education will be needed for these? What about the adequacy and relevance of trainers, training institutions and training materials?

Research and demonstration:
How to identify relevant research needs, and assign priorities and responsibilities for implementation? How much of physical and biological research and surveys vis-a-vis socio-economic research and surveys? In the same context, how much time and money be spent on issue analysis?

3.3 ISSUES FOR FIELD PROJECT MANAGERS

Project and programme implementation:
How should forestry extension be implemented? Shall we integrate forestry extension and activity execution in promotional forestry, but separate extension and protection in conservation forestry? In a nutshell how to operationalize the extension strategy?

Awareness raising:
Are the present public awareness campaigns of forestry extension adequate, relevant, realistic and appropriate? How to link and weigh awareness raising and attitude changes?

Peoples' participation:
The present approach of village development committees is a "Representational Model". Shall we equate this representation with participation? Do village representatives on these committees represent all interest groups? Or shall we

go for a much larger participation in the form of village assemblies to qualify it for "Participation Model"? And then the basic questions of participation in what, where, how and at what time?

Field Incentives:
How to motivate field workers and village communities? What incentives should be given, in what form, how much, when etc. so that the incentive achieves what it is intended for and does not promote dependence of village communities on the project?

Field coordination:
How to coordinate various project activities in the field so that these contribute to the stated objectives individually and in combination rather than countering each other?

My intention in presenting these forestry extension related issues has been analytical rather than historical or narrative. By so doing I tried to avoid giving individualistic definite answers (of which there are not many!) and thus hope to invite discussion and thus eventually some form of consensus.

4. CONCLUDING REMARKS

While I have posed too many questions and raised too many points to ponder on, I am glad to share with you that the NWFP Forest Department has conceived a comprehensive 20-years Forest Resource Conservation and Development Programme under the banner of **"FOCUS GREEN SARHAD" (FGS)**. The programme runs across the board and involves both private (farming communities, business community, religious institutions, NGOs and public representatives) and public sectors (government departments, academic institutions, uniformed forces) to further the cause of forestry and allied resources in the province through developing extension approaches for the various actors and factors involved.

For any forest development programme it is important to remember that experience in general rural development has shown that neither the "top-down" nor the "bottom-up" strategy of development is as promising as the "Assisted Self-Reliance" approach that transcends both approaches. The underlying principle of Assisted Self-Reliance is working with, rather than for the people. This strategy, which is being adapted and adopted for FGS, "implies no fixed design but a host of elements to be combined in appropriate sequences and amounts". Just to give an idea, a quick run through of the elements of the strategy is given below:

Local organizations:
Creation, strengthening and involvement of local organizations that establish both horizontal and vertical linkages should be pursued.

Multiple channels for action:
Rather than rely only on just one form of institutional linkage -whether bureaucratic, co-operative, NGO, etc.- it is more conducive for resource conservation and development to involve multiple channels for action thereby fostering competition and complementarity between the channels.

Blending "indigenous" and "modern" technologies:
Many of the traditional technologies and resource management systems (as exemplified by various grazing systems in Dir Kohistan) are not static and in fact represent an empirical adaptation to prevailing conditions and thus could be upgraded with some outside inputs for a better fit.

Sustainable resource mobilization:
While some external assistance is likely to be needed and appropriate , sole dependence on outside sources is unsustainable and outright risky. Local resource mobilization mechanisms therefore have to be designed.

Use of paraprofessionals:
Paraprofessionals from within the communities have to be trained so that the services are available within the villages at the programme conclusion.

Organizational re-orientation:
A full-fledged organizational re-orientation is a long and time taking phenomenon and therefore has to come in increments rather than in an instant.

Evolving process approach:
Extension is a process that evolves over time and the main building blocks of which are human and social capabilities and not material or mechanical. Even the latter capabilities come into being and use only through peoples' ideas and motivation. The key to the "safe" therefore lies in human ingenuity, which it is hoped will be available in plenty in the discussions!

International Experiences in Forestry Extension

6. COMMUNITY FORESTRY: PRINCIPLES AND PRACTICES FOR EMPOWERING AND MOBILIZING PEOPLE FOR RESOURCE MANAGEMENT

Dr. Narayan Kaji Shrestha
Jane Gronow

1 INTRODUCTION

This paper describes some principles and practices in community forestry, based on the experiences in Nepal. It starts with an analysis of social and political history of change in forestry in order to understand the evolution of the current institutional structure and its possible future shape. It is realized that the forestry sector in Nepal has come to a critical juncture where it can go any direction from centralized bureaucratic or feudal control to decentralized consensual management by local users. It is acknowledged that the changing role of forestry in development of Nepal is result and impact of changing international development policies which seem to be precarious and very vulnerable against poor, women and ethnic groups living in the remote hills.

2 BRIEF HISTORICAL BACKGROUND

Not much study is done about hunter-gatherer groups in Nepal, but customs of Chepang, Raute, Kusunda, Tharu, Dhimal, etc. indicate that such people existed and still exist in Nepal. In medieval times when forest resources were abundant these people moved around and also practised slash and burn agriculture. However these indigenous groups were gradually displaced by organized Tibeto-Burman and Indo-Aryan immigrants. Forest resources during this period were used for gathering of fodder, firewood, timber, medicinal herbs, tuber, animal bedding, etc. Because of the gradual population pressure, clearing of the forest area for agriculture purposes was also practised, and tenurial rights over the land and an informal system of forest use evolved among the local groups. The leaders of the groups even started their own principalities, fiefdoms, and kingdoms depending upon organizational power and strength.

In 1768, the process of unification of Nepali fiefdoms was started by the Shad dynasty of Gorkha and a new nation, Nepal, was born. As the Gorkha dynasty started taking shape and expanded, it had to be very careful with the expanding East India Company. For this reason, the Terai forests were maintained as a physical barrier against possible invasion from the South (Regmi, 1984). Also

forest resources were distributed as kipat, birta, jagir etc. to secure local landlords' loyalty toward new nation, to maintain their control and exploitative authorities over the mass, and to pay for their services to the new government. As the state bureaucracy started growing, the state started asserting ownership over natural resources like forest and minerals, and transferred ownership to individuals and institutions as privileges. However, village people had free access to forests for fulfilling their daily forest product needs. During the Rana hegemony (1846-1950) the government used forest resources mainly for exploitation and conversion into agricultural land. A number of rules to regulate access to forests and removal of forest products (Mahat et al., 1986) mainly for sale to British India were drawn up. Moreover a forest office was established in Kathmandu, along with a forest inspection office with a number of check posts to regulate the sale of forest products and the hunting of game (Bajracharya, 1983). The forests of the Terai were recognized as valuable source for timber and railway sleepers to be exported in India, and advice to regulate their extraction was sought from British Foresters. Thus, forest product extraction from the Terai was dominated by the Indian demand. It became a big source of illegal income through timber export and of creation of birta land by clearing the forests. Thus all those in power, had vested interest to exploit and clear as much forest as they could.

A forest service was created in 1942 along in the lines of the Indian Forest Service and its officials were trained at the Imperial Forestry School, Dehradun. The department had three regional and 12 divisional forest offices. Their main job was to conduct forest exploitation according to a series of working plans prepared following patterns established in British India. The forest service was shaped in the colonial mould but very much understaffed. Forests in the hills remained under control of landlords, local fiefs and cronies of the Ranas. Gradually, they started to transfer tenurial authorities in their own name.

The democratic set up established after 1951, recognized the importance of forests in the national economy and development, and decided to transfer privately owned forests such as birta, jagir to the state. It had become imperative to repeal power of dominant land-owning gentries over forestry resources which were being used for exploitation and control of the mass. For this, "Private Forests Nationalization Act 1957" was introduced. The Act could however not be implemented properly, and powerful elites managed to keep the forest area under their control and use it according to their wishes. Since the forestry officials could not assert their authority, the forests saw the 'tragedy of commons' and became a free resource for all. Even some people destroyed forest and trees on their private land to save them from nationalization. People were kept in dark about legislative provision so that only bureaucracy and elites could use it for their own benefits. Forest resources became a source of income for bureaucrats and politicians.

One former old forest guard told during one of the orientation workshops: "Now you people are asking me to change and become people-oriented, how can I believe you? When I was working as a forest guard in the Terai, Conservators and other forest officials used to visit and ask for thousands of rupees, goat or deer sukuti (dried meat), even sometime girls. Where did I get them? I had to exploit the forest to fulfil their demands. How can I believe that they have all become benevolent now? I know if I do not fulfil their demands and question them I will either lose my job or I will be in trouble somehow" (Pers. Comm.) This situation has not changed significantly until now.

A Forest Act (1961) was formulated with a view of reversing the effect of nationalization and soliciting support of locally sponsored organizations like village panchayats and district panchayats for protection and creation of forests. This act made provisions of national forests (degraded natural forests), private forests, lease forests and religious forests. It was, in fact, a ploy to hand-over forest resources back into the hands of those people from whom authorities were taken away in 1957. Because by then most of those powerful village elites were enjoying power in different level of panchayats. Inspite of lack of provisions for the hand-over to local organizations, wherever forestry officials had not reached, the panchayat leaders decided to protect forests within their panchayat boundaries, which they had been doing anyhow (Gilmour et al., 1991). The Forest Protection Act (1967) laid down guidelines for taking sever punitive action for forest offenses, which strengthened the policing role of the Department of Forests and effectively initiated a process of alienation of local people from utilization and management of the forest resources.

A government policy of involving local institutions in the protection and utilization of forests was proposed in the National Forestry Plan of 1976: "A public co operation and participation programme will be carried out to involve the public in the use and management of local forests" (Anonymous, 1976). However, wider powers were also received by the District Forest Officers under the plan to formalize the transfer of nationalized deforested land to panchayats for the creation and protection of forests. The then government and donors perceived that over-population and forest nationalization were hastening forest destruction causing environmental degradation and a short-fall in the supply of forest products. The proposed panacea was to reverse the Nationalization policy and conduct a programme of "motivation and education activities to promote people's interest and participation in community forestry activities" (Manandhar, 1982). It took 17 years to bring legislation regarding above provisions. Even after promulgation of legislations with provisions of handing over management rights to the village panchayats, the forest bureaucracy was, to a certain extent, unwilling to share "gold laying" hen.

Community forestry development began in the mid 1970s partly as a response to the deteriorating condition of the country's forests. The National Forestry

Plan of 1976 recognized that "the Forest Department has been ignoring the forests in the Hill regions and this has led to the deterioration of the watershed which are now in very poor condition." One solution was seen to be to encourage the conversion of Government land to Panchayat Forest with trees being raised by the Panchayats. External donors played a critical part: "and in that year (1977) there were visits by the World Bank Forestry Sector Survey Mission, the FAO's Technical Cooperation Programme Mission and a number of FAO/Asian Development Bank Missions. Internationally, FAO had published its landmark paper on forestry for local community development" (Griffin, 1988). Massive donor support started pouring in form the late 70's to reforest the hill sides. The programme was launched as the HMGN/FAO/UNDP Community Forestry Development and Training Project funded by the World Bank and other bi-lateral forestry projects. The Community Forestry Development Project (CFDP) was to be the flagship, however the project missed to analyze in depth the real nature of the local forestry use and it associated problems or the social and political context of the country. Rather FAO advocated the same type of objectives and largely technical activities for Nepal as it was promoting throughout the third world: nurseries, smokeless stoves, plantations, forest protection committees, extension programmes, etc. "Plant tree, protect forest" was its slogan.

By the mid 1980s a few socially oriented Government and project officials began to seriously question the preoccupation in resource creation and protection. They had by now seen that despite the generous budgets, plantation targets were rarely achieved, seedling survival was abysmal and forest management plans prepared by technicians and written in English were left to rot in Panchayat office cupboards.

A few of these people spent time in the villages and initiated a dialogue with people. Soon they learned that local forestry was much more complex and often quite different from the accepted wisdom. People could articulate many of the real reasons for forest degradation: removal of the jimmawals without creating a new institution in their place; exploitation of forest resources and embezzlement of funds by contractors, Pradhan Panchas and forestry officials; and their own helplessness. People could articulate importance and need of forests. Their level of indigenous technical knowledge was also high. Where plantations had been established it was without local involvement often using species no one wanted. Villagers were not aware that the panchayat forests had been handed over to them, committees had no mandate within which to operate and whole panchayats had been designated as the managerial unit of forests used only by a few small hamlets

Gradually, these people in Nepal and indeed worldwide, have advocated a shift from a "tree" to a "people" focus in forestry development programmes. Similarly the perception of the villagers as the problem shifted to viewing people as the solution. In November 1987 a national workshop was held to

discuss community forest management. The workshops confirmed that community forestry had "got off to a false start" and proposed a new model with "the transfer of responsibility for forest protection and management from the central government to the users" (Banko Jankar, 1987) as its focus. The most important development initiative in Nepal's forestry sector from all this is the Community and Private Forestry Programme which aims to "develop and manage forest resources through the active participation of individuals and communities to meet their basic needs" (Master Plan, 1988).

There is however a lag between the development theories and the actions of most practioners on the ground. The lag is in part due to inertia and vested interests (Leach and Mearns, 1988) and institutional incompatibility (Fisher, 1990) but also lack of exposure of the forest technicians to these development theories. There is a need to marry development theories with forestry practices and to make the new concepts more accessible to foresters, to strip them of their obscure jargon and make them sound more like common sense. "The obstacles to restoring and maintaining adequate forest cover in Nepal are not technical, but socio-political: how to make rural people aware of their rights and how to encourage them to exercise these rights and to make their own decisions" (Westoby, 1989). The problem still exists relating how to enable a forest service to change its role from policing the forests to serving the local communities.

Community forestry development will not come about by following a particular act, legislations, master plan or blue print. A major problem in the community forestry initiative was that successfully completing programmes often took precedence over the way in which they were implemented. The most important factor is to decide upon a set of principles such as participation and sustainability, not a list of activities such as user group organization and management plan preparation. Then only this problem can be minimized.

3 CHARACTERISTICS OF COMMUNITY AND PRIVATE FORESTRY

Until now in many places social forestry or community forestry refers to a programme of plantation establishment (and protection) by the Forest Department, the products of which are then distributed (by the Department) to the nearest village rather than to the nearest saw mill. However, leading practitioners would certainly reject this notion of community forestry: for people but not directed by them. The Nepal Australia Forestry Project is quite definite that "community forestry refers to the control and sustainable management of local forest resource by the users" (Trainers handbook, 1989).

The Master Plan (1988) also states that there will be a "phased handing over of all the accessible hill forests to the communities."

Although in much of Nepal community forestry is still practised as it was in the early 1980s the "real" community forestry is characterized as a state in which:

- All the forest users are **participating** in the creation, protection and utilization of the forest. Major decisions are taken with consensus of all the users by a full assembly, relying primarily on indigenous rather than outsiders' knowledge.
- All the forest users are receiving benefits from the forest. Benefits are being shared in and **equitable** way and as far as possible basic needs of the forestry products are being met.
- The **institutional arrangements** are **sustainable**, the users can depend on their own resources (financial, physical, knowledge) to sustain their activities, they are **self-reliant**.
- **Environmentally** the resource is being managed in a **sustainable** way.
- The **role** of the Forest Department is restricted to facilitating the process and supporting the users, the role of the users, the role of the user group is (through their assembly) to direct local community forestry developments.

In practice, this will usually mean an arrangement in which user group members come to an agreement with consensus on a forest management plan over a period of months. An assembly of users then endorses the plan as does the DFO. The assembly also may elect a committee to oversee implementation of its plan. The committee is wholly accountable to the users' assembly and it can formulate its own rules. The users receive benefits from the forest according to their plan while at the same time contributing to its development. The Forest Department supports the users with technical advice when necessary.

The characteristics of effective private forestry are analogous. The owner of the land should be able to take decisions about the establishment, protection and utilization of trees without interference from the Government officials. The role of the Forest Department should be to provide the private owners with advice if and when asked and services such as seedlings and registration: not to police the movement of forest products form the private land.

4 PRINCIPLES BEFORE PROGRAMMES

Community forestry initiatives in Nepal have invariably been planned, implemented and monitored in terms of targeted physical activities; construction of so many nurseries, production of this many seedlings, establishment of so many hectares of plantation, etc. With the exception of the

Operational Guidelines (1990), little attention has been given to the way in which the activities are carried out, often with absurd results. One example is the way in which community plantations are established: after selecting a planting site in consultation and collusion with a few prominent local figures a committee is formed, the committee chairman cajoles local villagers to provide voluntary labour to plant the site, the ranger then employs a watcher (often relatives of the prominent figures) to keep people out and erects a signboard with the name of the local Range Office on it. The committee chairman signs the bill and gets his share. No wonder local people perceive the initiative as a Government enterprise and take no interest in protecting the seedlings, or go so far as to chase the assistant ranger off the planting site.

This situation is perpetuated by the demand from the centre for information on "inputs" and "outputs" only. The Department of Forests (DoF) and often donors too want to know only how many hectares of forest have come under user group management not how this happened or who benefited. It is in evidence that under political pressures large patches of forests are being handed over to a few local powerful elites in the name of community forestry. The notion still exists that community forestry is "to educate and motivate ignorant villagers" with a slogan "plant trees, protect forests" or "form forest you can get fuelwood, fodder, leaves."

Even those people who do have a clear idea about their goal often have no idea **how** to reach it. This happens at all levels. The silviculturist knows the nursery is in poor condition but does not know how to improve it other than by writing a "nursery manual." The assistant ranger knows that the local people should protect the forests but other than by instructing them to do so he doesn't know how to make this happen. The villagers want to see their bare hill side planted but don't know how to do so and where to go. These are all due to lack of a development strategy facilitating the technical prescription. Without a clear conceptual framework clarifying the nature of "real" community forestry and the development processes by which it can be facilitated, the programme will never shake off its physical target mentality.

5 GUIDING PRINCIPLES

It is clear that the community forestry situation in Nepal is still vulnerable. It is being practised many ways as forest and project officials see desirable. Variations are not problems but should be encouraged. However, commitment and intent are the problems, and processes and practices must be directed by a set of guiding principles, not by a pre-determined blue-print. The principles must, of course, be in line with our vision of community forestry. When trying to decide "what to do next", how to "muddle on through" the following seven principles may be applied.

Creation of an environment facilitating real participation

> "Participation is considered to be an active process meaning that ..... the group in question takes initiatives or asserts its autonomy to do so" (Rahman, 1981).

There are many interpretations of participation. Too often in the forestry sector passive activities such as voluntary labour or listening to officials making speeches are also called "people's participation." Participation often means getting people to agree with what we want hem to do: "you must plant trees on your land (Tapaaile rukh ropnu paryo hoina ta)." However, "the idea of passive participation which only involves the people in actions that have been thought out or designed by others and are controlled by others is unacceptable" (Bhaduri and Rahman, 1971). Because passive participation will not encourage users for decision making and engender commitment it will not lead to "real" community forestry. Such groups and committees do exist in Nepal, invariably on paper only. Sustainable groups are active not passive.

Participation has different connotations at different levels. For users it means that the field staff should respect their rights to take decisions, for example, to prepare management plans. Where the weaker sections are concerned, participation in decision making can be a goal in itself: a change from being marginalised or excluded to being equal, respected and included. Where the authorities are concerned participation means that their dealings with the juniors which must be through dialogue, not directives, through workshops not training. Where the District Forest Officer is concerned, participation means that all the field staff should be involved in defining and solving problems not just the DFO. For example staff meetings should be conducted to encourage discussion, dialogue and refection; not just boring monologues (from DFO only), directives and threats on dictatorial lines.

Community forestry must be geared towards fulfilling basic forest needs on an equitable basis

> "Villagers must use forest products to survive. Village forestry is not concerned with protection of forests for its own sake, but the need to provide a sustainable source of forest products to the people of Nepal" (Fisher and Malla, 1987).

A tendency is in evidenced in community forestry to propose a blanket ban on harvesting of forest products for a while, This certainly makes forest protection easier and increases the commercial value of the resource, but the consequences for those people dependent on the community forest can be disastrous. The principle should rather be one of benefit sharing not just forest protection.

Users are rarely made up of distinct, socio-economically homogeneous communities, rather they tend to be a mix of different ethnic and caste groups, a mix of wealthy and impoverished families. A basic principle of community forestry development must be that all members of a group can receive a **share of the benefits** of forest management; not just those who by virtue of their position in society are more able to exploit the resource. The precedent has to be clearly set that community forests are truly common not private or committed resources. To bring this about may involve making a special effort to empower the poorer groups.

The needs of different "interest groups" within the user group will also vary (Fisher and Malla, 1987). Those people with large private forests may not need daily products form the common forest, rather they see it as a source of occasional high-value products such as timber. The needs of the poorer sections vis a vis the community forest may well be for more basic needs such as fuel, grass, thatching materials. If a choice has to be made between the two management objectives then the fulfilment of **basic needs** has to have priority.

Sustainability is not a slogan but a practice to become independent and self-reliant

In order to be sustainable action initiated at any level must try to be dependent only on the resources available at their own levels, not on external inputs. The exceptions can be one-off inputs that are used to start-up a process, for instance a single payment into a user committee account to create a revolving fund. Paying the user group for every activity it carries out will lead to corruption and dependence, not self reliance.

Self reliance does not only refer to financial self reliance it refers also to decision-taking. If the official insists on taking decisions on a group's behalf, the users will never build up their own self confidence: "don't ask us, ask the ranger sahib." The way a project vis a vis the implementing organization operates, also affects the likelihood of sustainability. If the project chooses to operate by carrying out the field work itself, or hands out large "incentives" then the work will collapse on the projects's departure if not before. If however the project restricts itself to a supporting role, provides competent assistance and necessary field equipment, activities may continue after it has finished.

Sustainability also refers to the environmental as well as institutional aspects of social forestry. The forest resource is limited and should not be over-exploited.

Flexibility is needed to accommodate variations and learning from processes

> "Evaluations are beginning to indicate that flexibility in planning and design, opportunity to adjust plans as projects progress, and continuous redesign during implementation, are essential for success" (Rondinelli, 1983).

Situations vary from country to country and place to place. No two districts, no two sets of field staff are the same. One district may be blessed with a keen young officer full of new ideas and energy, another district may have been landed with and "old-style" officer, never before exposed to community forestry and more interested in directing territorial activities from his office chair. In either case the project will have to modify its original intentions, the same strategies will not work in the two districts.

Similarly, every user group is different - it is not possible to follow the same series of steps at each site. New problems will be left undiscovered and new issues unresolved. Often where user groups are concerned "each step is an experiment" (Griffin, 1988).

> "The basic concept which has come out of 10 years of experience is that implementing community forestry involves mutual learning by forest department field staff and village users. This process does not lend itself to implementation by blue print. This is particularly relevant where blue prints are designed at the central level by people who lack relevant implementation experience" (Rai et al., 1990).

The first word in community forestry is community then only comes forestry

In "Management of Forests for Local Use in the Hills of Nepal: Changing Forest Management Paradigms", Gilmour, King and Hobley (1989) propose that "the notion of a changing paradigm has great importance in determining appropriate strategies for providing development assistance in the forestry area." They go on to explain that in the late 1970s to late 1980s "community forestry was operating from within a very traditional, western influenced paradigm. In this particular paradigm of forest development, the forests are the central focus with everything else being peripheral."

Furthermore the "new paradigm puts people at the centre of the 'forestry problem' and makes everything else peripheral. While this sounds somewhat trite, by making this shift one adopts an entirely new and different perspective of decision making and action in solving problems".

There is a huge role to be played by technical innovation in community forestry, but only as a service to local people, not as an end in itself. A classical example of the old paradigm is the fashion for creating model forests and demonstration plots. The technicians create the plots without considering the institutional aspect who they are to be a model for. No prior effort is made to involve local people who view the plots as concerning only the Government not themselves. But if local people are made the focus of the work, and an effort made to create local institutions that will manage the forests (user groups) then demand soon comes in from the new groups for advice on

technical aspects - "we want to learn how to cut the tree properly, please come and teach us." This is the time to make a model forest, together.

Outsiders such as forestry and project officials are not community members, so they can just facilitate and support

If it is accepted that the role of the users is to take decisions, then what are the roles of the line agency and project staff? As they are not users they have no rights to make decisions. They can be facilitators who support, assist and encourage the community.

> "We need outside help for analysis and understanding of our situation and experience, but not for telling us what we should do" (Rahman, 1980).

Outsiders such as the field and project staff can help communities bring about their own development. Freire argues that this is only possible if they have "respect for the knowledge and experiences of the people worked with. The outside expert is not there to fill them up with his or her knowledge, instead there must be dialogue so that the relationship becomes one of co-learners and co-teachers. The work is "with" people not "on" them. The substance of the dialogue is built on the themes and problems of the people in the area. Its aim is for them to speak their voice; and ultimately their empowerment. Freire argues that the means used to achieve this must reflect the ends. For example, he insists it isn't enough for the worker genuinely to intend working towards people's empowerment - she or he must not mislead or manipulate them, steering them towards a goal chosen by the worker but hidden from them." (Stanton, 1989).

Don't flicker with easy way, be consistent with principles

Oxford dictionary defines consistency as "being constant to the same principles" and "being compatible with."

All too often we agree on a way forward during a workshop or staff meeting only to carry on with the same old activities in the field not caring that they are incompatible with our new found principles. The same applies to the above principles. If they are to have any effect they must be consistently applied, not just when it suits us to remember them.

6 INITIATION OF COMMUNITY FORESTRY ACTIVITIES

In many countries the first step towards community and private forestry would still be to push for a favourable government policy and accompanying legislation. In Nepal this hurdle has already been passed with the approval of the Master Plan and the new Forestry Bill (1992). However, it is also seen that rules, legislations and programmes are not the main bottlenecks, rather

commitment to implement them honestly is the main hurdle in community forestry development. Operational Guidelines (1990) for the implementation of the community forestry programme have also been prepared but certainly this has not made rangers' job easy.

In all likelihood the situation we may encounter that the DFO may have had the Master Plan or Operational Guidelines for some time but has probably not digested their contents. The DFO does not have the experience to lead his staff; he has sent them out to form groups and they have come back with the names of a few "instant" committees. There is no local capacity to implement the programme, and with little support form the centre no commitment either. In the villages people seem to be hacking away at the forests and grazing down the regeneration the same as ever.

6.1 TECHNOLOGY FOCUS

Faced with this situation a lot of projects decide to tackle it head on, with the latest technology, money, education programmes and incentives. The project draws up a programme focusing heavily on creation of new forest resources: spending money on raising and planting trees for some amorphous group of village beneficiaries, who never find out that the seedlings are meant for them. This kind of project often tries to improve the condition of the existing forest resource by setting up demonstration plots. The prescriptions carried out in the fenced off plots unfortunately neglect to explain how local people could also obtain the rights to do this. A few committees are organized to manage community forests, but without a mandate under which to operate. Education programmes are run to give people all the knowledge about the forest they already possess, that it is important and supplies them with fuelwood and fodder. To involve the DFO staff, the project runs skill training courses, hands out equipment, manuals, incentives and targets. The underlying inertia and lack of interest in the DFOs is never tackled.

The end result of all these costly activities is..... nothing (figure 6.1). No change is engendered in the District Forest Office. No linkages are set up between the different activities and with the local communities. Any short term gains are lost when the project leaves.

	ACTIVITIES	RESULTS
PROGRAMME PREPARATION BY PROJECT (implemented by/ with DFO)	• Reforestation ----------> • Demonstration plots ------> • Seedling distribution --------> • Forest protection committees ----------> • Private planting campaigns -> • Study tours ----------> • Skills training, incentives and targets for field staff --->> • Monitoring and evaluation -->> ▪Education programmes for villagers	NOTHING REMAINS ONCE PROJECT LEAVES

Figure 6.1: One way of initiating community forestry

6.2 INSTITUTION BUILDING FOCUS

The primary task in community forestry development is to create the institutions that will establish and manage the forests; the user groups. Only once these groups are in place, any progress be made on improved forest management, widespread reforestation, private planting or benefit distribution.

Going back a step we must ask "who is going to organize and support the user groups?" In the beginning this role belongs to the field staff, who, as already discussed, are neither committed to, nor conceptually clear about this job. Tackling this blockage must then be our starting point. Figure 6.2 depicts an alternative process to develop a community forestry programme. The different steps are highlighted in figure 6.2.

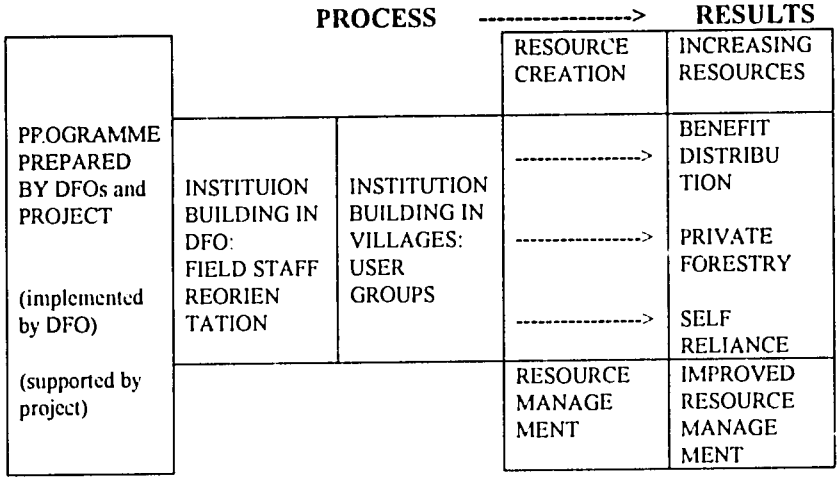


Figure 6.2: A new way of initiating community forestry

Programme preparation
This is a team building exercise among and between the project and the DFO staff to agree on initial strategies, activities and roles. The programme should be flexible and should change as the work progresses. It is not a blue-print. In a later phase, organized users must be included in such programme planning.

The outputs of the discussions should be a brief overall strategy paper for the whole project area and general programmes detailing goals, areas of pilot activity, responsibilities, review and risks. The programmes should leave the finer details e.g. sites to work on, to be decided by the field staff at reorientation workshops.

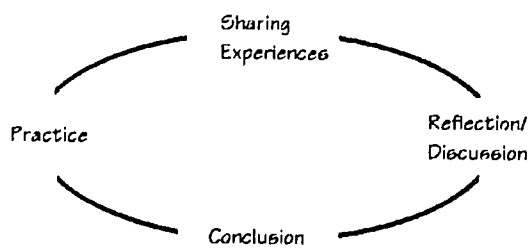
A learning process approach to programme development should be adopted. The learning process approach begins with the assumption that the action agency is unclear on how to implement the new intervention strategy, but its top officials believe that the new strategy is worth pursuing. The agency's intention is to learn about, the field intervention methodologies through action and to determine the implications for the agency's existing policies and procedures. If the agency expects the adoption of the new intervention strategy on a large scale, changes may be required within the agency including the development of new capacities.

Field staff reorientation

An attempt at solving and tackling fundamental problems through workshops, field exercises, follow-up support and change in the working environment, reorientation leads to the building of institutions with the DFO that can support community forestry at the district level[1].

Reorientation which encompasses change in value systems and attitude is different form retraining; it attempts to tackle the fundamental issues, not just acquisition of knowledge. Reorientation is possible only through deliberately sympathetic approach to the field staff. There is no other way of enabling the field staff to become dedicated to community forestry and become professional in their job than for those in positions of authority to trust them, support them and treat them professionally. Participatory workshops can be used to begin the process of reorientation. The workshop is essentially a series of discussions on aspects of Community Forestry. In these discussions there is no teacher-pupil relationship, rather it is accepted that everyone has something to contribute from their own experience.

"It seems obvious that to bring about participatory development we need a participatory approach to training" (Bhasin, 1989).



This learning model can also be successfully used at District Forest Office staff meetings, seminars of local leaders, and during extension work in the villages. The model is useful in any situation where open discussion or team building or reaching a consensus is needed.

Often the facilitator will have to challenge the views of the participants during the discussion; for instance on the reasons for forest degradation. Invariably most rangers re-assess their stance and often decide to change to a more honest one; for instance that forest destruction is due to the policies of the Government and the actions of the local leaders: not just due to villagers ignorance. In this way attitudes slowly change. The role of the workshop facilitator is essentially the same as that of the facilitator in the village: to help people analyze their situation. During the discussions the field staff also

[1]see Shrestha, N.K. & Gronow, J.V. (1990). (1992a) and 1992b

develop their ideas. By the end of the workshop they should have developed both a conceptual framework, a set of practical guidelines and commitment for the initiation of community forestry.

Institution building: user group organization

It is important at the initial stage that user group organization proceeds on a restricted rather than an extensive basis. Although the actual process of user group organization is different at each site five distinct phases can generally be recognized:

-Commitment from the DFO staff.
-Preliminary investigation of the forest and its possible users.
-Investigation and interaction with all the users.
-Consensus building of the users about forest management.
-Formalization of consensus and handover of forest.

The output of the process is usually an organized group, a management plan and a user committee.

It is important that stages are seen as a process rather than as physical activities such as house to house visits and group meetings. Equally important, the investigation and consensus building work should not be approached as extension work, there are no new ideas to be "extended" to the villagers, rather the work is compatible with community organization or participatory planning.

Throughout the process the equity aspect, must be addressed; the ideas proposed by one or two member of the community may be technically sound but will everyone be able to benefit from them? Where an local management system is already in place It is **STRONGLY** recommended that it is also investigated before being formalized. It is very dangerous to legitimize existing systems without confirming that everyone is happy with them.

Another feature of pilot user group organization is the limited importance place on technical advice. Technical innovation is important but only once there is an institution in place to use it. Often it is better to encourage the users to rely on their own (perfectly adequate) indigenous silvicultural knowledge at this stage so building up their confidence, leaving (marginal) technical improvements to later.

A very important feature of a successful pilot stage is that it will set the right precedents. If the first user groups have the characteristics of "real" community forestry described above, then the groups that come may be similar. Likewise if the wrong precedents are set. This is particularly important where the only local precedents for common property resource management have been those set by the jimmawals or panchas. Once the pilot groups are in place a staff

meeting should be held to review the work and suggest changes in the guidelines.

Resource management and benefit distribution

The resource management activities the users intend to carry out will be specified in their management plan. Most plans cover a similar range of activities which can be grouped into physical activities, non-physical activities, and management of private tree resources. Groups do have the ability and commitment to manage a resource, as evidenced by the fact that they have prepared management plans. The groups are particularly strong in the following aspects of resource management:

- **Indigenous silvicultural knowledge**: The groups knowledge is invariably greater than that of the DFO staff and certainly adequate to enable them to devise sound silvicultural prescriptions.
- **Institutionally**: The group is in a stronger position than the DFO staff to manage forests, the group has a mandate from both the users and the Government to go ahead.
- **Motivation**: Motivation among group members to improve the resource is generally higher than among DFO staff. The users motivation is that they will benefit from the improvements.

Although users as individuals do have very good silvicultural knowledge gained from managing trees on their own land and from observing the forest, this knowledge may never have been applied to management of a common resource before. To date the community forest will probably have been under either a blanket protection "regime", an unregulated "free for all", or the control of one or two individuals.

To implement its plan, the group may well have specified that it needs certain external inputs: seedlings from the DFOs nurseries, office equipment, advice on landslide control techniques, help with calculating stocking or demarcating the boundary of the forest. If these inputs are not forthcoming the group is going to become demoralized, gradually moving from an "everything is possible" stance to a feeling that "nothing is going to change." One by one the ambitious plans will be shelved. Some problems may be built into the structure of the group itself. Those groups that are small and made up of say, thirty inter-related Rai families are more likely to succeed than large groups which have to accommodate and reconcile different ethnic, political and economic factions. In addition the homogenous groups are more likely to have worked as a community before. The factions have different, often conflicting needs and in the case of political factions will probably not even trust each other. In these groups the onus is very much on the committee to implement the plan.

The mechanism by which management activities are carried out is dependent on two implementing institutions; the assembly and the user committee, (a third

institution - the Forest Department will also be called upon to provide support). It is important that the first institutions are active. The assembly to take the decisions that will act as both mandate to the committee and a check on it; the committee to ensure the wishes of the users it represents are carried out. To a large extent the success of the user group depend on the strength of these two institutions. Regular user groups networking will strengthen groups morale.

Forest resource creation
The creation of user groups will proceed slowly at first. Reforestation will probably continue through the Forest Department but with a gradual transfer of responsibility to user groups.

Private forestry
Many of the blockages in private forestry are caused by lack of trust in the government, lack of supporting services, and protection problems. Rangers reorientation and user group forestry should have a positive impact on private planting too.

Monitoring and evaluation
Most of these activities will be uncharted territory for project, field staff and users. On-going monitoring and evaluation will be an essential learning and management tool.

6.4 CONCLUSION: INSTITUTIONAL CHANGE AND INSTITUTIONALIZATION

"A major challenge over coming decades is bureaucratic reorientation (Korten and Uphoff, 1981) including a change form authoritarian to participatory styles and a shift in responsiveness from orders from above to demands from below (Chambers, 1983)."
The working environment in which the field staff find themselves must also be conducive to their new role. It will be difficult for the field staff to adopt a service-oriented role when the value system they work within encourages them otherwise. Change in the value system of the Forest Department needs to come from the higher levels first - senior officials and senior project advisers.

Furthermore, the present hierarchical working style of the Forest Department is not suitable for sustaining community forestry development. An example on one area in which change is needed is field staff meetings. These are at present often in the style Chambers (1983) describes:

"In meetings subordinates are upbraided, cajoled and given orders. They are asked for reports or targets achieved, not for problems encountered. Poor performance or deviant initiatives are rewarded by punishment or posting. Promotion comes, if at all, through compliance or through working in

headquarters. Real problems of implementation or impact are repressed; appearances of achievement applauded. Senior officers do not learn from their subordinates and subordinates do not learn from their rural client." A more appropriate style of working would be stimulative and supportive rather than directive and punitive.

In order to implement the process described in this chapter the various levels of institutions needs to be strengthened for decision making, effective management, planning and monitoring. For a project this could be achieved through experience sharing as well as team building exercises. However, a project will have to transfer skills and technologies to the DFO staff as well as the users so that those institution are strengthened. Slowly and gradually, the project should move from an active to supportive role and eventually pull out its support so that other institutions can try to build on their own confidence gained during the project period.

The DFO as an institution is strengthened by the workshops, participation in decision making, and field practices so that the district staff are able to initiate a user group organizing process and continue to support and strength user groups. As soon as the user groups become confident and skilful the DFO staff will have to move to another area. In this way, a sustainable process of enabling users to manage their community resource will evolve.

Eventually, users' assemblies will be making decisions about the types of development activities they want to initiate in community and private forestry. The users' committee will translate these decisions to user level planning. The user group networking workshops will collect and compile such plans from all the user groups and collect as district level plans which will be forwarded to the concerned District Level Committees. Compilation of the plans by the Project Level Committees will become the project planning which will be fed into national planning mechanisms. Thus a bottom-up planning process may be initiated.
This will initiate a bottom-up planning process which should be viable in the current political climate in Nepal. To build support for the process, networking of users at the national level will be required. Publicity to raise awareness about the process will create sympathy and support. Various visits from and to projects will develop networking relationships and such interaction will effect changes in the process itself.

This change in the planning process will be possible if various committees, meetings, and workshops initiate a participatory process and delegate decision making authority to lower levels. All the meetings and assemblies at the user level, the DFO level, the project level, and higher planning level need to be conducted regularly on the proposed **experiential model** then only will this kind of planning process emerge and empowerment of users take place.

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7. EXPERIENCES AND STRATEGIES IN FORESTRY EXTENSION IN THAILAND

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1 INTRODUCTION

During the last century forests in Thailand belonged to the local governors. During that period Thai forestry aimed at timber extraction and benefits were mainly shared among people who were trading timber and wood products. Only few benefits reached small groups of local people and mostly in the form of employment. As a result local communities were left with deteriorated forests, and groups of landless and unemployed labourers scattered in the forests The establishment of the Royal Forest Department (RFD) in 1899 and its operation for almost a century could not sustain the productivity of forests.

Since then various measures have been applied to maintain existing forests. First, conservation to keep forests from being destroyed and second, development to restore forests. However, both forest conservation and development undertaken by the government have proven to be not entirely successful due to constraints of manpower, budget and its bureaucracy. Extension is an approach that may be able to overcome the limitations of forest conservation and development work by the government.

After giving a brief introduction on the forest situation, forest policy and some forestry programmes, this paper presents experiences and strategies of Thailand in solving forestry problems particularly related to the implementation of community forestry and agroforestry extension, and the institutionalization of extension in the Royal Forest Department.

2 FORESTRY SITUATION

Except for a few very small woodlands privately acquired, all forest areas in Thailand could be said to be state-owned. Figure 2.1 shows the tremendous deforestation rate. In 1961 the forest area covered still more than 53% of the total area against 28% in 1988. Whereas a total area of approximately 12.9 million acres of forest was lost over this period, the average deforestation rate amounted to 480,000 acre per year.

In order to address the problem of deforestation, the RFD has implemented forest plantation programmes since 1906. In the late sixties private organizations, like Forestry Industry Organization (FIO) and the Thai Plywood Company Ltd., have also started establishment of plantations. At a national level the importance of afforestation was realized and the National Social and Economic Plan no.5 (1982-1987) and no.6 (1988-1991) set afforestation targets of 48.000 acres annually emphasizing the role of the private and public sectors. From the inception of its reforestation programme until 1989, the RFD planted trees in an area of more than 2.2 million acres. In addition, state enterprises and private sector entities planted a total of 89,000 acres as fulfillment of the conditions for granting logging concessions.

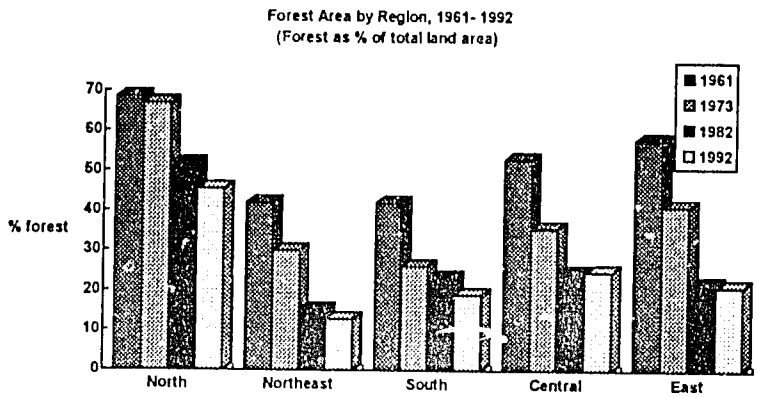

Figure 2.1: Development of Thailand's forest areas by region (1961-1992)
Source: Aerial and Satellite Photo Survey Section, RFD

3 POLICIES AND APPROACHES

3.1 FOREST POLICY

In the past, the determination of forest area was made arbitrarily without taking into account the relevant facts. This has led to persistent disputes between people and agencies concerned and has caused the lack of cooperation from them. Consequently, the Forestry Development Plans under the National Development Plans were not successful and the RFD was accused of not being effective in managing and protecting the forests.

In order to overcome that problem, the government formulated the "National Forest Policy" in 1985 with the purpose of managing and developing forest resources continuously and consistently with other natural resources. Guidelines for forestry extension were included, like: (i) giving education to the

people and (ii) encouraging the private sector to invest in tree planting activities. The policy aimed at a long-term and coordinated national forest administration and development and a creation of a better understanding between state and private sector. Further it suggested the establishment of a National Forest Policy Committee for policy formulation, supervision and management of national forest resources. Also it specified criteria and targets for protection and conservation forests (40% of the total land area). Moreover it called for amendment of forest acts and development of technical guidelines to support efficient forest resources conservation and utilization.

The disaster resulting from a sudden flood and landslide causing severe destruction to lives and property in the south of the country towards the end of 1988 spurred the authorities into action. It was clear that the disaster was brought about by forest destruction and misuse of forest land. The government therefore amended the Forestry Act and the National Park Act, with the view to terminate logging concessions throughout the country. Wood consumption substitution schemes were planned and timber was imported from neighbouring countries. Existing forests were to be consolidated, while encroached forests were classified for agrarian land reform and private tree planting promotion under the project of "Forest Land Zoning."

Industrial forest plantations have also been emphasized in the government policy for instance through the Forest Plantation Act (1992) to stimulate tree growing. This plantation scheme mostly aims at producing wood chips for export. After some time, it is planned to establish a local factory to produce paper pulp and other related products. A clear policy on industrial use of plantation products is however still to be worked out.

3.2 FOREST DEPARTMENT'S APPROACHES FOR MANAGING AND RESTORING FORESTS

Various approaches have evolved in the Royal Forest Department (RFD) to manage existing forests or restore degraded areas. The following gives an overview of three approaches, i.e. conservation approach, economic and social production approach and watershed management approach. Each of these approaches is applied for different areas. The following gives some parameters.

The conservation approach aims at conserving existing forest resources. These are classified as:

- National park area
- Wildlife sanctuary area
- Other conservation area (i.e. botanical garden, forest park)

The RFD so far has designated 63 national parks and 33 wildlife sanctuaries.

The economic and social production approach mainly aims at increasing the countries forest resources, and recognition of the changed status of forest lands converted to agricultural use, through:

- Forest plantation
- Forest village
- Community forest
- Land use rights for cultivation
- Land for lease
- Land reform

The management of forest area to increase economic benefits comes in the forms of forest plantations, forest villages, community forests and permitting farmers to rent forest area for agriculture. So far, the RFD has established plantations with an approximate area of 1.6 million acres, the village forest project established an area of 13,500 acres and the S.T.K. project (project to provide usufruct certificates) an area of 2.9 million acre. Moreover an area of 1.7 million acre has been leased to farmers.

The watershed management approach aims at conserving and managing watershed areas for water conservation. For people residing in the highland watershed conservation and the cultivation are integrated. In this approach "Watershed and Permissible Land Use" is classified and divided into five categories based on the values of various factors such as soil, slope and vegetative cover. At present, watershed management has to face the problem of hill tribe resettlement in the first class (most critical) watersheds. As a result, watershed management has developed rather slowly.

It is increasingly realized that extension support and approaches may be required in all three approaches, in all areas where rural people live in or nearby the forest areas concerned.

Experiences with a range of pilot activities, by a variety of international, government and non-government organizations, under a variety of conditions and in support of all three types of approaches have contributed much to the continuing process of institutionalization of forestry extension in the Royal Forest Department. The Community Forestry Extension Division is the result of both the pilot activities in the field and a systematic training programme of officers in the division.

4 EVOLVING STRATEGIES IN FORESTRY EXTENSION

In the context of the Thai Royal Forest Department forestry extension has been assigned three major roles:

- as a learning process to understand people and their working environment;
- as a tool, to build up cooperation with the people concerned, and
- as a catalyst to promote the establishment of community forestry and agroforestry systems for accomplishing widely accepted aims.

Extension is a collective means for achieving increased protection and production of forests through mass participation and for raising the social and economic well-being of the rural community. Forestry extension cannot claim to deal with all obstacles to development, but it can promote an interest in the close examination of local problems and a spirit of self-reliance in tackling them. It must be viewed as the whole process by which the public and appropriate agencies concerned combine their skill and resources to achieve certain forestry development objectives with the intention to assist people to bring about improvements in their economic, social conditions and environment.

Forestry extension has been targeted to various people in different situations. Various extension approaches such as commodity specialized approach, training and visit approach, participatory extension approach, project approach and cost sharing approach are being implemented. According to site specific problems, an effective extension approach should be chosen. In the case of conservation and community forestry which emphasize sustainable environment and social benefits for people usually the participatory forestry extension or "bottom up approach" is preferred. While for the strong promotion of commercial farm forestry a commodity development and production extension approach is followed in order to get quick returns.

In all cases the common element that makes forestry extension different from the more policing oriented, conventional forestry strategies in dealing with rural people, is that in forestry extension it is attempted to influence people's behaviour by offering them a more attractive alternative to their present behaviour.

5 EXPERIENCES GAINED

Extension strategies have evolved (and still are evolving) through a number of conspicuous forestry projects and/or programmes in Thailand. These are the following:

- first attempts, through the forest village project and village woodlots, followed by:
- rural development through watershed management;
- community forestry projects;
- a variety of projects supported by (international) NGOs, such as SAVE, CARE and international organizations (FAO, WWF, etc).
- participatory forestry development through extension; and related support to institutionalization of extension in the Royal Forest Department.

This chapter seeks to offer some brief notes and experiences of some of these projects and/or programmes.

5.1 THE FOREST VILLAGE PROJECT & VILLAGE WOODLOTS

Both programmes were initiated in the 1960s; the forest village project was concerned with the people living dispersed in degraded forest lands. It was attempted to resettle them in villages, on sites that were more suitable for agriculture, provide support in village development (schools, water supply, electricity), allocate forest land for farming, provide agroforestry extension support and offer employment to villagers in plantation establishment and maintenance.
Many of these villages were initiated by the Forest Industries Organization to improve the living conditions of the villagers employed by it.

Altogether, households in 104 villages have been allocated 2.5 ha of forest lands for farming and homestead, and provided with amenities (electricity, water supply), often after resettlement.

Extension in the Forestry Village Project has emphasized land use promotion for complementary income and sustainable farming systems. Agroforestry and tree planting have been introduced in order to get full utilization of the land for increase in production and income and diversification of products.

The village woodlot project was a component of a rural energy development project, in which villages with a shortage of fuelwood and other forest resources were assisted to plant village woodlots, to be used for fuelwood. *Eucalyptus camaldulensis* plots were established in about 20 villages, on village lands, but not always in the villages that had been identified as having a fuelwood problem. It was found that these villages often did not have the land resources for the establishment of 10 to 20 ha plantations. The woodlots were often established, upon agreement with the village headman, with little

involvement of other villagers, except for the wages they received for their labour in the establishment of the woodlots.

In some villages the woodlots have been successful in that the sale of poles and to pulp and paper companies did boost village income to be used for village development purposes.

Experiences with both approaches, however, also demonstrated the need for more active participation by the villagers. This was now perceived as a major task of forestry extension, and ways and means to achieve this were developed in a range of 'second generation' pilot projects.

5.2 RURAL DEVELOPMENT THROUGH WATERSHED MANAGEMENT

The project, the "Rural Development Through Watershed Management in the Nam Phong Basin", was initiated by the RFD/UNDP/FAO in 1982 with the active involvement of the local people, as part of the Integrated Development of the Phu Wiang Watershed in the Northeastern part of Thailand. The project originated from the need felt by the RFD of deforestation and degradation of uplands in the Northeastern region of the country. The project's objectives were threefold:

- to stabilize the forest boundary and prevent deterioration of the upland catchments.
- to promote rural development by diversifying the economy and creating new sources of income based on the sound use of forest land and water resources.
- to strengthen the capacity of the RFD to replicate its experience in the planning and management of integrated watershed development.

The project was implemented from early 1987 until the end of 1989. The watershed rehabilitation was done through reforestation and agroforestry. Its activities could be grouped as follows:

- awareness raising campaign
- establishment of Village Contact Volunteers (VCVs)
- village workshops
- involvement of village leaders, religious leaders and local schools
- training in income generating activities and leadership skills
- intensification of productive activities on private and community land
- introduction of credit schemes or a revolving fund to support the villagers in diversifying their income
- strengthening the coordination among organizations and agencies for the benefit of the villagers.

The project recommended that to be successful in watershed management the long term ecological and socio-economic aspects need to be emphasized. It

was concluded that in participatory extension, especially where the aim is to involve disadvantageous groups like the poor and women, it takes quite a long time to reach an appreciable level of impact. The project also concluded that the time required for accomplishment of extension activities such as group formation, fruit tree improvement, integrated farming and effective use of land varies and ranges from 2-6 years.

5.3 COMMUNITY FOREST PROJECTs

Traditionally the rural Thai communities conserved land and forest for their own use such as for construction timber, firewood, raising livestock, cemeteries, watershed protection and collection of minor forest products. The rapid development of the rural area together with the urbanization and industrialization created tremendous demands for land and wood from the forests. The newly established communities need land to establish forests to cater for their needs, while the existing communities lost their communal land for cultivation to the younger generation and disadvantageous groups like the landless poor.

In northern Thailand, various cultural minorities have their own indigenous systems of forest management.
In one pilot project, in which Chiang Mai University, Kasetsart University, the Public Welfare Department, and the Royal Forest Department (with support from the Ford Foundation) have collaborated since 1987, a 'participatory land use planning' approach has been developed in which the development of local management institutions is taken as a major objective in the land use planning process.
This approach has been adapted and adopted by an increasing number of other projects and has demonstrated the type of skills and institutional changes required to plan and implement land use improvements with villagers.

Apart from its own community forest programmes, the government also encouraged and supported NGOs in helping rural communities to formulate village groups and organize community forests. A Community Forest Act is being drafted to secure the right of the community and the sustainability of the forest and to facilitate the collaborative efforts of concerned agencies.

5.4 INSTITUTIONALIZATION: PARTICIPATORY FORESTRY DEVELOPMENT THROUGH EXTENSION AND RELATED SUPPORT

To enable the incorporation of the lessons learned from the pilot activities it has been found important that there is a core group of people in the forest department actively involved in these pilot activities, and with access to further training to build an extension capacity in the Forest Department. The

Community Forestry Extension division, represents one of such core groups, with good linkages to universities, NGOs and other government departments as well as other divisions in the Forest Department.

Also, to institutionalize forestry extension approaches in the Forest Department in the regional, provincial and district offices, special efforts are needed. One of these efforts was the 'participatory forestry through extension' project with the following objectives:

-Establishment of effective forestry extension capabilities and services at the central and territorial institutions of the RFD;
-Integration of community forestry methodologies into the RFD extension system;
-Acceleration of reforestation by small farmers, school children and through production of seedlings and technical advice, and;
-Generation of information and capabilities within the RFD to promote investments by small scale wood based enterprises in tree growing.

The forestry extension component of this project has three main elements:

- the forestry extension office;
- the forestry extension plans and methods;
- the territorial forestry offices with three special units, i.e. Forestry Extension Officer (FEO), Mobile Unit Team (MUT) and Forestry Extension Demonstration Centre (FEDC).

The FEO is a person equipped with a motorcycle who is supposed to interact with farmers on a person to person basis for tree planting promotion. MUT teams are two-person teams, equipped with 4-wheel drive vehicles and audio-visual tools who are assigned to undertake public information and forestry awareness campaigns through group or community meetings in 47 provinces. FEDCs were established at strategic locations to provide further support to extension. The FDCs undertake surveys and document agroforestry systems of progressive farmers; illustrate selected agroforestry systems in demonstration plots in a centre for training farmers; provide production data; and conduct agroforestry study tours and training for target farmers.
Some indicators of the project are shown in the following table.

Table 5.1: Extension units and their targets

Type of Unit	Number of Units	Coverage
District Forestry Extension Officer	100	5 villages per FEO
Forestry Extension Mobile Unit	10	depending on area
Forestry Extension Demonstration Center	7	depending on area

Because of the immense number of farmers and expansive operation area, the project divided the target farmers into four categories and the target area into two by the following priority.

Target farmers:

- The group of farmers dwelling in the National Forests Reserve Area who have received the usufruct certificate (S.T.K.). The emphasis of activities should be on extension and public relations.
- The forest encroachers who stay illegally in the National Forest Reserve Area. The extension activities should be the provision of the public information in order to make them follow the rules and regulations, for example the legal permission for use of the forest land.
- The group of farmers who, with land ownership title, stay near the forest area. The extension activities must stress on public information in order to establish forest as a buffer zone between forest and permanent cultivated area.
- Village leaders such as Tambon council, village committee, religious leader and teacher.

Target areas:

- Private lands with farmers that fully cooperate with the extension officer. They should be considered as potential contact farmers for expansion of extension in the future. Extension should reduce activities in areas where the farmers did not actively cooperate.
- Reserved forest with emphasis on areas where the forest is degraded, and where government projects such as forest village project, land allocation project, land development project operate. The emphasis should be on fragile land which is vulnerable to damage by soil erosion.

The forestry extension strategies of the project can be divided into three modes according to differences in extension objectives and activities.

- The extension which emphasizes on conservation for example, the extension work of the National Park Units, Wildlife Conservation Units, and Watershed Management Units.
- The promotion which emphasizes on the social and economic benefits of forestry for the farmer and local community.
- The promotion which emphasizes the economic value of forestry in areas where the commercial return is good.

To make the structure of forestry extension more efficient the field extension units had to be localized at every level of the government structure, for example region, province, district, tambon and village.

The extension office consisted of the following organizational units:

- General Affair Section. Functions: finance, accounting, store, and equipment of the office.
- Coordination and Planning Sub-Division. Functions: liaise with local agencies, national and international organizations; plan activities as stipulated in the Project, prepare master plan, annual work plan, annual budget; monitor budget expenditures, the use of equipment and supplies; and organize meetings of project committees.
- Media Production and Publicity Sub-Division. Functions: produce audio-visual aids, art-work, technical papers, guidelines, printed materials for participatory forestry extension; information on technology for studies and research; render technical services; maintain relations with the public; cooperate with Divisional Forest Offices, Provincial Forest Offices, and District Forest Offices in the dissemination of printed materials.
- Extension Development Sub-Division. Functions: implement annual work plan and budget; draw up training plan, training curricula of forestry extension for FEOs, MUTs, FEDCs; develop curricula, training techniques, training materials and methods in accordance with the intent of the forestry extension.
  -Monitoring and Evaluation Sub-Division. Functions: undertake monitoring and evaluation on implementation of forestry extension; coordinate with the extension implementation, monitoring evaluation of the activities of FEOs, MUTs, FEDCs; analyze and recommend reports; analyze and evaluate forestry development and extension and project management information services system by computer hardware.

It is obvious that the attitudes of those working in an organization are of prime importance for reaching its objectives. A study on job satisfaction and attitudes was conducted in three regions (north, northeast and central regions) by means of interviews and questionnaires. The respondents were extension officers of the forestry extension mobile unit team, district forestry extension officers and forestry extension demonstration officers.

Most extension officers who currently work on forestry used to be forest rangers or chiefs of forestry projects. They used to treat villagers like encroachers or labourers. Although they have already changed to a new line of extension work, it turned out to be difficult to change their working behaviour.

In the government bureaucracy, although some authority has been given to the local governor, the personnel administration still remains with the central head office. A big gap exists between extension officers and administrators. Moreover, there is no controlling system to judge the performance of field extension officers, so that they could get promotion.

FAO NETWORKING EXPERIENCES IN AGROFORESTRY AND RELATED FIELDS IN ASIA-PACIFIC

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1 BACKGROUND

In the Asia-Pacific region, the Food and Agriculture Organization of the United Nations (FAO) works primarily with 30 member countries that range from Iran in western Asia to several countries in the South Pacific.

FAO member countries work together through global, interregional, regional and country-level programmes and projects that cover various sub-sectors or aspects related to agriculture, fisheries and forestry. At the end of 1990, there were nearly 600 FAO projects, including 80 regional ones, operating in Asia-Pacific, with a total budget of almost US$ 500 million and representing 25 percent of FAO project activity worldwide.

In the forestry sector, FAO projects have been evolving from solely country-level activities to a mix of both national and regional project/networks. In 1980, there were about 40 FAO-executed national projects in forestry in Asia-Pacific. Since then, several networks, starting with RWEDP in 1982, have been launched to focus on specific priority areas on a regional basis, and in collaboration with national institutions and projects. Hence, all regional projects and networks are part of a unified regional core programme built up and supported by FAO-RAPA (Regional Office for Asia and the Pacific Region) during the past decade).

1.1 WHAT IS A NETWORK?

Most importantly and essentially, networks are about people and the institutions in which they work. Many international and regional organizations, including ones in the private sector, are supporting network development activities in a wide range of fields such as rural credit, NGOs, fisheries, integrated pest management, community forestry, wood energy and agroforestry.

FAO has considerable experience in the initiation, development and support of networks. Some of these experiences and lessons learned have been distilled in the "Guidelines for the establishment and support of technical cooperation networks" issued by FAO's Evaluation Service in 1992. A study undertaken by FAO in 1990-91 found some 135 networks in agriculture, fisheries, forestry

and rural development supported by FAO within the framework of technical cooperation among developing countries (TCDC).

The FAO Guidelines defined a technical cooperation network as "a voluntary cooperative arrangement among institutions in two or more countries, set up for a period of at least several years, to carry out jointly certain specified activities (information exchange, research, training, exchange of personnel, etc.) for the purpose of direct exchange of relevant technologies, experience and information to address common development problems." A network must include the concept of membership which makes a tangible contribution to its programme of activities. An essential characteristic, which distinguishes networks from regional projects, is that they set out to maximize the use of indigenous expertise and resources available in the countries themselves and thus rely less on external inputs.

Effective networks do not operate in isolation. Depending on subject matter, geographic coverage and focal institutions, there are natural, "organic" areas where different networks converge. These present excellent areas of opportunity for collaboration, complementarity and synergism. "Overlap" and "duplication" are often used in a negative context, and probably justifiably so when various networking activities are not properly coordinated. However, organic areas of overlap and duplication can be used effectively to strengthen and reinforce common processes (e.g., training, inter-institutional mechanisms) supported by related networks. In the words of the late Dr. Y.S. Rao, former FAO Regional Forestry Officer and FORSPA Programme Advisor: "each regional network should occupy its own ground but should not cast a shadow on other networks."

Presently, there are eight FAO regional projects/networks operating in Asia-Pacific that have direct or indirect bearing on agroforestry. These are:

Acronym	Full Name	Secretariat Location
APAN	Asia-Pacific Agroforestry Network (GCP/RAS/133/JAP)	FRDC Bogor
FORSPA	Forestry Research Support Programme for Asia and the pacific (GCP/RAS/134/RAS)	FAO-RAPA Bangkok
FPPA	Forestry Planning and Policy Assistance in Asia and the Pacific Region (GCP/RAS/137/JAP)	FAO-RAPA Bangkok
FTPP	Forests, Trees and People Programme in Asia	RECOFTC Bangkok
IPMP	Improved Productivity of Man-made Forests (RAS/91/004)	ERDB Los Banos
RWEDP	Regional Wood Energy Development Programme in Asia (GCP/RAS/131/NET)	FAO-Rapa Bangkok
SPFDP	South Pacific Forestry Development Programme	Suva, Fiji
WMT	Watershed Management Training in Asia and the Pacific Region (GCP/RAS/129/NET)	Katmandu

The genesis of APAN can be traced to the 19th Regional Conference held in 1988, when Dr. Rao presented a paper on "Agroforestry for improved land husbandry" to the Ministers of Agriculture and Forestry present at the conference. The Ministers endorsed the development of a regional initiative in agroforestry because they felt it could address three sets of pressing problems: marginal lands and marginal people; shifting cultivation; and sustainable development.

2 RWEDP, FTPP, APAN: LIKE MINDED NETWORKS IN ASIA-PACIFIC

Some positive experiences to support individuals and institutions working in natural resource management in the Asia-Pacific region have emerged from networking activities supported by FAO and many other organizations. The following sections examine the ongoing efforts of three FAO-facilitated networks, to support, strengthen and collaborate on related activities and processes.

Regional Wood Energy Development Programme in Asia (RWEDP)
This is a regional cooperative project for the development of fuelwood resources to meet the energy needs of house hold and small scale processing enterprises. In the first 4-year phase a network of forestry and energy institutions (governmental and non-governmental) actively involved in wood

energy development was established. Training, information exchange and technical assistance in social forestry, tree production and energy conversion techniques were the main activities in the first phase. The second phase (1989-1993) focuses more attention to improved planning and intersectoral linkages. The project has followed an integrated approach for the development of wood energy production, processing, trade and use. Better integration of the socio-economic and technical dimensions of wood energy systems in policies and strategies has been emphasized. Also, ways to improve the linkages between these systems in the flow of wood from resources to end-use have been developed, documented and disseminated.

Forests, Trees and People Programme (FTPP)
This programme started in 1987, concentrated on the generation of relevant knowledge and the development of appropriate approaches and tools for the planning and implementation of community forestry activities. This has contributed to a better understanding of community forestry issues, as documented in over 30 Community Forestry Notes, Manuals and Case Studies. The present emphasis in this phase is on dissemination of new concepts and approaches, through information dissemination and training, as well as more intensive collaboration with other national and regional institutions such as RECOFTC, RWEDP and APAN. RECOFTC (Regional Community Forestry Training Centre) will assume many responsibilities for facilitating FTPP activities and information exchange in Asia.

Asia-Pacific Agroforestry Network (APAN)
This network was established in May 1991 by the FAO Regional Project on Agroforestry Systems Research and Development in Asia and Pacific Region (GCP/RAS/133/JPN). The first 20-month phase of APAN focuses on defining, then supporting priority agroforestry activities of its 10 member countries: Bangladesh, India, Indonesia, Lao PDR, Nepal, Pakistan, Philippines, Sri Lanka, Thailand and Vietnam. Four areas of support are being provided to strengthen: agroforestry coordination mechanisms; information exchange; training; and innovative field activities.

One of FAO's comparative advantages in network development is its intergovernmental nature. Because all the countries involved in the three networks described above are also FAO member countries, the sense of membership is reinforced, and network entry/participation protocols and procedures with individual governments are usually simple.

Given the many common objectives and interests, and the close professional relationships between staff of the RWEDP, FTPP and Apan Secretariat, many networking activities have been, are being, and will be carried out jointly, some with the support of other collaborating organizations such as ICRAF (International Centre for Research in Agroforestry). Some characteristics of networks are presented below:

Networking activities occur at many levels:

- global/interregional
- regional
- national
- provincial
- grassroots

They can employ common or different modalities at each level:

- working groups
- information/publication exchanges
- expert consultations
- training courses
- workshops/seminars
- farmer cross visits
- study tours
- support/documentation of innovative field activities

And they involve many types of participants:

- government research and extension agencies
- national and international NGOs
- universities
- local organizations
- farmer groups
- international support organizations

2.1 COLLABORATIVE APAN ACTIVITIES

Over the past two years, considerable efforts have been made to coordinate FTPP, RWEDP and APAN activities, and pinpoint specific areas for collaboration. The table on the following page shows some of the completed, ongoing or planned collaborative activities.

Collaborative APAN Activities

Location/ Time frame	Activity	Host Organizations	Participants	Collaborating Institutions/ Networks
Pune, India 24-27 Sept. 1991	International Workshop on the Role of NGOs in Promoting On-Farm Tree-Growing Technologies	BAIF Development Research Foundation	NGO leaders, scientists and government officials from India, Philippines, Sri Lanka and Thailand; international agencies	F/FRED IDRC RWEDP NFTA
Chiang Mai, Thailand 7-11 Oct. 1991	Regional Expert Consultation on Local Organizations in Forestry Extension in Asia	Chiang Mai University	More than 50 experts from 11 Asian countries and international organizations	RWEDP FTPP APAN NFTA F/FRED
West Java, Indonesia 26 Apr.- 9 May 1992	Refresher Course for Agroforestry Trainers in Asia-Pacific	Agency for Forestry Research and Development	22 Participants from government research and extension agencies, NGOs and universities in 10 Asia-Pacific countries	APAN ICRAF RWEDP F/FRED USDA-FS
E. & N. Thailand 2-12 July 1992	Lao-Thai Agroforestry Technology Exchange Visit	Thai Royal Forest Department	6 Lao forestry officials; Thai RFD HQ and field staff	APAN FAO-RAPA FTPP
Cebu, Philippines 4-10 Oct. 1992	Regional Expert Consultation on Farmer-to-Farmer Adaptive Agroforestry Research	Ecosystems Research and Development Bureau (ERDB); Mag-uugmad Foundation, Inc. (MFI)	37 participants from 8 countries representing GOs, NGOs, universities and international organizations	APAN FTPP
Forestry College Xuan Mai, Vietnam 29-31 Oct. 1992	National Agroforestry Seminar	Forestry College; Forest Science Institute of Vietnam	50 participants from Vietnamese agriculture and forestry institutions; selected international NGOs working in Vietnam	RWEDP APAN
Katmandu, Nepal 1-8 Nov. 1992	Second Project Advisory Committee (PAC) Meeting	HMG Ministry of Forests and Environment; FAO Representation	National Coordinators from APAN member countries; collaborating organizations	APAN RWEDP ICRAF
Ho Chi Minh City, Vietnam 15-21 Nov. 1992	Regional Expert Consultation on Participatory Agroforestry and Silvofishery Systems	Forest Research Institute of Vietnam	12 from Vietnam; 12 from other APAN countries and collaborators	APAN RWEDP ICRAF
Chiang Mai, Thailand 1-3 Dec. 1992	National Agroforestry Workshop	Royal Forest Department	40-50 participants from national GOs and NGOs; international organizations and NGOs; LAO colleagues	APAN FTPP ICRAF

2.2 NETWORK SUSTAINABILITY

The aforementioned FAO "guidelines" also stated that initiating a network "is a long-term endeavour requiring continuing support. There are as yet no examples of networks initiated by FAO which have become entirely self-financing." Therefore, in the long run, one possible pathway of ensuring network sustainability would be to locate a suitable institutional home; to integrate the network functions (and perhaps also structure) into an international or regional centre/organization/association with compatible mandate and operational philosophy. Network sustainability issues must be considered and acted upon by its membership early on in the network development process.

3 APAN STATUS

The following sections summarize APAN accomplishments during 1991-92, and also presents the tentative plans for an APAN Phase II.

3.1 APAN ACCOMPLISHMENTS 1991-1992

Activities	Dates
1. Coordination mechanisms for agroforestry R & D	
a. Convene two PAC Meetings	
• Bogor, Indonesia	November 1991
• Katmandu, Nepal	November 1992
b. National agroforestry seminars/workshops	
• Lao PDR	January 1992
• Indonesia	October 1992
• Vietnam	October 1992
• Thailand	December 1992
c. TCP proposal for LAO PDR national agroforestry action programme	approved in prin. by FAO July 1992

d. Linkages with existing agroforestry working groups: • Bangladesh Agroforestry Working Group • Nepal Fodder & Agroforestry Working Group • Philippine working groups (UDWG & UNAC)	on-going
2. Information and technology exchange	
a. Reprint 500 copies of Agroforestry in the Asia and Pacific for distribution	June 1991
b. Partial support for RWEDP publication of Chiang Mai report on local organizations	October 1992
c. APANews (periodic newsletter) - 3 issues	March, June, October 1992
d. Asia-Pacific Agroforestry Profiles (Field Document No. 1)	February 1992
e. APAN Reports on: • first PAC meeting • regional agroforestry training course • Lao-Thai AF information & technology exchange visit • Cebu Consultation on farmer-to-farmer AF research • Other planned meetings, workshops and consultations	December 1991 June 1992 October 1992 October 1992 on-going
f. Co-sponsorship of a national agroforestry workshop for rural workers organizations (IIM, Ahmedabad, India)	January 1992
g. Organization of Lao-Thai agroforestry information technology exchange visit	July 1992
h. Organization of expert consultation on farmer-to-farmer adaptive agroforestry research (Cebu, Philippines)	October 1992
i. Organization of regional expert consultation on participatory & silvofishery systems (Ho Chi Minh City, Vietnam)	November 1992
3. Agroforestry Training	
a. Organization of Refresher Course for Agroforestry Trainers in Asia-Pacific (Cisarua, Indonesia)	April/May 1992
b. Publication of a summary report of training course & a resource book on agroforestry training approaches in Asia-Pacific	summary report published June 1992; resource book early 1993
4. Innovative Field Activities	
a. Two agroforestry demonstration in West Java, Indonesia	to be established Nov./Dec. 1992
b. Documentation of agroforestry innovations by farmers in Asia-Pacific	on-going

A prominent area of APAN activities is in the establishment of agroforestry working groups, or the support of existing ones. The table on the next page provide a quick assessment of the status of agroforestry or related working groups in each of the APAN member countries. These groups are pivotal for fostering a positive interdisciplinary forum for coordinating agroforestry activities. In many countries, it is the APAN national Coordinator or Focal Institution who is responsible for the development of agroforestry working groups.

Country	Status of Agroforestry or Related Working Groups
Bangladesh	Bangladesh Agroforestry Working Group (coordinated by Bangladesh Agricultural Research Council)
India	National Joint Forest Management Support Groups (coordinated by Society for Promotion of Wasteland Development)
Nepal	Nepal Fodder and Agroforestry Working Group (coordinated by Forest Research Division)
Pakistan	Forest Extension Coordinators Network (informally facilitated by several organizations, e.g., Aga Khan Rural Support Programme)
Sri Lanka	None, in progress
Indonesia	Establishment of Agroforestry Working Group being considered; National Agroforestry Seminar held October 1992
Laos	Process of establishing Lao Agroforestry Working Group initiated by Department of Forestry and Environment; National Agroforestry Workshop held January 1992
Philippines	Upland Development Working Group (coordinated by Department of Environment and Natural Resources); Upland NGO Assistance Committee (coordinated by Philippines Upland Resource Centre)
Thailand	Thai Agroforestry Working Group (coordinated by Royal Forest Department); National Agroforestry Workshop held October 1992
Vietnam	Process of establishing Vietnam Agroforestry Working Group initiated by Forest Science Institute; National Agroforestry Workshop held October 1992

3.2 APAN PHASE II PLANS

Specific APAN activities in Phase II will focus on:

1. Coordination mechanisms: PAC meetings; national agroforestry working groups and workshops/seminars; national APAN secretariats.

2. Information services: APAnews; field documents and reports; commissioned studies; agroforestry databases (e.g., ICRAF MPTS database); regional and national documentation centres.

3. Training: training courses at regional and national levels; development of agroforestry training materials and curricula.

4. Innovative field activities: farmer-to-farmer research sites in ;the Philippines; agroforestry demonstrations in Indonesia; successful GO-NGO programmes; scaling-up pilot efforts.

Documentation for a four-year second phase have been completed and sent to prospective donors. It is hoped that APAN Phase II will be operational by April 1993. There are indications that APAN will work closely with the UNDP-supported Farmer-centred Agricultural Resource Management (FARM) Programme in Asia, which features agroforestry as one of its seven subprogrammes.

9. FORESTRY EXTENSION DEVELOPMENT: SOME PRINCIPLES, ISSUES AND IDEAS

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1 INTRODUCTION

Involving rural people in the management of forest and tree resources has been rising on the global forest policy agenda since the 1970s.

Social, agro-, and community forestry projects, programmes and their written spin-off have since then boomed, particularly in Asia. A comprehensive and detailed review of the experiences with these activities is impossible and probably undesirable for the purposes of this paper, and many exist already[1] (including the ones displayed during the workshop, than can be ordered free of charge).

The aspect on which we propose to focus is on the nature of the changes in forestry practices that are implied in the 'new forestries'. Some knowledgeable and experienced authors feel that nothing less than a 'paradigmatic change' is involved[2], the magnitude of which is illustrated on the right, by the differences between conventional and joint forest management in India.

From Conventional	To Joint Forest Mgmt
central mgmt	decentr. mgmt
revenue oriented	resource oriented
production motive	sustainability
single products	multiple products
large working plans	micro plans
target oriented	process oriented
unilateral decision	participatory
punitive roles	self abnegation
govt. department	peoples institute
homogeneity	diversity
single pre set obj.	many need based
area mgmt	site specific
timber	multiple products
single techn. pack.	menu of options
fixed procedures	experiment./flex.
plantations	regeneration
single species	multi species + tier

from: SFWP, 1993

Other authors feel that sketching the changes in such dramatic terms does not help much in clarifying the issues involved and that much of the time tested forestry strategies may well be valid, also if other objectives are to be achieved[3]. This demonstrates the need to define the type of change that is involved, in more accurate terms.

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[1] See the overview of documents presented in Annex I

[2] Gilmour, D.A. and R.J. Fisher. 1991. Villagers, Forest and Foresters: The Philosophy, Process and Practice of Community Forestry in Nepal. Sahayogi Press, Kathmandu

[3] Roach, L 1992. The Profession of Forestry Now and in the Year 2000. In: Commonwealth Forestry Review, 70 (1), p. 13-19

The title of this workshop seems to suggest that it is the use of extension that is new in forestry and promises that we may get a clearer idea of what is new, by focusing on this aspect. In the following we propose to investigate this promise by:

- reviewing what can be learned from experiences with extension in other rural resource disciplines, that have a much longer history and from which we may learn what it is, what it can do and what not, and how much we would be helped in forestry by learning from them, also in the planning and implementation or our social, community or agroforestry activities in the field, in the training of our staff and in the shaping of our organization.
- this is followed by a review of some of the experiences in social or community forestry development in Asia, and discussion of the actual and potential role of 'extension' (as earlier defined) in these activities.
- finally some ideas on strategies for forestry extension development will be presented, that are only summarily described in the paper, but discussed in some more detail during the presentation.

2 WHAT IS EXTENSION: LESSONS FROM AGRICULTURE AND OTHER RURAL RESOURCES

Roling, in the only publication I could find with the title 'Extension Science'[4] defines extension as "A professional communication intervention deployed by an institution to induce change in voluntary behaviours with a presumed public or collective utility." Such definitions are of little help, unless one takes a bit of time to ponder on the elements in it and their implications. Then it may become possible not only to better understand what extension can do, but also and particularly what it cannot do, and what it takes to let it do its best. The following is a crude summary of Roling's much more elegant discussion of this definition and its practical implications:

Professional intervention

Formulating objectives, designing and testing strategies, deploying resources, implementing and evaluating by people who are employed for the purpose. Now what about the farmer who advises his neighbour on a new crop variety over a cup of tea? Well we usually do not think or talk of that as extension (do we?), until somebody comes along and decides that farmer-to-farmer extension is a good idea. But then the farmers become volunteers or para-professionals[5], and are often supported by hired full time professionals (see also the later discussions on 'extension system management').

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[4] Roling, N. 1988. Extension Science, information Systems in Agricultural Development. Cambridge University Press

[5] See the example of Mag-ugmaad Foundation in the Philippines and the Nepal Agro-Forestry Foundation in Nepal. In: APAN. 1992. Summary Report of the Regional Expert Consultation on farmer-to-farmer adaptive Agro-Forestry research

Communication based
The instrument used for inducing change is communication. There are many other instruments that may induce such change: subsidies or legal coercion or regulations. Extension is a communication intervention just as advertising, public relations, adult education, or political propaganda. But it differs from these processes in terms of objectives and target processes. It must be emphasized that a communication intervention aims at changing people not things.

Voluntary change
The impact of communication is limited to voluntary change (unless one has other derived sources of power to coerce people into compliance). Extension is not an instrument which can force people to do things against their will, however much one would like to do so.

How do I get them where I want them?

The original question in extension science and the one with which every student of extension starts all over again is: "How do I get them where I want them?" One recognizes those who have not gone far in extension studies, whether because they have just started or because they have never got anywhere, by the fact that they ask this question.

(Roling, 1988, p. 22)

Another implication of the necessary reliance on voluntary change is that extension alone is often not enough to induce change. Unless prices, markets, legal arrangements, etc. are right such change may not be expected. Also and particularly for forestry this is a crucial aspect as we shall elaborate later.

Objectives
Many definitions mention that extension aims at transferring information, knowledge or technology or at the promotion of utilization of the same. As indicated earlier this would lump extension with public relations, and marketing. The difference is to be found at societal rather than individual level. Rather than increasing one's share of the market (as in advertising) or enhancing the reputation of one's company (as in PR), the focus of extension is on presumed public or collective utilities.

Institution
Extension is usually deployed by an institution. It requires money, and the fact that institutions are involved introduces an organizational element. As extension is an instrument to induce voluntary change, this requires special organizational and management arrangements.

The above set of elements contains an important contradiction, not a logical one but a practical one, that needs to be addressed and dealt with in the planning and implementation of extension activities: that extension is an intervention which can be effective only through inducing voluntary change necessitates careful maneuvering between using extension as a policy

instrument and as a client service. If one overdoes the policy instrument side of extension, one introduces change to no effect. If one overdoes the client service side one can be effective but often does not achieve the desired change.

How one deals with this contradiction depends on the similarity or overlap between these objectives. It points at the need for the intervening agency to identify these, and to a role of extension that is often overlooked: to ensure a flow of information from and about the target clients to the intervening party.

With regard to the identification of client problems as a task for extension, it can help the client in becoming aware of symptoms of problems, in formulating the problem, in identifying the causes (diagnoses), in generating alternative solutions, and in choosing and implementing one. And extension can finally help in evaluating results.

In general terms the above description points at the heart of extension: the analysis of the determinants of voluntary behaviour precedes the production of messages and the deployment of methods.

2.1 INSTITUTIONAL ASPECTS

Citing our favourite author once more: "The evidence from across the globe is similar: wherever rural low-access categories have been effectively reached, it has been on the basis of a specific kind of intervention, often carried by a Non-Government Organization (NGO), which focuses on the creation of small organizations of rural people which function to provide services directly, to pull down services from government technical agencies, and to link small producers to formal agricultural information systems"...."The basic lesson in country after country is that effective intervention requires:

> -effective intervention power of development change agencies, but also;
> -an effective 'countervailing power' by target clients." (Roling 1988, p 150).

Intermediate parties are needed and hence a tripartite arrangement needs to be developed in which the following parties are involved: 1. rural people and their organizations, 2. technical agencies and 3. some intermediate party.

Such intermediate organizations can contribute to planning and goal setting, conflict management, resource management, provision of services, integration of services, control over bureaucracy and claim making.

The creation of 'effective demand' on government agencies makes them more effective. Increasing countervailing power of utilizer constituencies and

thereby improving the balance between 'apparatus and network' is one sure way of improving the output of the whole system.

This leads to the 'five essentials' for making such tripartite arrangements work: mobilization of all three parties, of the outsiders in analysis of the local situation and of the rural people in informing them of the options regarding outside interventions; organization, in which the community decides on some form of organization to support the innovation; training of local cadres who can play technical roles for its utilization; technical support in the form of assistance of an external apparatus with the resources ant technology to make the innovation work. The fifth essential is the one of system management: to install the mix of four functions described above, maintain the balance the apparatus and the network, and ensure a self-sustaining system, it is here where the intermediate organization plays a crucial role.

The Five Essentials for Effective Extension

1. MOBILIZATION
   Analysis & Information
2. LOCAL SUPPORT
   ORGANIZATION
3. TRAINING of LOCAL
   CADRES
4. External TECHNICAL
   SUPPORT
5. SYSTEM MANAGEMENT
   (intermediate organization)

Another important institutional aspect refers to the relationships between extension and policies, as earlier stated extension is very much a 'two-way' policy instrument, implying that its objectives are guided by more general objectives set at policy level. As demonstrated below, one has to keep the hierarchy of objectives in mind in the planning and implementation of extension activities. The ultimate objectives are those to which extension may contribute, but for which many other conditions and/or activities need to be undertaken as well. The intervention objectives are the ones which the extension intervention is supposed to achieve as a direct result of its own effort. For extension these objectives are to be phrased in terms of changing some voluntary behaviour which is seen as the cause of the problem. Here caution is warranted, and often analysis required: E.g. non-adoption of an innovation may be (and often has been) falsely attributed to a behavioral issue, rather than to inappropriateness of the technology, or inadequate access to resources, or prices, etc. The conditions for effect are those which must be satisfied to

Hierarchy of Extension Objectives

ULTIMATE OBJECTIVES
(from analysis of societal problem)
INTERVENTION OBJECTIVES
(based on analysis of causes)
CONDITIONS for EFFECT
(based on determinants of voluntary behavior)
ACTIVITIES
(programming, implementation)
MEANS
(resources,management, organization)

(Roling, 1988, p. 60)

affect the voluntary behaviour in a manner that the causes of the problems as identified earlier are addressed. Activities are the usual extension activities, that often receive much attention and often much more than the analysis at 'higher' levels in the hierarchy. And this may even more apply to the lowest level, the means: staff houses, organizational change of a cosmetic nature, etc. are often easier to effectuate with more visible effects than 'analysis of societal problems'. Using he above concepts for the clarification of social, community or agroforestry activities, the following points emerge:

-the need for a clear definition of what the 'professional intervention' part in community etc. forestry is, and what the role of the rural managers. E.g. when we speak of 'agroforestry systems' do we mean theirs or ours? Or: if the community does the forestry, what do the foresters do? What is the role of the professional and what means are available for 'intervention'?

-also in view of the great degree of overlap between extension and social etc. forestry, it may be beneficial to perceive extension as the core of these activities, so to be able to more clearly communicate in our organizations what it is that we are dealing with. But also so as to be able to more clearly plan and implement our activities based on a clearer awareness of the need for proper understanding and analysis of 'the problem in its local context', and what we foresters can do about that, as a prerequisite for the planning and implementation of our support activities. And thereby also identify what the other prerequisites for voluntary change are, i.e. conditions that cannot be changed by communication.

The following brief overview of the evolution of social forestry in Asia may illustrate that we are indeed moving in the direction sketched above, including the 'five essentials' as presented above.

3 SOCIAL FORESTRY IN ASIA

In the following we present a simplified sketch of the evolution of social forestry in Asia, in which we suggest that the change in perception of the problem, has contributed to changes in intervention objectives, and in new ideas of the required conditions that need to be in place to achieve the desired effects[6]. This is now in many programmes leading to a change in activities for which other means are required than in the first (1970s-1980s) generation programmes.

[6] See for a more solid account Arnold, J.E.M. 1991. Community Forestry, Ten Years in Review. FAO Rome

It will be shown that there is indeed an increasing 'extension content' discernible in many social and agroforestry programmes, in which particularly the capacities to analyze the local interactions between rural people and their natural resources are being developed. This forms the basis for better informed assistance to rural people planning for the management of their natural resources. In which it is increasingly recognized that the full range of resources used in a particular situation needs to be considered, in non-forest lands the niches for trees in the agro-ecosystem need to be identified, and in forests the importance on -improved management for- non-timber products is increasingly realized.

3.1 SOCIAL FORESTRY AS A RESPONSE TO THE FUEL WOOD CRISIS; TREE PLANTING OUTSIDE THE FORESTS

The energy crisis in the early seventies and the drought in the Sahel did much to attract (international) public attention to forestry, leading to an increase in the resources available for new forestry activities. The problem seemed to be obvious: lack of fuel wood, and other subsistence produce form forest areas, forcing people to cut the las trees, contributing to further environmental degradation (such as drought and floods) and thereby leading to one of the many vicious cycles that poor rural people seem to have a tendency to keep on being trapped in... why else would they be so poor. Obvious problems have obvious solutions: If there is a lack of trees, plant more.

Initial Social Forestry Programmes

PROBLEM: Forest and other land degradation because people lack fuelwood and other subsistence products.

INTERVENTION OBJECTIVES: Plant more and faster growing trees.

CONDITIONS for EFFECT: Availability of more fuelwood and reduction of use.

ACTIVITIES: Nurseries, Plantation Establishment in Forest and Non-forest lands. Seedling and stove distribution, propaganda and publicity.

MEANS: International Funds, Expansion of Forest Department

Accordingly most social forestry projects of the 'first generation' (and in some cases in quite a few generations after that) emphasized seedling production and planting of fast growing trees in rural areas[7].

According to some calculations the total reported production of seedlings in all social forestry projects in India would have been enough to plant the whole country... more than once. Also in other countries it was found that in reality such replanting often proved to be necessary, as protection (or more general management) received less attention than planting. The bulk of these

[7] See Shingi, P.M., Patel, M.S. & Wadwalkar, S. 1986. Development of Social Forestry in India. IIMA

plantations were established according to time tested forest establishment techniques, and institutional arrangements. Targets for areas to be planted were seldom as ambitious as the 5 millions acres per year that were mentioned until recently in India, but they often left little time to 'analyze the societal problem'.

In addition, seedlings were often provided free of charge or at heavily subsidized cost to villagers, including larger and medium farmers who recognize an interesting cash crop when they see one. Those who saw it first benefited much, whereas the 'pig cycle' hit the farmers who brought their Eucalyptus poles and pulpwood on the market at the same time everybody else did.

Extension had a very limited role, public relations (posters, tree planting campaigns etc.) and propaganda were often much better represented in these strategies.

One Reviewer's Assessment of the Results of Social Forestry 1980-1990

1. Trees came up where not needed
2. Farmers disillusioned
3. Forest lands starved for funds
4. Village lands still degraded
5. Pressure on forest lands unabated
6. Complementary agroforestry models lacking

(Saxena, 1993)

With the benefit of hindsight it is now easy to be critical of the (simplified representation) of a simplistic analysis of a rather complex set of problems. This may however not prevent us form recognizing the great importance and the major achievements (whatever the failures may have been) that were produced by people who worked under very difficult and often unfamiliar conditions. These achievements point at the great potential and efficiency of those departments that achieved them: the Forest Departments.

Another major achievement of the first generation social forestry projects is the opportunity they provided for a profession and their institutions to learn the rules of a new game: forestry for rural development. As we'll discuss in the presentation of our 'present generation social forestry projects' the initial experiences have in many cases contributed to a considerable growth of a sound body of understanding and practices the benefits of which are being reaped right now.

3.2 AGRO-AND FARM FORESTRY

The problems of land degradation outside forest lands, and production of tree produce were also addressed by the proponents of a more integrated land resource management strategy emerging in the 1970s under the label of agroforestry. The establishment of the International Council for Research in Agroforestry (ICRAF) provided an institutional basis for an approach to

applied research and extension in land development, that was adapted from the Farming Systems Research and Development Approach prevailing at many of the international agricultural research institutions in CGIAR system: Agroforestry Diagnosis and Design. One of the problems with this approach (as also experienced in other CGIAR institutions) is that such interdisciplinary approaches are difficult to institutionalize in national research networks. In agroforestry this is compounded by the need to involve both forestry and agricultural institutions.

OBJECTIVE: improve marginal land use & improve farm incomes

INTERVENTION OBJECTIVES: develop and introduce farming systems with trees

CONDITIONS for EFFECT: land tenure security, minimize competition/maximize synergy

ACTIVITIES: research & extension, markets, inputs/ seedlings

MEANS: NGOs and research extension ???

One contribution resulting from the initial activities in agroforestry is the rediscovery of tree management practices and traditions by farmers ranging from complex agro-ecosystems with a tree component such as homegardens in the humid tropical lowlands, to farm forestry practices such as the hurries in Pakistan.

To support development and expansion of such systems, strategies vary and range from on-station 'component research', on farm adaptive research, classical extension approaches, the provision of improved germplasm or seedlings of preferred species, and farmer-based extension strategies.

In many cases, agroforestry type of activities are a component in the strategies discussed earlier.

It seems that in farm and agroforestry, more than in other strategies, there is a need to improve the research support for extension programmes. In view of the complexity of such systems this type of research may require different approaches from the prevailing ones and involve farmers[8] Marketing of farm and agroforestry produce is another crucial dimension.

3.3 SOCIAL FORESTRY AS STABILIZATION OF SHIFTING CULTIVATION AND CONTAINMENT OF ENCROACHMENT

Another set of social forestry activities attempts to address the problem of the millions of rural people living in forest lands. In the Philippines estimates of people living in the forest areas range form 6 to over 10 million[9] (20% of the population) in Thailand similar numbers are mentioned.

[8] See Raintree, J.B. & M.W. Hoskins. 1988. Appropriate R&D support for Forestry Extension. In: FAO-RWEDP. 1988. Planning Forestry Extension Programme in Asia. Bangkok

[9] Cruz, W. and Cruz, C. Information requirments for assessing upland population pressure and evaluating conservation programmes

Though the absolute or proportional numbers may be smaller elsewhere, it is a common problem in Asia, often inaccurately referred to as the problem of shifting (or as some would prefer to say: the shifted) cultivators. In many countries in Asia, action is now taken to address this situation, in which the core of the activities is some form of legalization of the control over the land resources. In Thailand, the Philippines, and Vietnam rural households receive the usufructuary rights on pieces of forest land, of a period between 20 and 60 years. Often there are certain conditions farmers have to comply with, such as the duty to keep a certain part of the farm under trees.

In other countries such as Bangladesh and Indonesia, shorter term contracts are offered to families allowing a specified part of the produce.

Though this type of 'restricted land reform' may involve large areas such as the over 5 million ha. of forest lands that have thus been 'handed over' in Vietnam in 5 years, the processes involved often take a long time, and in countries like the Philippines and Thailand the pace is such that it will take well into the next century to settle the issue. Extension support is often important in these cases, both in the local planning activities such as in the survey of the land and in the follow up support for the development of the production system, including soil and water conservation activities. At pilot scale there is increasing attention to the support of development of local organizations.

People in Forests

PROBLEM: Illegal settlers with nowhere else to move

INTERVENTION OBJECTIVE: to stop them moving on and around, or others from moving in

CONDITIONS: legalize access to defined part of the resources

ACTIVITIES: identify people and resources, process documents, provide technical advice and monitoring

MEANS: stewardship certificates & other contracts

The problems in 'analysis of societal problems' in such cases have been best expressed by the King of Thailand in his oft (but never often enough) quoted address to recently graduated lawyers in 1973: "it seems rather odd for us to enforce the reserved forest law on people in the forest which became reserved only subsequently by the mere drawing of lines on pieces of paper. The problem arises inasmuch as with the delineation done, these people became violators of the law. From the point of view of law it is violation because the law was duly enacted. But according to natural law the violator is the one who drew the lines, because people possess the right to live. Thus it is the authorities who encroached upon the rights of individuals and not the individuals who transgressed the law..."(quoted from: Rao, 1992).

Particularly cultural minorities practicing resource management strategies that differ considerably form the rigid agricultural practices in the valleys where the majority lives, could benefit much from a better informed 'analysis of the societal problem' at hand.

3.4 FOREST RESOURCE MANAGEMENT PARTNERSHIPS AND COMMUNITY MANAGEMENT

The nationalization of forest lands in Nepal in the 1950s was in the 1970s found not to have had the effects that were expected. If anything it was found that it may have had the opposite effect, and there are indications that locally it contributed to accelerated degradation of forest resources[10]

In the initial attempts to hand back the control over forest areas in the hills of Nepal to the local government authorities (the panchayats), problems were experienced in the implementation of the management plans that were drawn up at the time of handing over. Also, the preparation of such plans according to the best forest management traditions proved cumbersome and often unduly sophisticated. Resulting delays were compounded by the paperwork involved and the communication problems in the type of terrain prevailing in Nepal.

Community or Joint Management
OBJECTIVE: arrest degradation of forest lands & rural poverty alleviation
INTERVENTION OBJECTIVES: give rural neighbors/inhabitants of forests a stake in their preservation
CONDITIONS for EFFECT: ensure controlled access to benefits and local capacity to organize management
ACTIVITIES: legal change, pilot projects, identification of sites, community forestry extension
MEANS: universities, foreign funding (?), NGOs

In many of the (well funded, foreign assisted) community forestry pilot projects it was found that less formal approaches and particularly the recognition of the informal local technical and institutional arrangements, could be more effective. Hence, arrangements have been developed in which the roles between the various stakeholder are clearly identified: the government remains the owner of the forest land, the users are the managers, the local authority (village council) acts as the steward, and the Forest Department as the adviser to all parties.

This is complemented (particularly in the pilot projects) by a local planning procedure, in which the users of a particular patch of forest are identified, their uses and the rules they follow investigated, the various management options discussed and negotiated. This forms the basis for a simple operational management plan, with which users agree, the local authorities are informed of and the DFO sanctions.

[10] Banko Janakari: A journal of Forestry Information for Nepal, Vol I No. 4, Community Forestry Managment. 1987. Kathmandu

Similar approaches are being pursued in the Indian Joint Forest Management Programme, in which experiences in states like West Bengal have inspired the national and 11 other state governments to encourage the Forest Department to involve local villagers in the management of existing (degraded) forest areas allowing them specific parts of the produce of these lands for their benefit[11].

Extension activities in this type of approach are crucial, in the identification of users, usage patterns, and rules to which the users adhere, as these form the basis for the management plan. Also in the design and implementation of such plans various forms of extension support are required. Increasingly the need for such support in the processing and marketing of the produce is also recognized.

New solutions (such as these management schemes) also bring new problems: the legal status and authority of many of such users groups or forest protection committees is uncertain, equitable distribution of benefits is hard to achieve, and the ecological principles and techniques in managing such multi-species forests for a variety of produce are often unknown.

3.5 DISCUSSION.....OR WHAT'S IN A NAME

The above sketch of various social forestry situations demonstrates a number of issues:

1. There is in all Asian countries a growing awareness that a few thousand professionals cannot effectively control land areas of millions of hectares, on which many more millions of rural people depend. There is simply not enough power around, and therefore the increased use of non-coercive strategies is not a matter of preference, but of lack of viable alternatives.

2. Increasingly it is realized that the core of community or social forestry is 'extension'. In terms of 'essentials': extension is the first essential in community or social forestry. However, in view of the specific history of forest policies, there are many legal, and administrative constraints that need to be alleviated to enable extension to become effective.

If we prefer to continue to use terms such as community forestry to express the awareness of the need to combine alleviation of these constraints with our extension activities, then that may be justified. It is however difficult to see how such terms could be justified in trying to express that social forestry is somehow different form extension. It is important both for ourselves, for our

[11] SPWD. 1993. Joint Forest Management: Concept of Opportunities, Proceedings of the National Workshop at Surajkund, August 1992. New Delhi

clients and for our colleagues working in the same villages on other rural resources, to clarify this matter.

For ourselves so that we may find it easier to learn from them and form alliances with them, and for them and for the villagers to better inform them of what they can expect from us.

3. Another issue, also raised in our discussion of extension in general and emerging from the more successful community forestry programmes in Asia, is the great need for more attention to the 'top of the hierarchy of our extension objectives'. Both at national (policy) level, at programme management and at the level of forests, forest patches and village communities.
As the initial efforts in social forestry have demonstrated, we urgently need better understanding of the interactions between villagers and their natural resources as a basis for planning and implementation. We do need much better information that allows us to select priority areas at programme level, and as a knowledge base for the integration of new experiences, for monitoring and evaluation of what we learn in villages and forests.

We do need concepts, methods, techniques and organizational principles for such analysis, and we do need to consider a much wider range of issues in such analysis than we used to do in our more conventional forestry approaches.

If Rapid Rural Appraisal, Participatory Rural Appraisal, Microplanning and similar approaches can avoid the pitfalls of the fads and fashion modes that seen to plague rural development efforts more than other human endeavors, then the institutionalization of these approaches should receive first priority in the development of extension capabilities in our regular implementation and training programmes[12]

4. This could indeed take care of the most important part of the first of the five essentials for effective extension.... but what about the other four?

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[12] We are not entirely impartial in making this recommendation: FAO has supported two six-weeks international training courses on Rapid Rural Appraisal. For the report on the first course, see FAO-RWEDP. 1992. Wood Fuel Flows. Rapid Rural Appraisal in Far Asian Countries. Participants in the course held in October-November 1992, are presently in the process of doing their fieldwork as part of the training. Their reports will be published later this year. The training material developed at Khon Kaen University, is presently being compiled and expected to be published next year.
For experiences with these methodologies in community forestry planning see also: SFWP. 1992. Diagnostic Tools for Supporting joint Forest Management Systems, JFM Field Methods Manual, No. 1 and Field Manual No. 2, Community Forestry Economy and use Patterns: Participatory Rural Appraisal (PRA) Methods in South Gujrat (India).
For an overview of principles and applications of PRA in a wide range rural resource settings, see Grandstaff, T.B. & Messerschmidt D.A. (in press). Manager's Guide to the use of Rapid Rural Appraisal. FAO, Rome

4 DEVELOPMENT OF FORESTRY EXTENSION: HOW?

In the learning process approach[13], three phases in the development of organizational capacities are distinguished, in which new participatory approaches are developed and tested in a few communities. During this process the agency learns how to adapt its operational procedures and rules and regulations in such a manner that budget and human resources are efficiently allocated to such new activities.

In the last stage both the new field level approaches and the new administrative procedures are introduced to other staff in the agency.

A simplified model for Agency Change

PHASE I:
- learning to be more effective through action research, in small number of communities: new approaches for planning and implementation

PHASE II:
- learning to support and integrate these in organizational and administrative procedures

PHASE III:
- expansion: introducing new approaches and procedures to other staff

In the case of the social forestry development programme in Southeast Asia it was found that small working groups comprising concerned agency staff and outside resource persons could be most effective in guiding the learning process... if the right persons were selected by a 'facilitator' (see also the earlier observations on the need for an intermediate agent, in the general extension presentation).
The importance of such an intermediate, was also illustrated in Southeast Asia (Philippines, Thailand and Indonesia) in that the choice of the 'insiders' is just as important as that of the 'outsiders'.

The insiders (people working in the Forest Department) must be risk-takers, but also be respected as knowledgeable, loyal members of their agency. They are the ones who best understand their agency, its problems and how ideas for improvement can be incorporated into existing procedures and policies.

The 'outsiders' are usually people form universities and NGOs with relevant expertise and experience as well as interest in participation in the working group.

Though working group members may all be experienced, it was found to be absolutely essential that the group establishes regular communication with the field, and finds ways to learn form villagers and field staff.

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13 From the description in Poffenberger, M. 1990. Facilitating change in forestry bureaucracies. In: Poffenberger, M. (ed) 1990. Keepers of the Forest. Land Management Alternatives in Southeast Asia. Kumarian Press. West Harford

The following strategies have proven to be effective:

-fielding diagnostic research teams, including case studies of management problems;
-routine review of field reports, including process documentation, from the pilot projects;
-involvement of field staff in working group meetings; and bringing senior members into the field to talk with local staff and community members.

In moving through the Phases from diagnostic research to pilots to expansion, the importance of proper management of the expansion by the working group has become apparent. There was often considerable pressure form senior management to move 'too fast', e.g. to expansion before approaches at field level had matured sufficiently. Crucial elements in the expansion are the careful selection of field staff and the adaptation of field staff training through the change of curricula of technical training institutes.

Also criteria for hiring staff may need to be adapted, in many cases women need to be hired, and/or people with a non-forestry background. If these do not have any career prospects in the agency it may be hard to keep the good ones. Similarly new staff roles need to be formalized in job descriptions, new criteria for promotion applied, etc.

In the management of the expansion form pilot activities it was found to be important to coordinate the rate of policy change with the capacity to implement. If a program moves too quick, the quality of management may be affected, if it moves too slow, the program may lose momentum.

ANNEX: Selected references Community Forestry (in Asia)

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10. CLOSING STATEMENT

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Your Excellency Minister, Mr. Secretary, Distinguished Guests, Participants, Colleagues and Friends.

It is a great pleasure for me to be back in Pakistan and in NWFP in particular.

Though I am speaking here on behalf of my present employer the UN FAO, I request your indulgence in expressing satisfaction arising from activities in my former job, when I was still with the Ministry of Foreign Affairs of the Netherlands.

It was in that capacity that I got impressed by the initiative at professional renewal undertaken by foresters in Pakistan, and had the pleasure of being associated with the arrangement that ultimately led to support activities such as the Malakand Social Forestry Project.

I may have changed jobs, but I have definitely not changed interest. It is therefore not just the involvement of the Malakand Social Forestry Project in this workshop that contributes to the satisfaction that I earlier referred to, it is particularly the active participation of so many of the best that Pakistan Forestry has to offer, including its senior officials, in this workshop that I note with great appreciation.
This confirms the impression we had, now almost a decade ago, that the commitment to change, not for change's sake, but as a professional duty, is indeed taken seriously in forestry in Pakistan. It is this type of commitment that induces other people's commitment, as expressed in the various types of international support and cooperation in which Pakistan's foresters participate, including FAO's Regional Forestry Programme being present here.

We foresters, as applied ecologists, know that systems at whatever level of integration, are not going to survive unless they adapt to the changes in their environment. The good old forest management principle and practices and particularly its institutional arrangements were developed at a time when not only the political situation was different, but particularly our rural neighbours also lived in different conditions. Now, with the type of population pressure on the forest resources as we experience them in many areas in Asia, including Pakistan, we have to adapt to these changing conditions. We need the rural neighbours of the forest as our partners in its protection and development, as much as the rural neighbours need our support in their quest for a decent standard of living.

I take it that your participation in this workshop may be seen as a token of agreement with this general principle. Reading some of the papers presented earlier, made me aware however that translating such laudable principles in effective practices is indeed a challenge. A challenge that can be defined in meetings such as this workshop, and in which partial answers can be exchanged as well. We have developed a common understanding and a common language when addressing issues of people's participation in forestry. As such I was pleased to note that extension is not considered by this workshop an objective in itself but a tool to achieve the dual objective of reducing poverty and improve the sustainable use of the community's resources.

But as the experiences from our colleagues working in other rural development areas demonstrate, meeting this type of challenge is not a matter of one meeting, its requires a long term institutional learning process, in which as many different type of agencies and persons should be involved as possible and feasible.

Hence the initiative of creating some sort of forestry extension development forum as discussed in this meeting, is of great significance. We, working in the United Nations are particularly well placed to warn you of dangers of "Yet another committee", which is so often the preferred medium for deferring painful decisions. We also know that this risk is always present, and cannot be ruled out in forestry extension development either.

However, as I earlier indicated, "commitment generates commitment". The composition and the intended activities of such a working group should indeed demonstrate a serious commitment to change. If a serious effort were made to allow such working group to run its course as a vehicle for institutionalizing field tested participatory approaches in the operations of relevant agencies, I am confident that then commitment to support may be counted on.

Obviously I am not in the position to promise such commitment from the side of FAO, at this stage. However, we have earlier demonstrated our interest in this development, also through our support to this workshop on the invitation from the Government of Pakistan. So let me just say that we are very grateful for this opportunity and that we do look forward for invitations for future cooperation. The promise and commitment that I can make here also on behalf of my colleagues from sister regional projects in FAO present here, is that such invitations will be accorded the highest priority in our decision to allocate our limited resources.

One more remark on follow up, I think this workshop rightly emphasized sustainability at village level. However I am pleased to see here representatives of the Federal Government, the senior advisor to the Forestry master plan process and representatives of a number of donor agencies. I hope and expect that the result of this workshop through their institutions can leave an impact also on national policies and budget allocating. Shortly, decisions will be made on three major policy documents impacting on forestry, the 8th 5 year plan, NCS and FMP. These can be mechanisms through which the results of this workshop can have policy and institutional sustainability.

On behalf of FAO I wish to thank you all for your participation, I wish to congratulate the organizers for organizing this workshop and thank them for giving us the opportunity to be associated with it, and we look very much forward to meet you all again in the follow up activities to implement the recommendations of this workshop.

Thank you