

FORESTRY PLANNING & DEVELOPMENT PROJECT

CONTRACT NO.391-0481-00-C-5021-00

WORK PLAN

TECHNICAL ASSISTANCE TEAM

JANUARY - JUNE, 1987

GOVERNMENT OF PAKISTAN

US AID

WINROCK INTERNATIONAL

Islamabad, Pakistan

March, 1987

WORK PLAN OF THE TECHNICAL ASSISTANCE TEAM
FOR THE PERIOD 1 JANUARY TO 30 JUNE 1987

INTRODUCTION

This Work Plan for the Technical Assistance Team is prepared in compliance with paragraph D-3, page C-15 of the contract between the United States Agency for International Development and the Winrock International Institute for Agricultural Development (# 391 -00-0481-00-C-5021-00) which provides for Technical Assistance to the Government of Pakistan for implementing the Forestry Planning and Development Project.

This Work Plan has two sections:

Section I consists of a list of the Tangible Outputs proposed for accomplishment during the Work Plan period and a listing of the tasks which will result in the Tangible Outputs listed.

The Tangible Outputs are separated according to the major headings used in the contract to define the work of the project.

The listing of tasks is divided into four major work divisions each of which are the responsibility of one or more members of the long-term Technical Assistance Team (TAT). The divisions are represented by letters. The divisions and responsible staff members are:

- | | |
|-------------------------------|---------------------|
| A - Administration and Policy | - H. Eugene Ostmark |
| B - Outreach/Training | - William J. Hart |
| C - Anthropology/Sociology | - Michael R. Dove |
| | Jamil A. Qureshi |
| D - Research | - Kenneth L. McNabb |

The task designations within each division are further divided by priority represented by Roman numerals where I is rated more important than III. The final digit of the task identifier is simply a serial number within the priority. Thus, a group of tasks shown serially under B-I represent top priorities in Outreach/Training during the plan period.

This numbering system is designed not only to list the tasks, but to assist each staff member keep priorities straight and eliminate oversights.

The reporting system has been designed to show monthly tangible results in a way that eliminates lengthy reporting.

Section II consists of the goals set for the eight-year Project period. The statements and organization are taken directly from the Contract document (Section C, Paragraph IIA, Clauses 1 through 4).

SECTION I: TANGIBLE OUTPUTS AND TASKS

Proposed Tangible Outputs - 1 January to 30 June 1987

	<u>Category/Output</u>	<u>Staff</u>	<u>Date</u>
1.	<u>Planning, Policy, Program, Budget</u>		
a.	Policy working paper	Ostmark/Briscoe	Jun
	Comprehensive Training Plan	Hart	Apr
b.	Farm energy working paper	Ostmark/Briscoe	Jun
c.	Systematic planning/budgeting		
	Conduct Division level wrkshps I	Hart	Feb
	Conduct Division level wrkshps II	Hart	Jun
	Issue Work Plan Manual	Hart	Apr
e.	Installation of computers	Hart/McNabb	May
	Orientation workshop	Hart	Apr
	Operator training I	Hart	Jun
	System analysis contract	Hart	Apr
2.	<u>Farm and Energy Forestry Research</u>		
a.	Development of research program		
	Revised research policy	McNabb	Jun
	Research review committee mtg I	McNabb	Feb
	Research review committee mts II	McNabb	Apr
	Task order for <i>Leucaena</i> seminar	McNabb	Apr
	Task order for <i>Prospis</i> seminar	McNabb	May
	Technical support program working paper	McNabb	Jun
	Research report on effect of climate on forestry	McNabb	May
3.	<u>Farm Forestry Field Operations</u>		
a.	Effective Forest Dept organization		
	Training for project Foresters	Hart	Apr
	Training manual	Hart	Apr
	Task order for comparative organization study	Hart	May
	IGF/Project Directors meeting	Ostmark	Apr
	IGF/Project Directors meeting	Ostmark	Jun
b.	Sociological/anthropological assessments		
	41 village, 11 district, and 3		

	Provincial reports on the response of farmers to the project	Dove/Qureshi	Apr
	Research report on human ecological context of farm forestry	Dove/Qureshi	Apr
	Research report on farmer interest in planting trees	Dove/Qureshi	Jun
	Livestock and agroforestry paper	Dove	Apr
	Motivator working paper	Dove/Hart	Apr
	Private nursery FAR	Ostmark/McNabb	Jun
	Teach sociology segment, PFI	Dove/Qureshi	May
	Task order for Sind Baseline	Dove	Jun
g.	M.Sc. Forestry farm & energy specialization		
	Book order list	Hart	Mar
	Short term faculty training schedule	Hart	Jun
	Sociology, Public Administration, Extension syllabus	Hart	Jan
	Revised sociology syllabi for B.Sc. and M.Sc. curricula	Dove	May
j.	Technical training for farmers and foresters		
	Train 40 motivators	Hart	Jun
	Instruction in use of data on farmer interest in project	Dove/Qureshi	Jun
k.	First Asia Farm Forestry tour	Hart	Jun
l.	Report of Inter-Provincial Farm Forestry Tour	Hart	May
4.	<u>General</u>		
a.	Commodities		
	Table of equipment for schools	Hart	Jun
	Table of equipment for field	Hart	Jun

H. EUGENE OSTMARK: Chief-of-Party and Senior Farm and Energy Advisor

Priority I

- A-I-1 Coordinate activities of the contractor's home office, U.S.AID, Pakistan team members, and the Government of Pakistan.
- A-I-2 Supervise the professional work of all long-term and short-term Technical Assistance Staff in Pakistan.
- A-I-3 Assist Government of Pakistan officers implement all aspects of the project.
Work with the Inspector General of Forests, Director General of PFI, Provincial Secretaries, Chief Conservators of Forests, and other Federal and Provincial officials on all aspects of project planning, implementation, and management.
- A-I-4 Analyze policies and recommend changes, as necessary.
Work toward the establishment of a Government of Pakistan forestry policy aimed at 1) meeting energy requirements by growing trees on private lands, 2) reducing the quantity of imported wood and fuel oil, and 3) reversing the drain on Government forests by raising trees on private lands.
- A-I-5 Monitor and evaluate project progress and recommend modifications as necessary.

Priority II

- A-II-1 Prepare a series of manuals.
Oversee the preparation of a series of manuals designed to: assist in establishing nurseries, expand the practice of silviculture of semi-arid lands, establish the socio-economic background for planning private nurseries and farm forestry programs, guide the conduct of workshops and training programs, conserve soil, prepare land for planting, and improve irrigation efficiency.
- A-II-2 Oversee and contribute to the development of a comprehensive farm and energy forestry research program.
- A-II-3 Oversee and coordinate all logistic arrangements for short-term consultants.
- A-II-4 Support coordination of forestry activities with programs in the energy and agriculture sectors.
Support U.S.AID Mission, including other contractors, in coordinating the activities of the Forestry Planning and Development Project with other related Mission projects in the agriculture and energy sectors.
- A-II-5 Assist in establishing field demonstrations.

Assist in the design and execution of field activities that will demonstrate various aspects of growing trees for fuel, fodder, small construction members, timber, pulpwood, and other products.

Priority III

A-III-1 Feasibility of small pulpwood mills.
Encourage the establishment of small pulpwood mills within range of an adequate supply of farm grown pulpwood.

WILLIAM J. HART: Farm Forestry Outreach Specialist

Priority I

- B-I-1 Conduct project management workshops at Division level.
Assist the DIGF prepare materials, make physical arrangements, draft a manual, and act as facilitator in workshops on work plan preparation and management practice for DFO's and RFO's posted to the Project.
- B-I-2 Organize in-country computer training
Make arrangements for Pakistani specialists to offer orientation training for senior officers, operating instructions to Project personnel likely to use the equipment, and specific program instruction to specific operators charged with producing specific reports for the Project.
- B-I-3 Prepare comprehensive project training plan working paper.
Data have been collected from the Provincial departments. From the stated requirements of the departments, the working paper is to propose to the IGF phased training for interested/cooperating farmers, motivators, Foresters, RFO's, DFO's, Conservators, and senior officers.
- B-I-4 Arrange training for 42 Project Foresters
Advise and assist the O/IGF and the Provincial departments organize the first phase of training for Foresters assigned to work at the village level in the Project. The work is to build on the strategy of developing sufficiently the capacity of the Provincial training institutions to carry on the work at a later time and the phased program of training for farmers and Foresters.
- B-I-5 Arrange training for 40 "Motivators"
Advise and assist the O/IGF and the Provincial departments organize the first phase of training for "motivators" who volunteer to work on the Project. The training is to build on the work to define the characteristics and jobs of "motivators," the phased program of training for farmers and Foresters, and the development of training capacity in the Provincial training schools.
- B-I-6 Install computer hardware and software

Act as a facilitator between the units who are to receive the machines, the contractor who will do the physical installation and "burning in" of the hardware, the officers who will be responsible for the machines and operate them, and the O/IGF.

Priority II

- B-II-1 Organize and conduct Asian farm forestry tours
Monitor nominations and identify the itinerary for tours of Asian countries for farmers, foresters, and senior officials. The objective of such tours is to facilitate observation of successful farm forestry

practices and interchanges between practitioners with different experiences.

- B-II-2 Monitor long- and short-term U.S. participant training.
This is an all-inclusive activity that includes, but is not limited to, informal identification of best qualified candidates for the training identified in the training plan, tracking those selected through the nominating process and reporting periodically the status of the nominees, preparing detailed descriptions of the training required as identified in the training plan, recommending a slate of institutions and faculty able to impart the specified training, assist in scheduling remedial English language training and international tests, checking course work actually taken for compliance with the training requested, and monitoring career development upon the trainees' return to service.
- B-II-3 Plan and program very important Monitoring & Evaluation/ Planning & Management short-term training courses
The work includes planning for utilizing in the services the skills given to the trainees, evaluating the substance of the course work given and the trainees reaction to it, and recommending the venue and content of additional courses.
- B-II-4 Commodity procurement for Provincial departments
Specialized commodity procurement off-shore has been limited to the PFI and to procuring motor vehicles and heavy equipment. Each Project office and each Provincial training school should have a minimum amount of forestry, communications, and administrative equipment to carry forward all aspects of the Project work: training, extension, planning, budgeting, monitoring and evaluation, and performing technical forestry jobs. From approved tables of equipment, decisions will be made about the methods of procurement.
- B-II-5 Train Provincial forest school faculties in training program management
The work will be conditioned by the comprehensive Project training plan, but the faculties of the Provincial schools, to be of value to fostering the attitudinal changes needed for a successful farm and energy forestry program in Pakistan, should be afforded opportunities to learn ways to make teaching serve the purpose of attitudinal change. The senior staffs should also be provided opportunities to develop skills to plan and manage department training plans.
- B-II-6 Encourage farmer and forester in-country tours
Jobs in this task will range from encouraging the Provincial departments to allocate budgets to support one day farmer tours within tehsils, two and three day trip within districts, five day trips within Provinces, and 14 day trips within Pakistan

Priority III

- B-III-1 Prepare lists of books and periodicals to be purchased to support a specialized curriculum in Farm and Energy Forestry
Devise a policy to determine the number of each title in each course recommended as part of farm and energy forestry specialization at the

M.Sc.Forestry level, apply the policy, and facilitate the movement of a request to procure the titles in the number specified from PFI to USAID.

- B-III-2 Collaborate in making arrangements for "species seminars"
Assist in defining the training and demonstration content of two proposed consultancies for *Leucaena* and *Prosopis*.
- B-III-3 Monitor the adoption process for specialized curriculum in Farm and Energy Forestry.
The PFI have chosen to use two phases in moving the recommended curriculum through the formal adoption process employed by the University of Peshawar: adoption of three "core" courses followed by adoption of nine "basic" courses.
- B-III-4 Serve as advisor for editing and publishing a quarterly project newsletter
Jobs include drafting, editing, composing, printing, maintaining the mailing list, and dealing with financing.
- B-III-5 Collaborate in improving the facilities for outreach in the PFI
Of special concern are a multi-media room and a new block of five classrooms.
- B-III-6 Provide mass media material for use by Provincial Forest Departments
Program should be tied to traditional tree planting campaigns.

MICHAEL R. DOVE: Project Anthropologist

Priority I

- C-I-1 Initial statistical analysis of Interview Schedule #3
An initial statistical analysis will be made of the data obtained in these interviews which were concerned with the basic agricultural and sociological characteristics of approximately 1,200 farm households in 60 villages in three Provinces.
- C-I-2 Brief Forest Department staffs on the significance of analyses from Interview Schedule #3
The Forest Department staffs will be briefed on the results of these interviews that are of most immediate relevance to Project implementation.
- C-I-3 Select sample for administration of Interview Schedule #4
Approximately 40 villages and 600 farmers will be selected for administration of Interview Schedule #4 which is concerned with the economics and ecology of the production and consumption of fuelwood, fodder, and timber.
- C-I-4 Field testing of Interview Schedule #4
The schedule for Interview Schedule #4 will be fixed, the schedule will be field tested, and the researchers who will administer it will be trained in its use.
- C-I-5 Administer Interview Schedule #4
The research teams administering the interview schedule will be supervised in the field through field visits once every two weeks, and all completed interview schedules will be read and annotated.
- C-I-6 Issue Research Report
A first draft of the first in a series of research reports will be written. The subject will deal with the human ecological background to the development of farm forestry in Pakistan.
- C-I-7 Prepare Interview Schedule #5
Interview Schedule #5 will be prepared. It will investigate a variety of aspects of the role of trees in the village ecology. It will be administered to 40 groups of key informants and 40 maolvis in 40 different villages.
- C-I-8 Initial statistical analysis of Interview Schedule #4
An initial statistical analysis of the data gathered from the administration of Interview Schedule #4 will be carried out. The data focus on the matters of most immediate relevance to project implementation.
- C-I-9 Field testing of Interview Schedule #5
Interview Schedule #5 will be field tested and the researchers who will administer it will be trained in its use.

- C-I-10 Administer Interview Schedule #5
The research teams administering the interview schedule will be supervised in the field through field visits once every two weeks, and all completed interview schedules will be read and annotated.
- C-I-11 Design a system of Daily Farmer Records
A form to be filled in daily by a sample of "model farm households" - to gather accurate quantitative data on the production and consumption of fuelwood, fodder, and timber - will be prepared and field tested.
- C-I-12 Establish a system of Daily Farmer Records
Fifteen "model farm households" from around the country will be selected and instructed in the methodology for daily data recording.
- C-I-13 Lecture at PARC
Prepare and deliver a lecture on the use and perceptions of tree fodder among Pakistani farmers.
- C-I-14 Brief Forest Department staffs on the significance of analyses from Interview Schedule #4
The Forest Department staffs will be briefed on the results of these interviews that are of most immediate relevance to Project implementation.
- C-I-15 Initial statistical analysis of Interview Schedule #5
An initial statistical analysis of the data gathered from the administration of Interview Schedule #5 will be carried out. The data focus on the matters of most immediate relevance to project implementation.
- C-I-16 Monitor Daily Farmer Records system
The recording and processing of these field data will be supervised through periodic visits to the field and readings of the daily forms.
- C-I-17 Issue Research Report
A first draft of the second in a series of research reports will be written. The subject will be the factors determining farmer interest in the project.
- C-I-18 Brief Forest Department staffs on the significance of analyses from Interview Schedule #5
The Forest Department staffs will be briefed on the results of these interviews that are of most immediate relevance to project implementation.
- C-I-19 Teach 'Sociology' in the PFI
Twelve hours of lectures will be prepared and delivered for the sociology segment of the course "Sociology, Public Administration, and Extension."

C-I-20 Base-Line studies in Sind
A task order will be prepared to carry out base-line studies in the Sind, ust as they were carried out in the Punjab, NWFP, and Baluchistan.

C-I-21 Select and engage field research teams in Sind
Conduct searches, interviews, and other tests to select qualified personnel to train to administer the five Interview Schedules.

Priority II

C-II-1 Participate in Farm & Energy Forestry Executive Research Committee
Report on progress of the base-line studies at regularly scheduled meetings of the Farm and Energy Forestry Executive Research Committee.

C-II-2 Assist as Guide for M.Sc.Forestry thesis on hurries
Assist in preparing a research proposal and methodology and assist in field supervision of the student carrying out the work.

JAMIL A. QURESHI: Project Sociologist

Priority I

- C-I-1 Prepare Interview Schedule #4
Contribute to the design of a draft of Interview Schedule #4 that will be administered to determine farm energy practices.
- C-I-2 Pretest and revise Interview Schedule #4
Pretest the draft version of Interview Schedule #4 8 times in different project locations and, based upon the results of the tests, prepare a final version of the Schedule.
- C-I-3 Translate Interview Schedule #4 into Urdu and translate key terms into local languages
The final English language schedule will be re-translated into Urdu. Key terms will be translated for use in Punjab, NWFP, and Baluchistan.
- C-I-4 Supervision of field researchers
Supervise eight field researchers in administering the pre-tested Interview Schedules.
- C-I-5 Train field researchers in interviewing techniques
All eight field researchers will be given training in the field in how to administer the several Interview Schedules. They will be familiarized with several different techniques for conducting interviews.
- C-I-6 Review collected data
The field researchers will be visited every two weeks for supervision purposes. During the visits, all completed schedules will be read and necessary corrections and explanations will be added.
- C-I-7 Analyze Interview Schedule #3 data
Assist in preparing profiles based upon analysis of the data collected from administering Interview Schedule #3.
- C-I-8 Brief Forest Department officials on the significance and use of the summaries and analyses of data emanating from Interview Schedule #3
Data analyzed based on farmers courses results will be discussed with Forest Department field staff.
- C-I-9 Collect secondary data
Make arrangements for acquiring District census reports for project areas.
- C-I-10 Prepare key informants interview schedule
A village in depth interview schedule will be prepared which will include two separate interviews for Imam mosque and a group of key informants indentified during the administration of Interview Schedule #4 and analysis of the data.

- C-I-11 Translate key informants interview schedule
Translate Interview Schedule #5 regarding village indepth interviews into Urdu. Key terms will be translated into Punjabi, Baluchi, and Pushtu.
- C-I-12 Train field researchers in the use of Interview Schedule #5
Field researchers will be directed in the ways to use Interview Schedules #5a and #5b (Imam mosque interview form and key informants interview form, respectively).
- C-I-13 Supervise administration of Interview Schedule #5
Field researchers will be supervised in the course of their administration of interview Schedules #5a and #5b.
- C-I-14 Checking/editing of data collected by using Interview Schedule #5
Data collected by field researchers will be checked and edited in the field as part of supervision of the field researchers.
- C-I-15 Analyze Interview Schedule #4 data
Provide assistance in analyzing and interpreting the data resulting from administering Interview Schedule #4.
- C-I-16 Brief Forest Department officials on the significance and use of the summaries of Interview Schedule #4 data
Assist in briefing Forest Department officials on the significance of the data describing farmer energy forestry practices.
- C-I-17 Analyze Interview Schedule #5 data
Provide assistance in analyzing and interpreting ehd data resulting from administering Interview Schedules #5a and #5b.
- C-I-18 Teach rural sociology in the Pakistan Forest Institute
Lectures on rural sociology will be delivered to second year M.Sc.Forestry students.
- C-I-19 Make preparations for conducting Sind baseline studies
The project data base will be extended to areas in Sind Province. Preparations will include recruiting and training field researchers, modifying Interview Schedules #1 through #5, and selecting the size and location of the sample.
- C-I-20 Analyze Interview Schedule #5 data
Data collected for Imam mosque and key informant group interviews will be analyzed.

KENNETH L. McNABB; Farm Forestry Research Advisor

Priority I

- D-I-1 Assist in the conduct of quarterly meetings of the Farm and Energy Forestry Executive Research Committee
Assist the chairman and committee members prepare for and conduct two quarterly meetings of the committee with emphasis on the orderly consideration of field originated research topics.
- D-I-2 Revise Farm and Energy Forestry Executive Research Committee policy paper.
After a year of operation, the original policy paper that serves as a procedural guide for the Farm and energy Forestry Executive Research Committee, and the farm and energy research program in general, needs to be revised. The work will be done in collaboration with committee members.
- D-I-3 Assist in the implementation of the F/FRED research network
Participate in the work required to design an F/FRE network that serves Pakistan's interest and assist the PFI staff in their participation in the network.
- D-I-4 Take the lead in preparing nursery information manuals and/or pamphlets.
The manual/pamphlets will be drafted to assist in establishing private nurseries as defined by the project and to improve the management practices of existing and new government nurseries - particularly those producing stock for arid and semi-arid planting.

Priority II

- D-II-1 Advise principal research officers in design and execution of research projects
Assist in individual research project and study designs, plot layout, data collection, and reporting. The emphasis will be in the areas of farm forestry systems, ecological analysis, and tree-crop interactions.
- D-II-2 Organize short-term consultancies for teaching and demonstration purposes
In collaboration with the PFI staff, U.S.AID, and Winrock International, identify short-term consultancies to expand the distribution of research knowledge. The work will consist of drafting the necessary task orders. Two such consultancies are planned: *Leucaena* spp. and *Prosopis* spp.
- D-II-3 Serve as a thesis guide for a M.Sc. Forestry student
The work will be part of a long-term research effort focusing on the traditional Sind nurseries.
- D-II-4 Brief the Inspector General of Forests on all aspects of the farm and energy forestry research program

Prepare a working paper and arrange the agenda for a meeting with the Inspector General of Forests and his staff, officers of the PFI, and U.S.AID project personnel to discuss in detail the research program.

D-II-5 Receive and distribute off-shore commodities purchased to support the research program

Assist the PFI staff receive, inventory, and properly distribute the shipments of research oriented commodities.

D-II-6 Co-author a research report

Work with a counterpart research officer in analyzing data, organizing the findings of the research, and drafting a technical report for peer review before publication.

Priority III

D-III-1 Establish a soil and plant testing laboratory in the PFI

Work with a counterpart research officer to establish a soil and plant testing laboratory in the PFI that can serve as a model for similar laboratories in Provincial stations. The work will consist of redesigning a room in the PFI, determining the necessary commodities, and identifying qualified personnel and appropriate training.

D-III-2 Issue a status report on the project-supported Provincial stations

Inspect the progress in site development, construction, and development of new facilities, where appropriate, and in upgrading facilities in Miani, and in adding to new capacity in Gatwala. Work will include collaboration with the staffs in Gatwala and Sind to facilitate the agreed upon modifications.

D-III-3 Issue report on library questionnaire

A questionnaire was developed and distributed to the Provincial services through the Farm and Energy Forestry Executive Research Committee. The responses will be tabulated, analyzed, and findings reported.

D-III-4 Visit cooperating farmers

Make inspections of the farms of Punjab and NWFP farmers who are active participants in the project base-line surveys to help identify farm forestry systems research issues.

MONTHLY WORK PLAN

TAT MEMBER H. Eugene Ostmark

MONTH January - 1987

A-I-1	Coordinate activities of the contractor's home office, U.S.AID, Pakistan team members and the Government of Pakistan.
A-I-2	Supervise the professional work of all long-term and short-term Technical Assistance Staff in Pakistan.
A-I-3	Assist Government of Pakistan officers implement all aspects of the Project.
A-I-4	Analyze policies and recommend changes, as necessary.
A-I-5	Monitor and evaluate project progress and recommend modifications as necessary.
A-II-1	Prepare a series of manuals
A-II-2	Oversee and contribute to the development of a comprehensive farm and energy forestry research program
A-II-3	Oversee and coordinate all logistic arrangements for short-term consultants
A-II-4	Support coordination of forestry activities with programs in the energy and agriculture sectors.
A-II-5	Assist in establishing field demonstrations.
A-III-1	Feasibility of small pulpwood mills

MONTHLY WORK PLAN

TAT MEMBER H. Eugene Ostmark

MONTH February - 1987

A-I-1	Coordinate activities of the contractor's home office, U.S.AID, Pakistan team members and the Government of Pakistan.
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A-III-1	Feasibility of small pulpwood mills

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MONTHLY WORK PLAN

TAT MEMBER H. Eugene Ostmark

MONTH March - 1987

A-I-1	Coordinate activities of the contractor's home office, U.S.AID, Pakistan team members and the Government of Pakistan.
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A-II-5	Assist in establishing field demonstrations.
A-III-1	Feasibility of small pulpwood mills

MONTHLY WORK PLAN

TAT MEMBER H. Eugene Ostmark

MONTH April - 1987

A-I-1	Coordinate activities of the contractor's home office, U.S.AID, Pakistan team members and the Government of Pakistan.
A-I-2	Supervise the professional work of all long-term and short-term Technical Assistance Staff in Pakistan.
A-I-3	Assist Government of Pakistan officers implement all aspects of the Project.
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A-II-3	Oversee and coordinate all logistic arrangements for short-term consultants
A-II-4	Support coordination of forestry activities with programs in the energy and agriculture sectors.
A-II-5	Assist in establishing field demonstrations.
A-III-1	Feasibility of small pulpwood mills

MONTHLY WORK PLAN

TAT MEMBER H. Eugene Ostmark

MONTH May - 1987

A-I-1	Coordinate activities of the contractor's home office, U.S.AID, Pakistan team members and the Government of Pakistan.
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A-II-4	Support coordination of forestry activities with programs in the energy and agriculture sectors.
A-II-5	Assist in establishing field demonstrations.
A-III-1	Feasibility of small pulpwood mills

MONTHLY WORK PLAN

TAT MEMBER H. Eugene Ostmark

MONTH June - 1987

A-I-1	Coordinate activities of the contractor's home office, U.S.AID, Pakistan team members and the Government of Pakistan.
A-I-2	Supervise the professional work of all long-term and short-term Technical Assistance Staff in Pakistan.
A-I-3	Assist Government of Pakistan officers implement all aspects of the Project.
A-I-4	Analyze policies and recommend changes, as necessary.
A-I-5	Monitor and evaluate project progress and recommend modifications as necessary.
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A-II-4	Support coordination of forestry activities with programs in the energy and agriculture sectors.
A-II-5	Assist in establishing field demonstrations.
A-III-1	Feasibility of small pulpwood mills

22 - B
MONTHLY WORK PLAN

TAT MEMBER William J. Hart

MONTH February - 1987

B-I-1	Conduct project management workshops at Division level
B-I-2	Organize in-country computer training
B-I-3	Complete Project Training Plan
B-I-4	Arrange training for 42 Project Foresters
B-I-5	Arrange training for 40 "Motivators"
B-II-1	Complete arrangements for and begin Asian Farm Forestry Tour
B-II-2	Monitor long- and short-term U.S. participant training
B-II-3	Plan and program 90-day short courses
B-II-6	Encourage farmer in-country tours
B-II-7	Support regular Project Director/Coordinator conferences
B-III-1	Submit list of texts and periodicals for 3 core F&EF courses
B-III-2	Collaborate in arranging for "species seminars"
B-III-3	Monitor adoption process for Farm & Energy Curriculum
B-III-4	Edit and publish project newsletter

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MONTHLY WORK PLAN

TAT MEMBER William J. Hart

MONTH March - 1987

B-I-1	Conduct project management workshops at Division level
B-I-2	Organize in-country computer training
B-I-3	Complete Project Training Plan
B-I-4	Arrange training for 42 Project Foresters
B-I-5	Arrange training for 40 "Motivators"
B-II-1	Complete arrangements for and begin Asian Farm Forestry Tour
B-II-2	Monitor long- and short-term U.S. participant training
B-II-3	Plan and program 90-day short-course
B-II-4	Commodity procurement for Provincial Departments
B-III-1	Submit list of texts and periodicals for all F&EF courses
B-III-2	Collaborate in arranging for "species seminars"
B-III-3	Monitor adoption process for Farm & Energy Curriculum
B-III-4	Edit and publish project newsletter
B-III-5	Improving facilities for outreach in the P.F.J

MONTHLY WORK PLAN

TAT MEMBER William J. Hart

MONTH April - 1987

B-I-1	Conduct project management workshops at Division level
B-I-2	Organize in-country computer training
B-I-4	Arrange training for 42 Project Foresters
B-I-5	Arrange training for 40 "Motivators"
B-I-6	Install computer hardware and software
B-II-1	Complete arrangements for and begin Asian Farm Forestry Tour
B-II-2	Monitor long- and short-term U.S. participant training
B-II-3	Plan and program 90-day short courses
B-II-4	Commodity procurement for Provincial Departments
B-II-5	Train forest school faculties in training program management
B-II-6	Encourage farmer in-country tours
B-II-7	Support regular Project Director/Coordinator conferences
B-III-1	Submit list of texts and periodicals for all F&EF courses
B-III-2	Collaborate in arranging for "species seminars"
B-III-3	Monitor adoption process for Farm & Energy Curriculum

MONTHLY WORK PLAN

TAT MEMBER William J. Hart

MONTH May - 1987

B-I-2	Organize in-country computer training
B-I-5	Arrange training for 40 "Motivators"
B-I-6	Install computer hardware and software
B-II-2	Monitor long- and short-term U.S. participant training
B-II-3	Plan and program 90-day short courses
B-II-5	Train forest school faculties in training program management
B-II-6	Encourage farmer in-country tours
B-II-7	Support regular Project Director/Coordinator conferences
B-III-2	Collaborate in arranging for "species seminars"
B-III-3	Monitor adoption process for Farm & Energy Curriculum
B-III-4	Edit and Publish project newsletter
B-III-5	Improve facilities for outreach in the PFI
B-III-6	Provide Mass media material for use of Provincial Forest Departments

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MONTHLY WORK PLAN

TAT MEMBER William J. Hart

MONTH June - 1987

B-I-1	Conduct project management workshops at Division level
B-I-5	Arrange training for 40 "Motivators"
B-I-6	Install computer hardware and software
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B-II-5	Train forest school faculties in training program management
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B-III-3	Monitor adoption process for Farm & Energy Curriculum
B-III-4	Edit and Publish project newsletter .
B-III-5	Improve facilities for-outreach in the P.F.I.

MONTHLY WORK PLAN

TAT MEMBER Kenneth L. McNabb

MONTH January - 1987

D-I-1	Assist in the conduct of quarterly meetings of the Farm and Energy Forestry Executive Research Committee
D-I-2	Revise Farm and Energy Forestry Executive Research Committee policy paper
D-I-3	Assist in the implementation of the F/FRED research network
D-I-4	Take the lead in preparing nursery information manuals and/or pamphlets
D-II-1	Advise principal research officers in design and execution of research projects
D-II-2	Organize short-term consultancies for teaching and demonstration purposes
D-II-3	Serve as a thesis guide for a M.Sc.Forestry student
D-II-4	Brief the Inspector General of Forests on all aspects of the farm and energy forestry research program
D-II-5	Receive and distribute off-shore commodities purchased to support the research program
D-II-6	Co-author a research report
D-III-1	Establish a soil and plant testing laboratory in the PFI
D-III-2	Issue a status report on the project-supported Provincial stations
D-III-3	Issue report on library questionnaire
D-III-4	Visit cooperating farmers

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MONTHLY WORK PLAN

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SECTION II: GOALS FOR EIGHT-YEAR PROJECT PERIOD

Clause 1: Planning, Policy, Program, and Budget

a. Procedural policy formation. Existing Federal and Provincial policies affecting planning, policy formation, budgeting, monitoring, and evaluating of forest departments' programs will be reviewed and analyzed, and a working paper prepared. A workshop of senior officials will be held to review the paper and make an agreed statement of the problems identified. The problems will be considered by a working committee. Their recommendations will be formulated and circulated, and a plan of action prepared. When the governments are in agreement, necessary action will be taken to install the new policies and begin implementation.

To facilitate the planning, policy formation, budgeting, monitoring, and evaluating processes, computer hardware and software will be purchased and a computer training program organized. In addition, one forest officer from each Province and two from the Office/Inspector General of Forests (O/IGF) will be offered long-term overseas training in policy, planning, and administration.

b. Afforestation and fuelwood development policies. Steps will be taken to compare direct and indirect returns from public investment on government *versus* private land, the division of Federal and Provincial responsibilities for forestry and fuelwood development, the role of fuelwood as an energy resource, and the role of farm forester in enhancing agricultural productivity.

From the data developed during the comparisons, report series will be initiated to reflect trends in farm energy condition. Economic analyses will be made and related to existing afforestation and fuelwood development policies. From these analyses, priorities will be assigned to issues promising the highest marginal returns and in priority order major policy changes will be proposed, adoption sought, and implemented. The analyses will be supported by research to define the relationship of farm forestry compared to agricultural productivity.

Concrete actions during the first two years will include a working paper updating the current farm and energy status, and, beginning about the third year as reliable data become available, a plan for economic analysis of farm forestry will be prepared. Subsequently, the economic analyses will be carried out, the results of the analyses circulated, workshops conducted to consider modification of priorities and/or policies, the necessary steps for action identified, and implementation begun. Long-term overseas training in farm and energy forestry will be provided to one officer each from the O/IGF and the Pakistan Forest Institute (PFI), and in planning and resource economics to an officer from the PFI.

c. Prepare, analyze, and justify budgets. Budgeting is essentially a process of allocating funds for implementation of work plans. The process, then,

is to prepare a detailed work plan annually in conformance with project goals and with overall requirements and constraints for each participating Province and the Government of Pakistan and then calculate the costs necessary for each planned action.

Specific steps will be taken to prepare annual work plans in accordance with the project objectives for each organizational unit, the calculate associated costs, and assign necessary funding. In addition, an update and evaluation will be prepared and considered within the organizational units.

The first of computerization of the the budgeting and reporting process should be done in the third year and refined in the fourth year. Then an integrated system of planning, justification, budgeting, and reporting will be implemented. The forest officers selected for overseas training in policy, planning, and administration, as well as the officer with training in planning and resource economics, will be expected to facilitate improved budgeting upon their return.

d. Afforestation, farm forestry, and fuelwood development project analysis. Analyses of various types of farm and energy systems will be carried out. The analyses will consider technical, economic, and social aspects, beginning with existing systems and progressively expanding to include other designs and ecotypes. The objective is to transfer the ability to analyze individual (village or district) afforestation, farm forestry, and/or fuelwood development projects to determine their technical, economic, and social feasibility and their potential contribution to overall economic development in Pakistan.

A curriculum for specialization in farm and energy forestry at the M.Sc.Forestry level will be developed, including revision of traditional courses. This will include training in analyzing components, interactions, and energy/economic flows and designing the integration of trees into overall farm management. During the second year, M.Sc.Forestry curriculum development work will be completed. Later, appropriate portions of the specialty will be incorporated into the B.Sc.Forestry curriculum.

There will be investigations of traditional farm forestry systems in the country, including characterization of existing Pakistan agroforestry systems. Two of these will be analyzed with annual reports on at least one system from each Province, incorporating additional base-line data accumulated through the life of the project and with increasing responsibility shifted to local foresters.

e. Introduce and begin operation of hardware, software, and analytic techniques for data processing and analysis. Computerization will be an integral part of all planning, budgeting, and reporting. Data processing, analysis, and reporting can be made much more accurate and faster by using computers; but more important, the selection and introduction of appropriate software will ensure detailed and consistent methods for monitoring and evaluating results.

During the second year, computers and software will be provided to all major operating units. Forest Department personnel will be taught basic operation of the machines plus use of the necessary software. Subsequently, computer/software use will be incorporated into all PFI curricula and more complex and interactive software will be included in normal administrative

procedures. Additional equipment will be supplied where needed, under adequate operating conditions.

f. Coordinate farm and energy forestry with related policies and programs in the energy and agricultural sectors. Coordination is attained through communication. Periodic visits will be made to related projects and organizations, such as PARC, NARC, BARD, ABAD, AZARI, the four universities of agriculture, the nuclear research institutes, energy projects, and irrigation projects; publications will be exchanged; research planning, studies, and evaluations will be shared -- formally where appropriate, and informally at other times and places.

In 1987, an annotated listing of related projects will be prepared for future use, and visits and other interchanges will be carried out as scheduled. Opportunities will be sought to arrange professional interchanges and support. Thereafter, such visits and interchanges will be continued on a regular basis, but with emphasis on the more rewarding exchanges and organizations. Biannual summaries of coordination will be prepared.

g. Identify long- and short-term overseas training opportunities and identify and screen individuals who should participate. Training needs scheduled in the Project Paper will be reviewed and compared with the PC-1. Current and future needs of the project will be continually assessed, training opportunities and activities monitored, and project personnel considered for the needs and opportunities found, and career progress monitored upon their return to Pakistan.

In the first year, the trainees specified in the Project Paper for initial overseas training will be selected and specific coursework and institutions identified. A detailed training plan through 1989 will be prepared before June 1987. Authorization and nomination of candidates for training beginning in 1987 will be arranged.

Thereafter, the training plan will be reviewed annually and necessary modifications recommended. Responsibility for the maintenance of the plan will be shifted increasingly to local staff.

h. Design and implement short-term in-country training programs. Forestry staff, farmers, and related decision-makers and opinion molders will be included in the training program. Initial emphasis will be on facilitating forester/farmer interaction, farm and energy forestry techniques, and training of trainers. As experience and data are accumulated and analyzed, summary reports and workshops will increase for both foresters and farmers, followed by emphasis on demonstrations and outreach, primarily by the field Foresters and farmers, to involve additional villages and farmers in the project areas.

By June 1987, a work plan for in-country outreach will be prepared for the period 1 July 1987 to 30 June 1988. Thereafter, an outreach segment will be part of every annual work plan prepared for the project under the auspices of the O/IGF.

Farm and Energy Forestry Research

a. Develop and begin implementing a research program in support of farm and energy forestry. A research review committee will be established with one member from the PFI, each Province, and the Technical Assistance Team (TAT). Meetings will include observers and advisors from organizations with shared interests. Research based on project needs may be proposed by any concerned unit. Proposals will be reviewed, have a priority assigned to them and be coordinated by the committee. Approved research tasks will then be carried out by the appropriate unit or units. Two staff members from the PFI will receive related long-term overseas training: one in silvics and tree improvement and one in ecology.

Aspects to be considered in research are: design and yield of farm forestry systems that integrate trees, pasture, and field crops under both rainfed and irrigated conditions; ecological analysis of farm and farm systems; species and genotype testing for farm forestry application; and hydrological analyses.

During 1986 the Farm and Energy Forestry Executive Research Committee was organized and quarterly meetings held. Model study plans will be prepared and new studies will be initiated. A report will be prepared summarizing the status of past and active research in relation to farm and energy forestry operational needs by December 1987. In addition, a policy paper, including the functioning of the Research Review Committee, will be prepared before June 1987.

b. Identify long- and short-term overseas training opportunities to prepare Pakistani professionals to take over full responsibility for farm and energy forestry research. In order to successfully perform this task, the first requirement is that personnel must be posted to the project from whom candidates can be selected for particular jobs and given the requisite training. The second requirement is a change in the attitude of senior officers about career development and the selection, training, and promotion of persons best suited to do research and teaching.

Clause 3: Farm Forestry Field Operations

a. Establish effective Provincial Forest Department organizations and infrastructure. Establishing effective Provincial organizations and infrastructure to encourage and assist farmers in adopting on-farm tree crop management activities is, essentially, the substance of the Forestry Planning and Development Project. A satisfactory operating mode requires employment of sufficient field officers -- adequately trained and motivated, with offices, residences, and adequate transport and supervisory and administrative support who will assist farmers and communities on a continuing basis.

During the first two years, posts authorized will be filled, long-term training initiated, vehicles and commodities procured, construction designed and some begun, short-term training planned and begun, farmers contacted on a trial basis, experimental advisory committees formed and different modes of operation

tried, existing research reviewed and additional research planned and initiated, work plan guided work for each unit started, and some monitoring and evaluating begun. Status and trends will be reported quarterly. Subsequently, all the processes and conditions will be improved by continuing analyses, reporting, and discussion, consensus, and implementation of the policy and procedural changes agreed upon.

b. Conduct base-line surveys and sociological and anthropological assessments in the target districts. Surveys and assessments of current conditions in the civil districts where field operations are authorized will be carried out to provide more comprehensive guidelines for: selecting village motivators/contacts; devising acceptable strategies and tactics for involving farmers in designing, implementing, and monitoring integrated farm and energy plantings; selecting incentives (not subsidies) to encourage lasting farmer participation in tree culture; selecting representative villages for continued intensive monitoring and evaluating activities to determine project effectiveness.

Proper monitoring and evaluation requires a baseline of existing farm and energy forestry practices in the civil districts to be served by the project. Such baselines are established by gathering basic demographic, agricultural, and farm forestry data in a sample of the villages and by conducting in-depth interviews with representative farmers on present production and consumption of dung, fuelwood, and fodder. The major goal will be to determine how much land is available for tree planting, what uses the proposed trees are to be put, how many and what species of trees are desired, and the size and distribution of private nurseries. Supplemental information will be obtained on the structure of rural society: e.g., landlord-tenant relationships, land tenure, village socio-political organization and power structure, as these relationships influence tree farming. Inquiry will also be made into the extent of farmers' knowledge of trees and the attitudes taken by government foresters. These data will assist in defining and supporting needed farmer training and motivation, use and selection of village representatives, organizing and using advisory committees, and -- above all -- determining the overall needs of farm forestry by the rural population.

Besides periodic reports, substantive reports will be prepared after each period of data collection/analysis, as well occasional interpretive reports. Workshops and seminars will be held, and participation in the training of project staff will be performed as appropriate.

By 1987, the baseline census data will have been collected in the field, analyzed, reported, considered in workshops, and utilized in both policy-making and decision-making; field work involving intensive interviews of individual farmers will be completed; a village record-keeping plan will be completed; a series of lectures for PFI will be prepared and presented; seminars will be presented in each Province; and working papers to serve the operational needs of the project will be prepared.

c. Prepare mass-media materials and programs. An important part of an outreach plan and program is the production of materials for use in the several communications media: print, radio, television, slides, and charts. Some media, e.g., television, are suited only for very general messages; other media, e.g., district newsletters, can be very narrowly focused.

The development of media campaigns will be coordinated with existing, traditional seasonal tree planting publicity. The emphasis will be upon forestry on private farm and range land. A farm forestry logo and the Forest Department insignia should be prominently featured in each message regardless of media.

In 1987, a logo will be prepared, integration of existing mass media programs in the Provincial Forest Departments will be sought, and several campaigns will be designed.

d. Establish nurseries owned and operated by farmers for farmers. Construction and operation of private nurseries to supply seedlings for farm and energy forestry planting is to be encouraged. Establishing successful private nurseries will involve: setting out specific general design criteria to guide farmers in the construction of their nurseries; producing guidelines for the selection of adequate sites and for determining correct timing for necessary cultural operations; selection and training of operators; monitoring and evaluating of production steps; providing logistical support; devising a loss-resistant incentive system to protect both farmers and the project.

A manual will be developed. It will deal with the inherent variability in sites, species, operators, customers, and weather. The format will provide for periodic correction on the basis of specific experience. An essential part of developing independent private nurseries is the graded elimination of government services and products.

In 1987, a few private nurseries may be begun in each Province with designs approved and funded through a fixed amount reimbursement arrangement. Some organization and training will be provided. Each year thereafter, additional nurseries will be initiated. These nurseries will be based upon socio/anthropological survey data and market conditions while organization, policy, and nursery techniques are refined. By the end of the project period, fully independent, economically viable, socially acceptable nurseries will be in place producing vigorous stock of the species in the quantities and of the quality demanded by the marketplace.

e. Establish and manage farm forestry outreach programs at the district, tehsil, and village levels. The outreach programs at each level consist of the network of relationships between the change agent at that level (DFO at district, RF0 at tehsil, and Forester at village), the formal citizen mechanisms (single purpose committees and general committees), the informal community mechanisms, and the farmers. At each level, management seeks to establish a professional relationship which consists of coming when called, offering advice and counsel, and assisting directly in implementing accepted solutions. Part of management is devising appropriate mechanisms to develop confidence and trust among the various, sometimes competing, parts of the network. Informal contacts in tea houses and in the field, posters, hand-outs, public meetings, and use of rewards for good work, such as public recognition and invitations to take tours, are examples of local outreach techniques.

f. Establish a system to monitor and evaluate farm and energy forestry activities. A monitoring and evaluation system now exists in all organizational units for both fiscal and physical targets. The need is to improve the existing systems through greater detail, more frequent monitoring, quicker reporting, and more efficient evaluation. This is to be done by improving planning, policies, and budgeting and by facilitating methods -- primarily by means of

computerization -- and through evaluation, not by major changes or redesigning of the functioning systems.

A monitoring system to cover details of farmer contact, seedling distribution, farmer follow-up, and planting development will be begun in the four Provinces during the second year with biannual summary reports issued. Thereafter, the system will be refined, computerized, and expanded as necessary through

g. Develop and establish specialized M.Sc. Farm and Energy Forestry and B.Sc. Farm and energy Forestry curricula at the PFI. A curriculum for specialization in Farm and Energy Forestry at the M.Sc. Forestry level was prepared. The three core specialization subjects have been accepted by the PFI faculty; formal approval by the University of Peshawar is expected in the second year. Acceptance of all course recommendations for satisfactory teaching of farm and energy forests by the PFI faculty, and approval by the University of Peshawar, is expected in the third year. During the third year, some elements of the Farm and Energy Forestry specialization may be incorporated in the B.Sc. Forestry curriculum. The effect sought is to produce approximately 12 forest officers yearly with specialized training in farm and energy forestry and for all officers graduated by the PFI to be sufficiently well grounded to understand the basic similarities and differences of tree planting for self-sufficiency of small holders versus industrial/conservation management on large government or private holdings.

h. Identify long- and short-term professional training opportunities to support field operations. It is certain that one or more years of field experience, plus the results of preparing the training plan, will surface training needs peculiar to field operations: the social sciences are likely ones. In addition to formal courses in traditional training institutions, there is a constant stream of national and international conferences, short courses, seminars, and workshops, many of which are relevant to the project's aims. Both aspects will be observed, considered, and the results incorporated into the annual update of the training plan.

i. Design and implement in-country seminars to prepare senior Pakistani professionals to design, coordinate, and manage farm and energy forestry programs. Preliminary priorities have been set for the first plan. A minimum schedule of such seminars will be set for the financial year; the schedule will be sufficiently loose to permit additions and deletions as conditions change during the year.

j. Design and begin technical programs to train outreach foresters and farmers in techniques of on-farm tree crop management. The technical program has been designed for Foresters and RFO's. In the first instance, the emphasis is upon communications and job identification and technical skills in private nurseries, protection, and land improvement; in the second instance, the emphasis is upon the role of forestry in community development and meshes with hands-on field training in work plan preparation for the tehsils.

The training will be supported by manuals and technical notes developed from field experience, research, and synthesis of other research.

A system of demonstration plots will be installed to illustrate in the most effective manner the use of trees in a variety of production systems conditioned to farmer objectives, site, and technical performance of tree species.

k. Organize and conduct Asian farm forestry study tours for selected professionals and farmers. Study tours to observe private forestry on family-size farms under similar cultural and ecological conditions and to converse freely with foresters and farmers about the advantages, disadvantages, methods, and results of growing tree crops on private farms are more convincing than any amount of formal training or audiovisual demonstrations. They are available more quickly than locally produced equivalents and can be selected to cover a wider gamut of conditions. By the end of the project, local project personnel should have been exposed to most aspects of farm and energy forestry and be aware of, or preferably participants in, the international forestry community.

In 1987, probably in June, an Asian study tour will be organized and conducted. It will be followed by a consensus report and series of workshops/seminars to facilitate participants meeting with other farmers and foresters. Depending on an evaluation of results, additional tours may be conducted, preferably annually, to different sites on each tour.

l. Organize and conduct farm and energy forestry tours within Pakistan. The processes and considerations governing in-country tours are the same as for international ones. They are all rooted in the well known value of demonstrations. Thus, the tour program begins with farmer days organized in tehsils by RFO's; continues to intra-district trips organized by DFO's, inter-district tours organized by Provincial project staff, and inter-provincial tours organized by the O/IGF. Tehsil and district tours are parts of outreach management programs at those levels.

Such tours are particularly important in Pakistan: First because of the insularity of the Provincial Forest Departments and the lack of opportunity for foresters to see what is currently happening in various parts of the country, and second because of the tremendous amount and variety of agroforestry being practiced by the farmers of the country.

m. Prepare a silvicultural plan for the irrigated plantations of the Sind. A plan will be proposed, including input from a silviculturist and mensurationist familiar with production of fuelwood, for producing optimum biomass from the capital intensive forest units.

One or more studies, including several of the huries, will determine what yields can be expected from these successful, productive farmer-initiated systems. A M.Sc. Forestry candidate was chosen to do thesis research on the huries; his work in 1987 will assist in the larger evaluation of the applicability of the Sind hurie system.

n. Improve and expand the irrigated forest plantations in the Sind. Review present designs and methods of irrigation, evaluate species and provenances now in use, consider future markets, competition, and silvicultural techniques and objectives in preparing recommendations.

During 1987 the work will emphasize intensive review of irrigation system design, maintenance, and management. It is intended to establish an improved system on one forest --incorporating instruction and training in the

establishment phase. New system essentials and results would be documented in an end-of-year report. In the following years, the system and the training would be extended to new forests -- refining and improving both the system and the training through workshops and technical reports. The final product should be improved irrigation systems, capable personnel, and a review and update of the forestry manual on irrigation of plantations.

During 1987, training is being offered to RFO's assigned directly to the work of irrigation system design, operation, and maintenance.

Clause 4: General

a. Identify and procure selected items of equipment and materials and identify other equipment and commodity needs for separate procurement through other USAID projects and mechanisms.

Working from the illustrative lists in the Project Paper, the organizations and units in the project will prepare lists of desired commodities. The appropriate staff members will assist and advise in selecting specifications and possible sources and recommend procurement for approval by USAID. Procurement will then be carried out in compliance with USAID regulations.

In 1986, commodity lists were prepared. As experience in the project demonstrates additional needs, further commodity procurement will be considered.

b. Participate in periodic and special project evaluations. Members of the TAT will be available to assist in the conduct of regularly scheduled and special project evaluations as requested by the Government of Pakistan or USAID.

An annual evaluation will be made of training programs conducted. A report showing the number of people trained, the title/subject of training, and the inclusive dates of training will be shown.