

**FORESTRY PLANNING & DEVELOPMENT PROJECT  
GOVERNMENT OF PAKISTAN - USAID**

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

**QUARTERLY PROGRESS REPORT**

**1 April - 30 June, 1993**

**with**

**1992/1993 Fiscal Year Summaries  
and  
Life of Project Summaries**

**ISLAMABAD, PAKISTAN  
July 29, 1993**



# FORESTRY PLANNING & DEVELOPMENT PROJECT

## Government of Pakistan-USAID

29 July 1993

TO: Kh. Hameedullah  
Project Officer

FROM: Charles R. Hatch *Charles R. Hatch*  
Chief of Party

SUB: Quarterly Report for Period 1 April - 30 June, 1993

Attached is the Quarterly Report for the fourth quarter of Pakistan FY 92/93 covering the period 1 April - 30 June, 1993. Graphs and tables in this report also summarize FY 92/93 achievements as well as life of project achievements.

### Distribution:

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**Winrock International**

**Technical Assistance Team**

58, Margalla Road, F-7/2, Islamabad, Pakistan. Tel : 813262 -- 813272 Fax : 54252-WIFPD-PK Fax : 824519

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The following tables give a tabular summary of project activities for the 4th quarter, cumulative for Pakistan fiscal year 1992-1993, and cumulative for life of project. Included in the tabular summary is:

Table 1. Fourth quarter's accomplishments by geographic location.

Table 2. The 1992/93 fiscal year project targets and accomplishments by geographic location.

Table 3. The 1992/93 fiscal year project targets and accomplishments by quarter.

Table 4. The life of project targets and accomplishments by fiscal year.

Table 5. Punjab life of project accomplishments by fiscal year.

Table 6. Sindh life of project accomplishments by fiscal year.

Table 7. NWFP life of project accomplishments by fiscal year.

Table 8. Balochistan life of project accomplishments by fiscal year.

Table 9. PFI/Federal/Other life of project accomplishment by fiscal year.

Table 10. No. of NGO grants by type and province.

Attachment A gives the cumulative life of project Technical Assistance Team expenditures by line item. Attachment B gives the cumulative life of project USAID and GOP expenditures. Attachment C lists the publications and reports produced by the project during the 4th quarter of fiscal year 1992/93. Attachment D lists publications and reports produced by the project during fiscal year 1992/1993. Attachment E lists NGO grants awarded and completed during fiscal year 1992/1993.

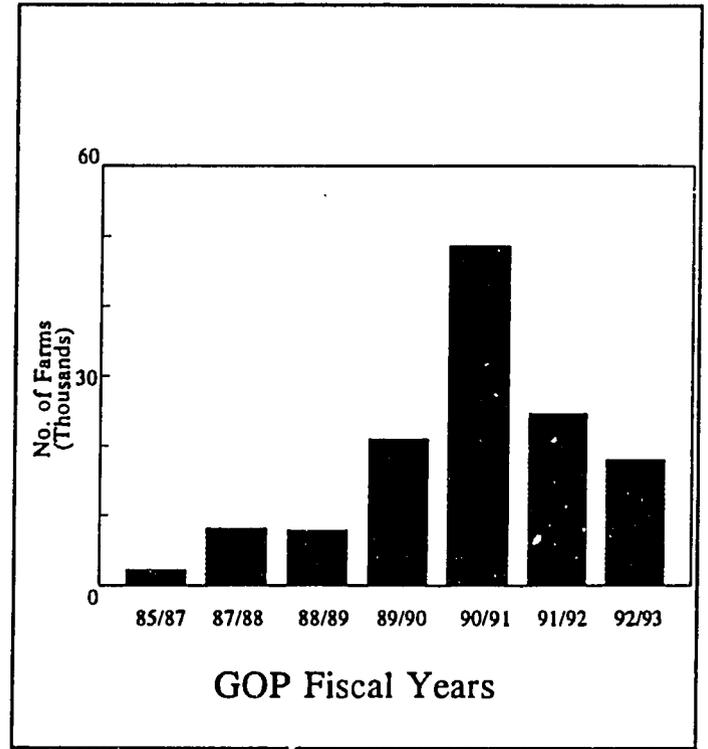
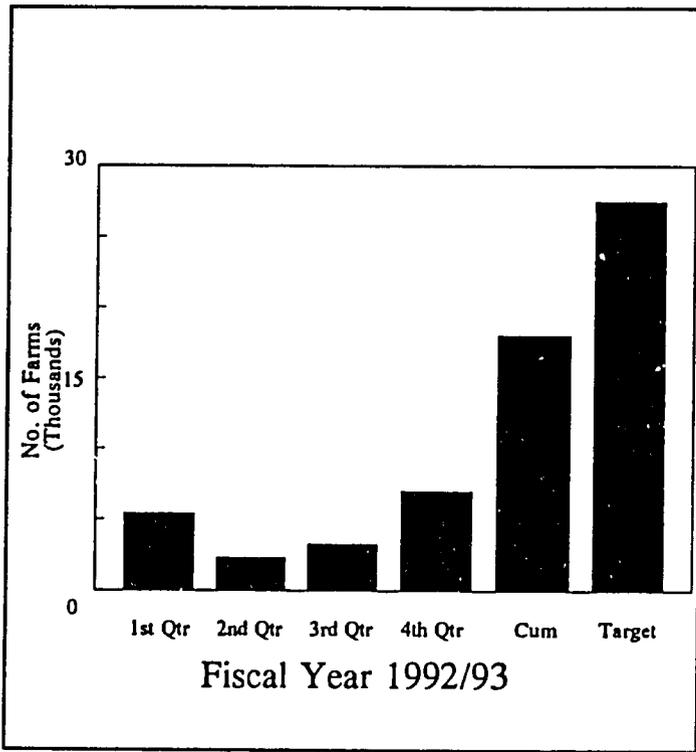


Figure 1. No. of Farm Households Participating in Farm Forestry

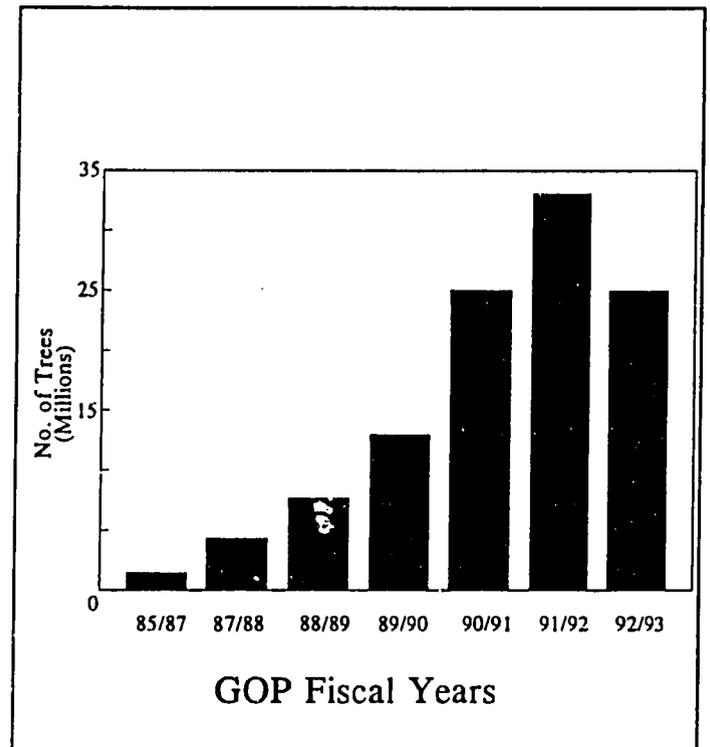
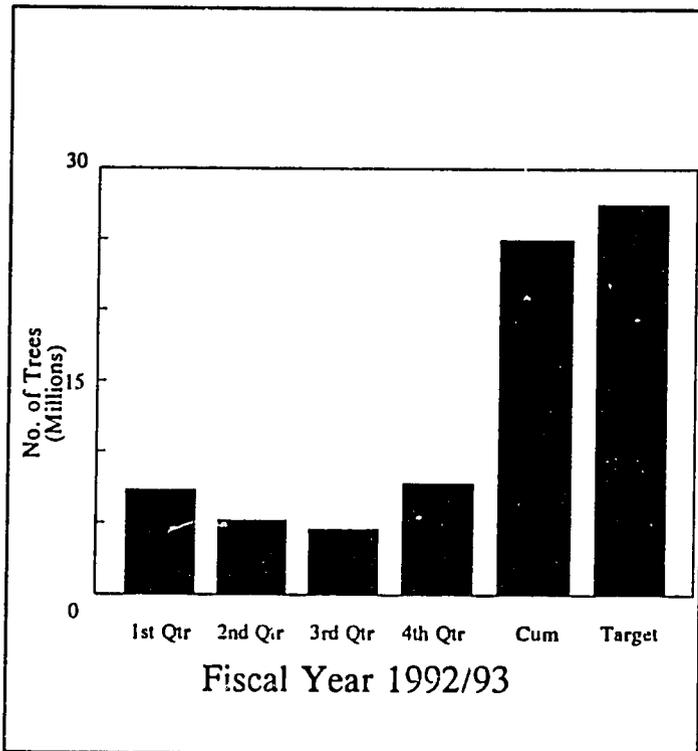


Figure 2. No. of Trees Planted on Farms - All Provinces

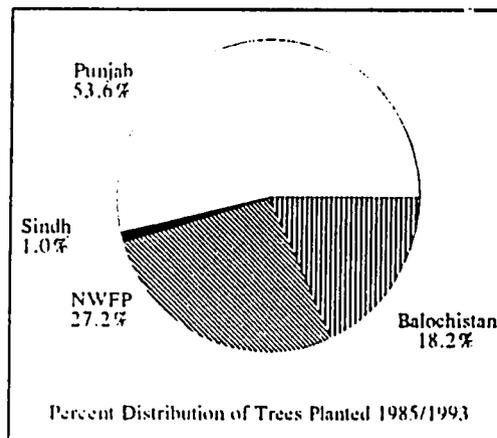
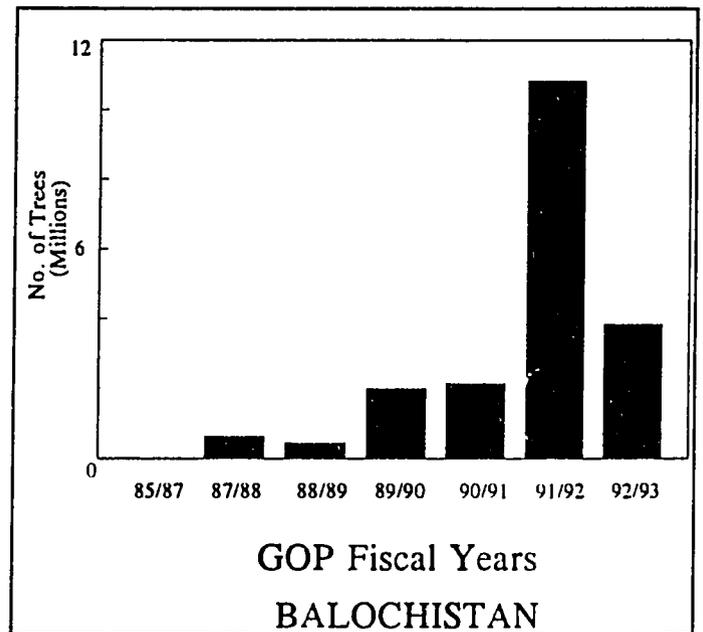
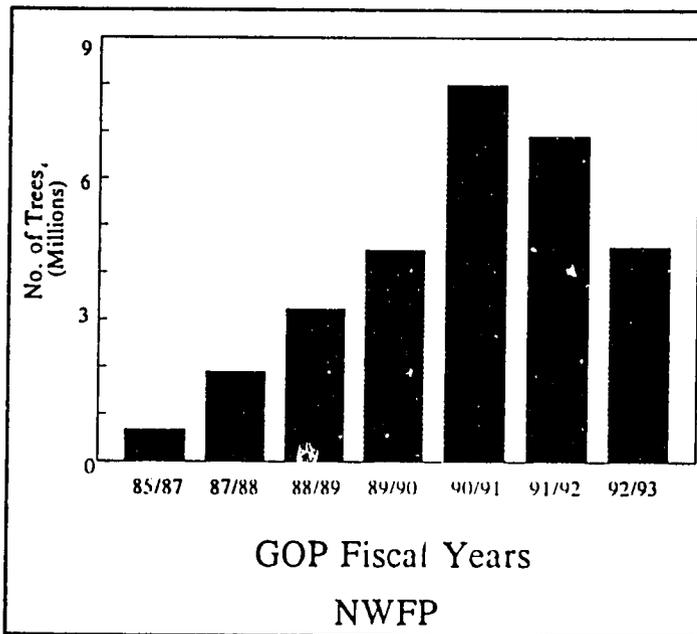
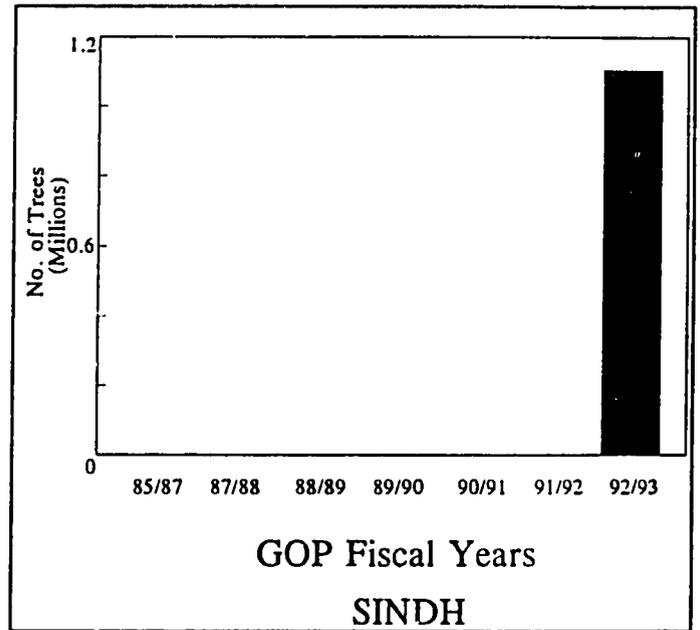
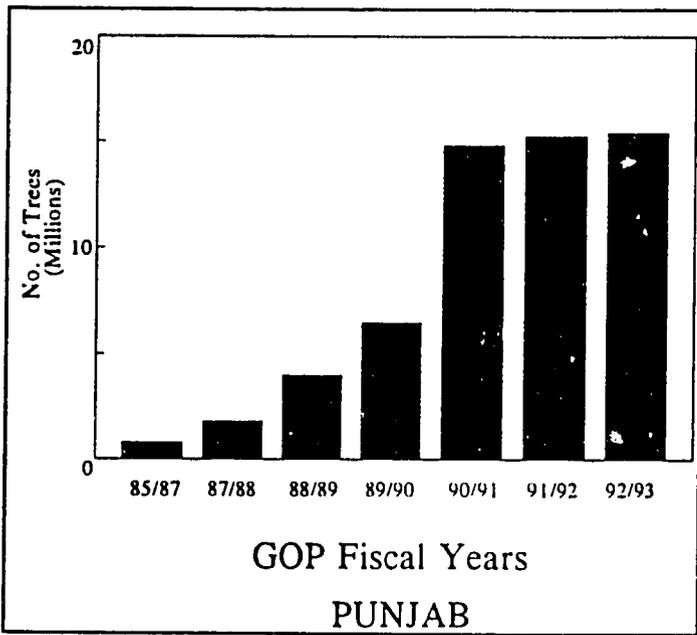


Figure 3. No. of Trees Planted on Farms by Province

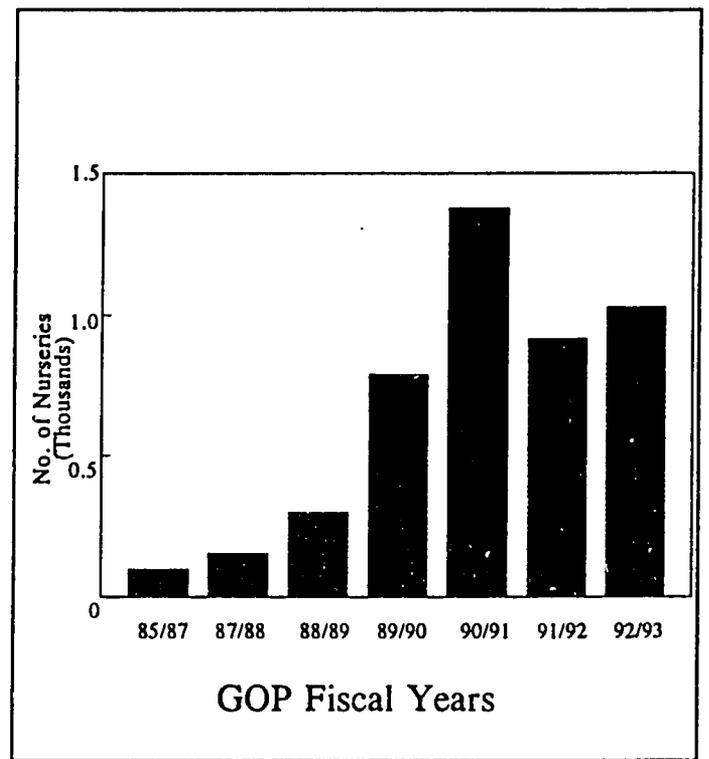
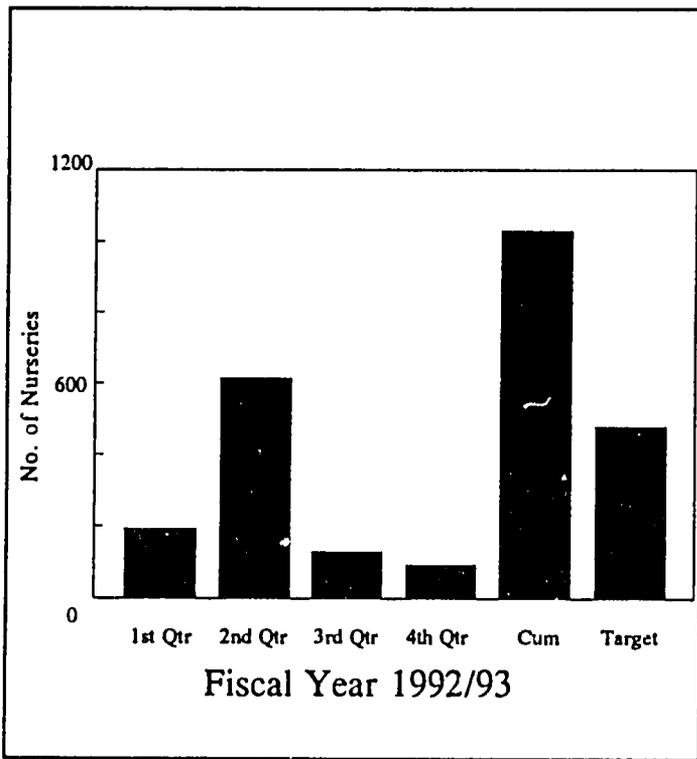


Figure 4. No. of Private Farm Nurseries

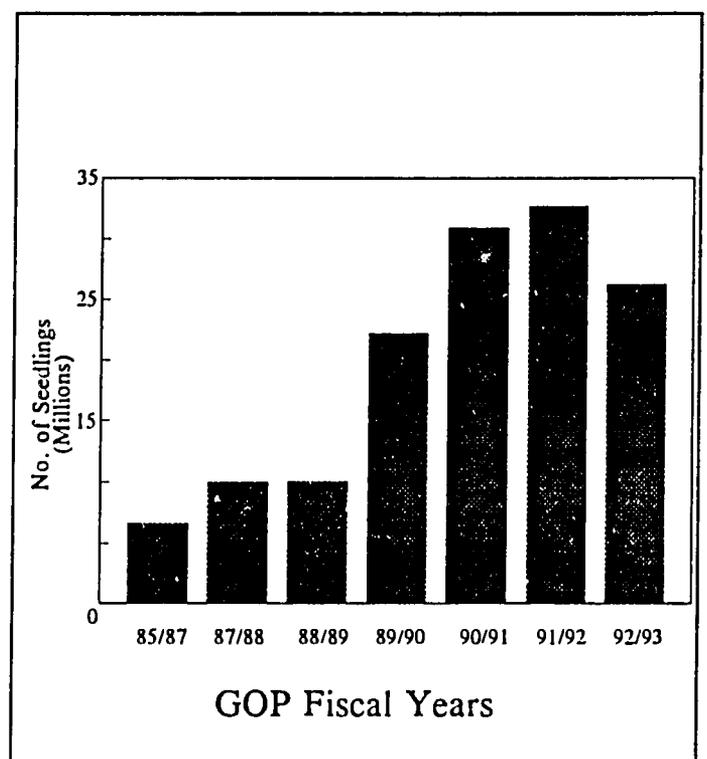
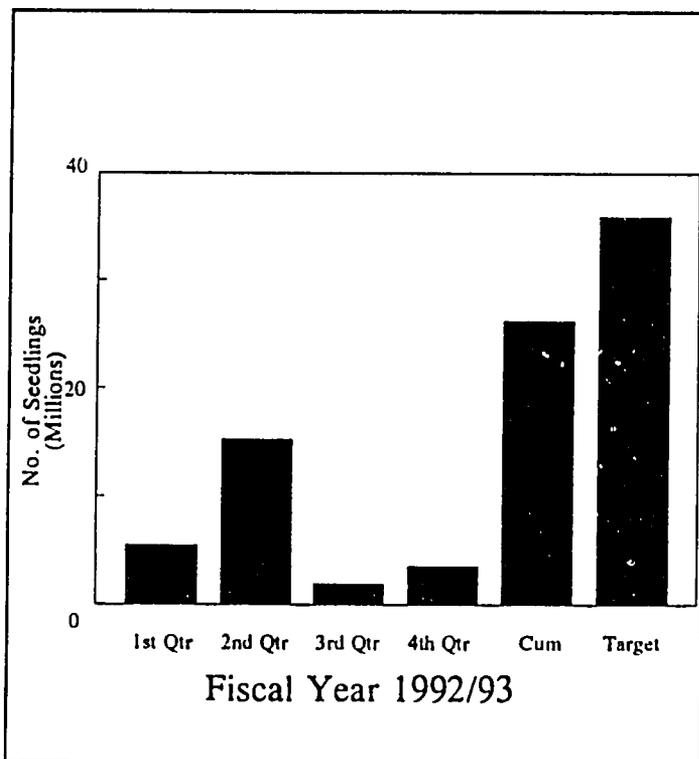
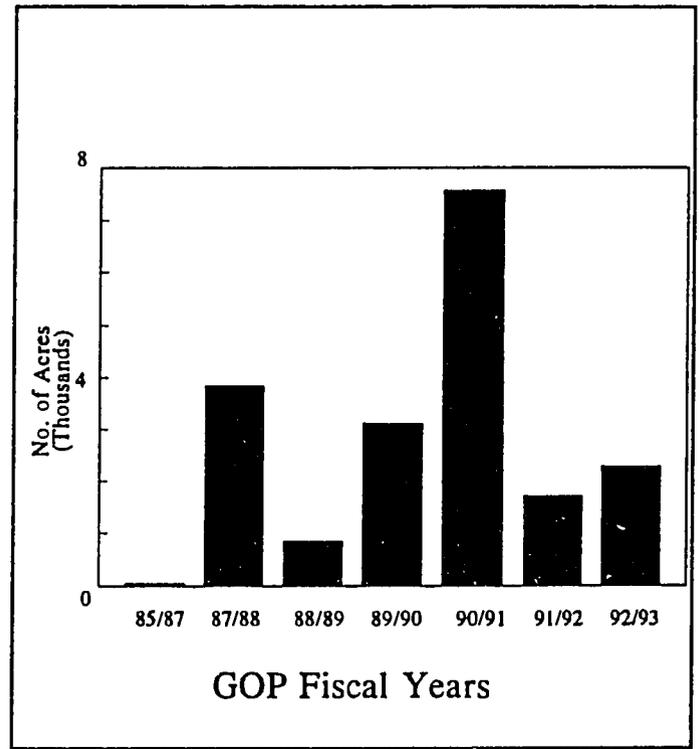
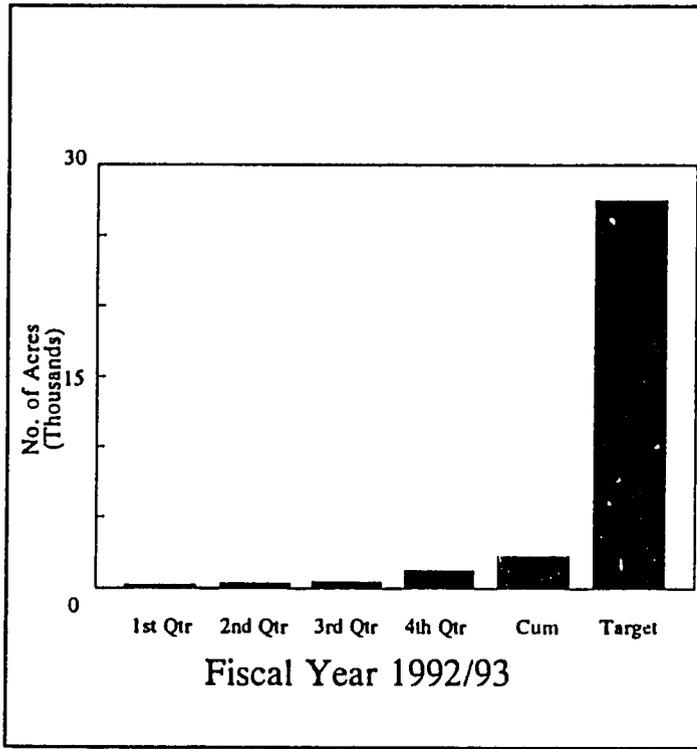
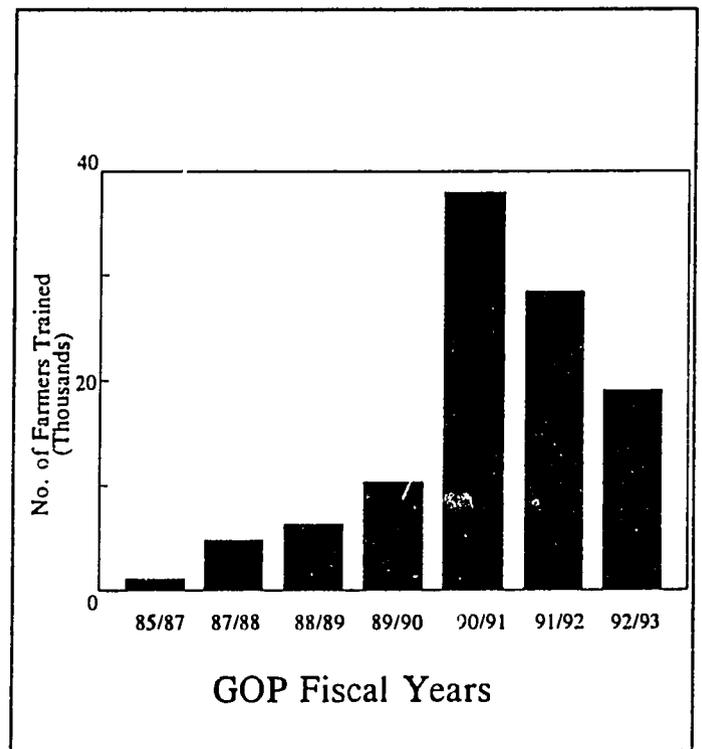
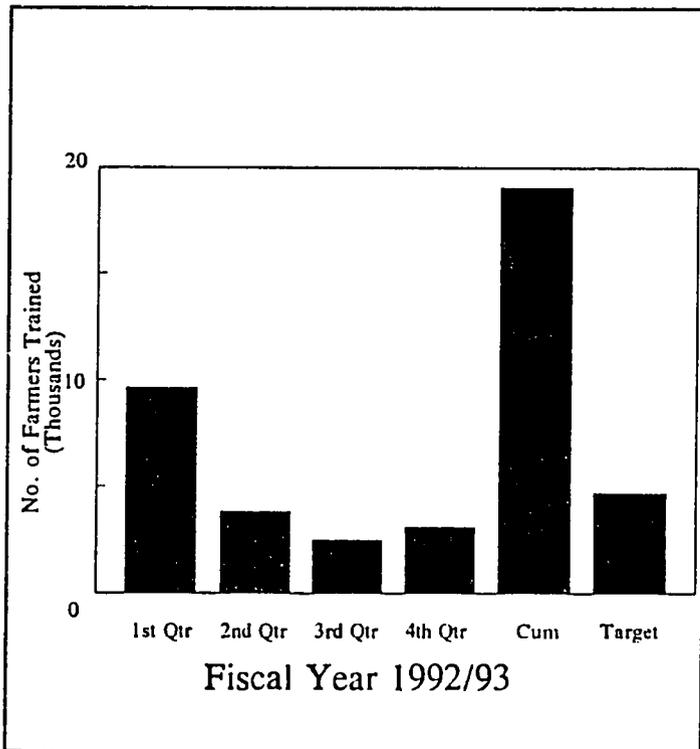


Figure 5. No. of Seedlings Raised in Farm Nurseries



**Figure 6. No. of Acres Treated under Soil Conservation and Land Development Activities**



**Figure 7. No. of Farmers Trained in Farm Forestry Activities**

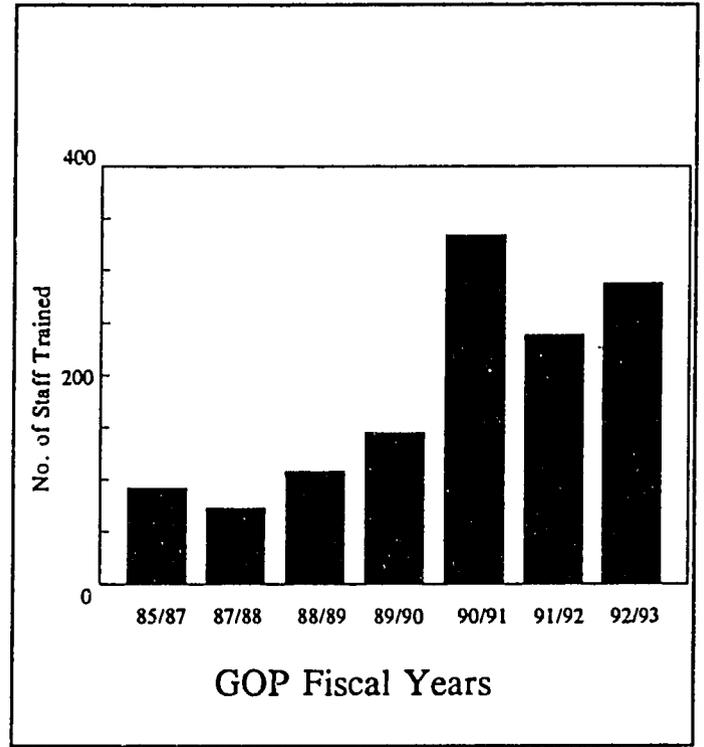
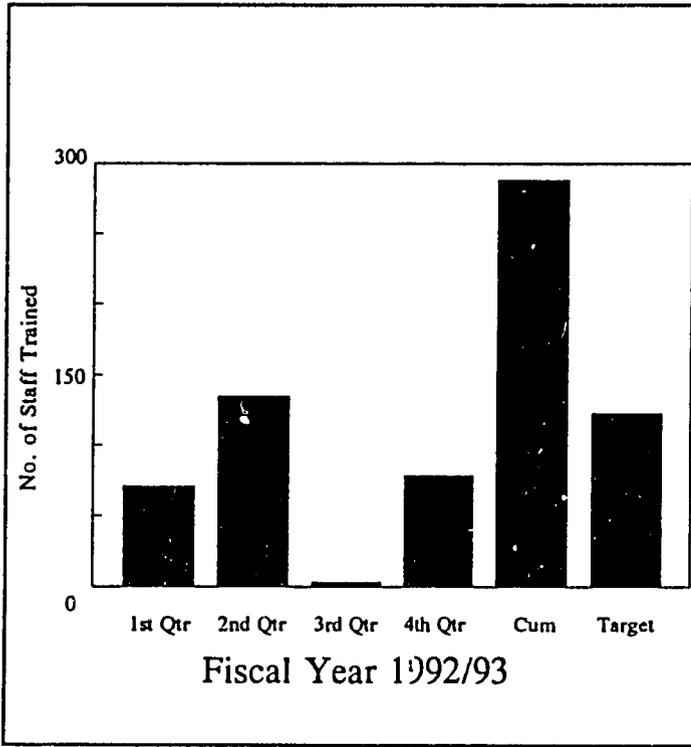
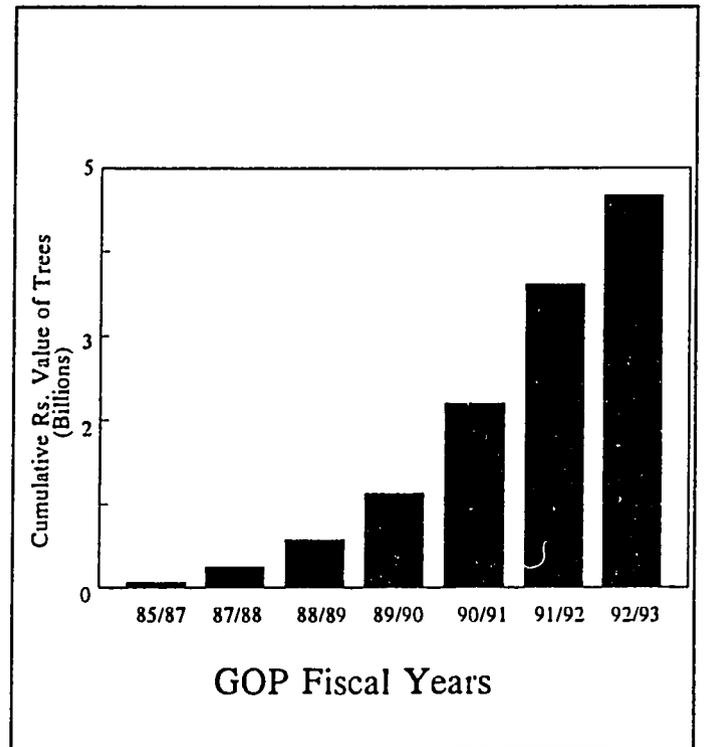
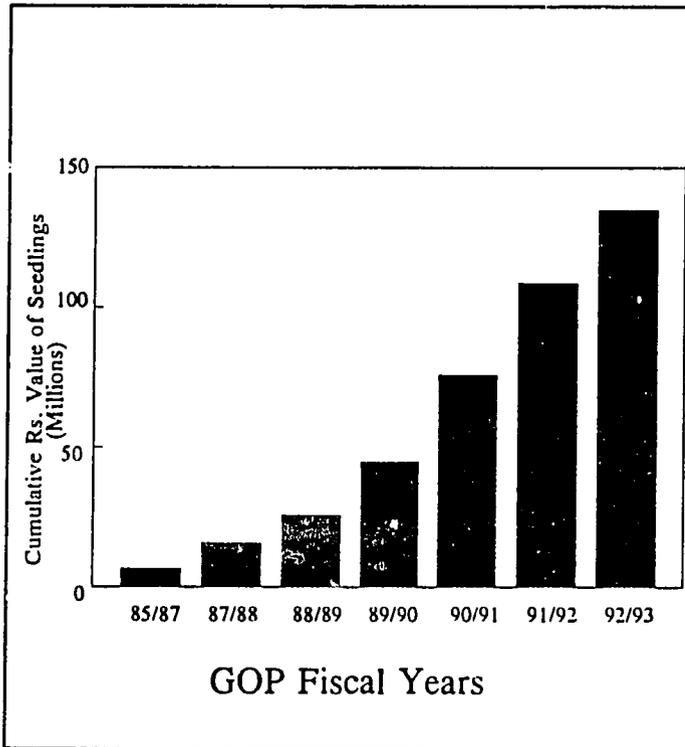


Figure 8. No. of Forest Department Staff Trained



(a) Cumulative Rs. Value of Farm Nursery Seedlings that have been Produced

(b) Cumulative Rs. Value of Trees at Time of Future Harvesting

Figure 9. Project Purpose Level Economic Indicators

**Table 1. Fourth quarter's accomplishments by geographic location.**

Name of Activity	4th Qtr ACHIEVE 1992-93	PUNJAB	SINDH	NWFP	BALUCH	P.F.I./ Federal	Other
<b>1. PLANTING</b>							
No. Farms	7,016	2,788	14	3,464	750		
No. Plants	7,816,676	4,704,876	736,800	1,975,000	400,000		
<b>2. NURSERY</b>							
No. Units	93	28	11	17	35	2	
No. Plants	3,595,750	600,000	564,750	1,086,000	700,000	645,000	
<b>3. LAND DEVELOPMENT</b>							
No. Acres	1,240	1,149			91		
<b>4. SOIL CONSERVATION</b>							
No. Acres	33			33			
<b>5. SINDH IRR. PLANTATION</b>							
Ac. Afforested	1,026	NA	1,026	NA	NA	NA	NA
Ac. Rehabilitated	0	NA		NA	NA	NA	NA
<b>6. RESEARCH</b>							
No. Projects	0	NA	NA	NA	NA		NA
<b>7. TRAINING</b>							
A. No. of Staff							
Overseas							
Sh. Term	1			1			
Lg. Term	1				1		
Tours	0						
Local							
M.Sc	0						
B.Sc	0						
Other	77	5	3	20	1	5	43
Tours	0						
B. No. of Farmers							
Tree Planting	3,018	2,788	150	55	25		
Nursery Tech.	66	28	13	15	10		
Land Development	13	11			2		
Soil Conserv.	2			2			
Mgmt/Mkt	0						
Motivators	0						
Tours	0						
<b>8. BUILDINGS</b>							
No. Offices	1	1					
No. Nursery Huts	0						
No. Res/Train Labs	Nil						
No. Hostels	0						
No. Residences	4	1		3			

**Table 2. 1992/93 fiscal year project targets and accomplishments by geographic location.**

Name of Activity	PC-1 Target 1992-93	Achieve. Thru 4qtr	PUNJAB	SINDH	NWFP	BALUCH	P.F.I./Federal/	Other
<b>1. PLANTING</b>								
No. Farms	27,469	18,043	9418	48	6527	1750	0	0
No. Plants	27,469,000	24,951,837	15447037	1103800	4556000	3845000	0	0
<b>2. NURSERY</b>								
No. Units	480	1,030	299	137	155	435	4	0
No. Plants	36,000,000	26,245,750	8923600	3002150	4912000	8700000	708000	0
<b>3. LAND DEVELOPMENT</b>								
No. Acres	25,260	1,988	1768	0	96	124	0	0
<b>4. SOIL CONSERVATION</b>								
No. Acres	2,228	293	62	0	66	165	0	0
<b>5. SINDH IRR. PLANTATION</b>								
Ac. Afforested	1,800	2,429	NA	2429	NA	NA	NA	NA
Ac. Rehabilitated	409	0	NA	0	NA	NA	NA	NA
<b>6. RESEARCH</b>								
No. Projects	5	5	NA	NA	NA	NA	5	NA
<b>7. TRAINING</b>								
A. No. of Staff								
Overseas								
Sh.Term	15	14	4	0	4	1	5	0
Lg.Term	4	3	1	0	0	1	1	0
Tours	10	2	1	0	0	0	1	0
Local								
M.Sc	20	20	13	3	3	1	0	0
B.Sc	19	19	11	2	5	1	0	0
Other	35	207	39	9	26	2	60	71
Tours	20	23	19	0	0	0	4	0
B. No. of Farmers								
Tree Planting	2,875	17,314	15019	300	122	1873	0	0
Nursery Tech.	225	969	258	139	22	550	0	0
Land Development	260	414	321	0	2	91	0	0
Soil Conserv.	225	43	31	0	2	10	0	0
Mgmt/Mkt	1,000	156	120	25	10	0	0	1
Motivators	50	25	0	0	6	19	0	0
Tours	75	123	0	0	13	110	0	0
<b>8. Buildings</b>								
No. Offices	2	2	2	0	0	0	0	0
No. Nursery Huts	2	2	2	0	0	0	0	0
No. Res/Train Labs	Nil							
No. Hostels	1	1	0	0	0	0	1	0
No. Residences	10	4	1	0	3	0	0	0

**Table 3. 1992/93 fiscal year project targets and accomplishments by quarter.**

Name of Activity	PC-1 Target 1992-93	Achievement in 1st Quarter	Achievement in 2nd Quarter	Achievement in 3rd Quarter	Achievement in 4th Quarter	Cumulat. Achieve. 1992-93	Cumulat. Achieve. as % of Target
<b>1. PLANTING</b>							
No. Farms	27469	5423	2339	3265	7016	18043	65.7%
No. Plants	27469000	7341595	5188337	4605229	7816676	24951837	90.8%
<b>2. NURSERY</b>							
No. Units	480	194	614	129	93	1030	214.6%
No. Plants	36000000	5514600	15231000	1904400	3595750	26245750	72.9%
<b>3. LAND DEVELOPMENT</b>							
No. Acres	25260	204	169	375	1240	1988	7.9%
<b>4. SOIL CONSERVATION</b>							
No. Acres	2228	32	168	60	33	293	13.2%
<b>5. SINDH IRR. PLANTATION</b>							
Ac. Afforested	1800	0	300	1103	1026	2429	134.9%
Ac. Rehabilitated	409	0	0	0	0	0	0.0%
<b>6. RESEARCH</b>							
No. Projects	5	1	4	0	0	5	100.0%
<b>7. TRAINING</b>							
<b>A. No. of Staff Overseas</b>							
Sh.Term	15	9	4	0	1	14	93.3%
Lg.Term	4	0	1	1	1	3	75.0%
Tours	10	0	2	0	0	2	20.0%
<b>Local</b>							
M.Sc	20	0	20	0	0	20	100.0%
B.Sc.	19	0	19	0	0	19	100.0%
Other	35	58	70	2	77	207	591.4%
Tours	20	4	19	0	0	23	115.0%
<b>B. No. of Farmers</b>							
Tree Planting	2875	9481	2795	2020	3018	17314	602.2%
Nursery Tech.	225	64	719	120	66	969	430.7%
Land Development	260	3	87	311	13	414	159.2%
Soil Conserv.	225	3	11	27	2	43	19.1%
Mgmt/Mkt	1000	55	90	11	0	156	15.6%
Motivators	50	5	13	7	0	25	50.0%
Tours	75	13	110	0	0	123	164.0%
<b>8. BUILDINGS</b>							
No. Offices	2	0	1	0	1	2	100.0%
No. Nursery Huts	2	0	2	0	0	2	100.0%
No. Res/Train Labs	Nil						
No. Hostels	1	0	1	0	0	1	100.0%
No. Residences	10	0	0	0	4	4	40.0%

**Table 4. Life of project targets and accomplishments by fiscal year.**

Name of Activity	LOP PC-1 Target	1985-93 PC-1 Target	1985/87 Achieved	1987/88 Achieved	1988/89 Achieved	1989/90 Achieved	1990/91 Achieved	1991/92 Achieved	1992/93 Achieved	1985-93	
										Achieved To Date	% Tar
<b>1. PLANTING</b>											
No. Farms	105500	93100	2273	8150	7913	21020	48665	24689	18043	130,753	140
No. Plants	133725000	111720000	1480773	4247018	7658221	12962302	24991741	33044501	24951837	109,336,393	98
<b>2. NURSERY</b>											
No. Units	1783	1501	99	153	299	789	1377	916	1030	4,663	311
No. Plants	133725000	112575000	6635468	9979969	10039210	22181830	30920600	32694660	26245750	138,697,487	123
<b>3. LAND DEVELOPMENT</b>											
No. Acres	99284	83600	2	3802	813	2715	5538	1400	1988	16,258	19
<b>4. SOIL CONSERVATION</b>											
No. Acres	7600	6400	50	35	35	405	2035	310	293	3,163	49
<b>5. SINDH IRR. PLANT.</b>											
Mi. Canal Const	2	2				1	1			2	100
Ac. Afforested	5400	4547					337	1220	2429	3,986	88
Ac. Rehabil.	1818	1531				152	217	64	0	433	28
<b>6. RESEARCH</b>											
No. Projects	50	40	3	14	13	1	7	6	5	49	123
<b>7. TRAINING</b>											
A. No. of Staff											
Overseas											
Sh.Term	117	99	10	8	28	10	23	7	14	100	101
Lg.Term	43	34		2	1	3	2	3	3	14	41
Tours	50	38	5	7	8	2	1		2	25	66
Local											
M.Sc	52	42				3	19	1	20	43	102
B.Sc.	76	61				8	20	1	19	48	79
Other	280	236	92	55	63	65	204	164	207	850	360
Tours	170	145		1	8	54	65	63	23	214	148
B. No. of Farmers											
Tree Planting	23000	19368	1114	4792	5978	9676	36806	26835	17314	102,515	529
Nursery Tech.	1780	1500				289	215	598	969	2,071	138
Land Dev.	990	840				25	55	99	414	593	71
Soil Conserv.	750	640				92	11	4	43	150	23
Mgmt/Mkt	2500	2000					629	589	156	1,374	69
Motivators	600	550		11	231	23	35	63	25	388	71
Tours	570	480		27	158	294	223	313	123	1,138	237
<b>8. BUILDINGS 1/</b>											
No. Offices	41 (27)	24				2	17	3	2	24	100
No. Nursery Hut	34 (20)	17				3	9	3	2	17	100
No. Res/Train L	4 ( 6)	Nil									
No. Hostels	3 ( 4)	2					1		1	2	100
No. Residences	90 ( 0)	74			1	5	5	12	4	27	36

1/ PC-1 Targets (USAID Commitment)

**Table 5. Punjab life of project accomplishments by fiscal year.**

Name of Activity	1985/86 Achieved	1986/87 Achieved	1987/88 Achieved	1988/89 Achieved	1989/90 Achieved	1990/91 Achieved	1991/92 Achieved	1992/93 Achieved	1985-93 Achieved
1. PLANTING									
No. Farms	112	761	2952	4320	6974	27704	11836	9412	64,077
No. Plants	54554	755327	1790773	3974403	6476904	14850127	15300207	15447037	58,649,332
2. NURSERY									
No. Units	8	49	100	209	566	992	566	299	2,789
No. Plants	886500	2122500	4074624	5500580	16759830	17328900	13023560	8923600	68,620,094
3. LAND DEVELOPMENT									
No. Acres		2	2952		2067	3458	627	1768	10,874
4. SOIL CONSERVATION									
No. Acres		50			399	1491	310	62	2,312
5. SINDH IRR. PLANT.									
Mi. Canal Const	NA								
Ac. Afforested	NA								
Ac. Rehabil.	NA								
6. RESEARCH									
On-Go Res/Demo									0
No. Completed					1	2	1		4
7. TRAINING									
A. No. of Staff									
Overseas									
Sh.Term		3	3	6	3	6	2	4	27
Lg.Term					1			1	2
Tours		1	2	1		1		1	6
Local									
M.Sc						9		13	22
B.Sc.						10		11	21
Other	18	21	20	25	32	79	37	39	271
Tours				4	20	22	8	19	73
B. No. of Farmers									
Tree Planting	112	802	3048	4529	7689	28696	20176	15019	80,071
Nursery Tech.					239	69	57	258	623
Land Dev.							7	321	328
Soil Conserv.						85	4	31	120
Mgmt/Mkt							609	496	1,225
Motivators				195				120	195
Tours				68			54	78	200
8. BUILDINGS									
No. Offices						1	12	1	16
No. Nursery Hut						3	6	2	11
No. Residences				1	3	2	8	1	15
No. Hostels									0
No. Res/Train L	NA								

Table 6. Sindh life of project accomplishments by fiscal year.

Name of Activity	1985/86 Achieved	1986/87 Achieved	1987/88 Achieved	1988/89 Achieved	1989/90 Achieved	1990/91 Achieved	1991/92 Achieved	1992/93 Achieved	1985-93 Achieved
<b>1. PLANTING</b>									
No. Farms	NA	NA	NA	NA	NA	NA		48	48
No. Plants	NA	NA	NA	NA	NA	NA		1103800	1,103,800
<b>2. NURSERY</b>									
No. Units	NA	NA	NA	NA	NA	NA	4	137	141
No. Plants	NA	NA	NA	NA	NA	NA	180000	3002150	3,182,150
<b>3. LAND DEVELOPMENT</b>									
No. Acres	NA	NA	NA	NA	NA	NA			0
<b>4. SOIL CONSERVATION</b>									
No. Acres	NA	NA	NA	NA	NA	NA			0
<b>5. SINDH IRR. PLANT.</b>									
Mi. Canal Const					1	1			2
Ac. Afforested						337	1220	2429	3,986
Ac. Rehabil.					152	217	64		433
<b>6. RESEARCH</b>									
On-Go Res/Demo	NA								
No. Completed	NA								
<b>7. TRAINING</b>									
<b>A. No. of Staff</b>									
<b>Overseas</b>									
Sh.Term		2	3	6	1	3			15
Lg.Term			1						3
Tours				1			2		1
<b>Local</b>									
M.Sc.					1	3		3	7
B.Sc.					2	3		2	7
Other			2	1	2	22	15	9	51
Tours					5	3	13		21
<b>B. No. of Farmers</b>									
Tree Planting	NA	NA	NA	NA	NA	NA	2737	300	3,037
Nursery Tech.	NA	NA	NA	NA	NA	NA		139	139
Land Dev.	NA	NA	NA	NA	NA	NA			0
Soil Conserv.	NA	NA	NA	NA	NA	NA			0
Mgmt/Mkt	NA	NA	NA	NA	NA	NA			0
Motivators	NA	NA	NA	NA	NA	NA	79	25	104
Tours	NA	NA	NA	NA	NA	NA			0
<b>8. BUILDINGS</b>									
No. Offices	NA	NA	NA	NA	NA	NA			0
No. Nursery Hut	NA	NA	NA	NA	NA	NA			0
No. Residences	NA	NA	NA	NA	NA	NA			0
No. Hostels	NA	NA	NA	NA	NA	NA	4		4
No. Res/Train L	NA	NA	NA	NA	NA	NA		NA	NA
									0

**Table 7. NWFP life of project accomplishments by fiscal year.**

Name of Activity	1985/86 Achieved	1986/87 Achieved	1987/88 Achieved	1988/89 Achieved	1989/90 Achieved	1990/91 Achieved	1991/92 Achieved	1992/93 Achieved	1985-93 Achieved
<b>1. PLANTING</b>									
No. Farms		1400	4625	2878	13030	20307	10673	6827	59,740
No. Plants		670892	1834565	3226000	4492000	8001800	6917100	4556000	29,698,357
<b>2. NURSERY</b>									
No. Units	10	16	46	81	148	171	48	155	675
No. Plants	400000	2061468	5375345	4144000	3297000	10409700	10111900	4912000	40,711,413
<b>3. LAND DEVELOPMENT</b>									
No. Acres			850	813	175	1680		96	3,614
<b>4. SOIL CONSERVATION</b>									
No. Acres			35	35	6	544		66	686
<b>5. SINDH IRR. PLANT.</b>									
Mi. Canal Const	NA								
Ac. Afforested	NA								
Ac. Rehabil.	NA								
<b>6. RESEARCH</b>									
On-Go Res/Demo	NA								
No. Completed	NA								
<b>7. TRAINING</b>									
<b>A. No. of Staff Overseas</b>									
Sh.Term		1		7		5	1	4	18
Lg.Term			1			2			3
Tours		2	2	1					5
<b>Local</b>									
M.Sc					1	4	1	3	9
B.Sc.					4	5		5	14
Other	15	14	11	16	14	31	15	26	142
Tours					15		12		27
<b>B. No. of Farmers</b>									
Tree Planting		200	1220	791	1987	7843	1251	122	13,414
Nursery Tech.					18	146	67	22	253
Land Dev.					25	55		2	82
Soil Conserv.					7	11		2	20
Mgmt/Mkt						20	6	10	36
Motivators			11	36	23	24	18	6	118
Tours			27	80	47	162	122	13	451
<b>8. BUILDINGS</b>									
No. Offices					1	3			4
No. Nursery Hut						2	1		3
No. Residences					1	2		3	6
No. Hostels									0
No. Res/Train L	NA								

**Table 8. Balochistan life of project accomplishments by fiscal year.**

Name of Activity	1985/86 Achieved	1986/87 Achieved	1987/88 Achieved	1988/89 Achieved	1989/90 Achieved	1990/91 Achieved	1991/92 Achieved	1992/93 Achieved	1985-93 Achieved
<b>1. PLANTING</b>									
No. Farms			573	715	1016	654	2180	1750	6,888
No. Plants			621680	457818	1993398	2139814	10827194	3845000	19,884,904
<b>2. NURSERY</b>									
No. Units		14	6	8	74	213	295	435	1,045
No. Plants		1000000	394000	300000	1940000	3000000	9284000	8700000	24,618,000
<b>3. LAND DEVELOPMENT</b>									
No. Acres					473	400	773	124	1,770
<b>4. SOIL CONSERVATION</b>								165	165
No. Acres								165	165
<b>5. SINDH IRR. PLANT.</b>									
Mi. Canal Const	NA								
Ac. Afforested	NA								
Ac. Rehabil.	NA								
<b>6. RESEARCH</b>									
On-Go Res/Demo	NA								
No. Completed	NA								
<b>7. TRAINING</b>									
<b>A. No. of Staff</b>									
<b>Overseas</b>									
Sh.Term			1	1	3	1	1	1	8
Lg.Term							1	1	2
Tours		1	2		1				4
<b>Local</b>									
M.Sc					1	3		1	5
B.Sc.					2	2	1	1	6
Other		4	7	8	2	10	18	2	51
Tours				1	5	2	8		16
<b>B. No. of Farmers</b>									
Tree Planting			524	658		267	2671	1873	5,993
Nursery Tech.					32		474	550	1,056
Land Dev.							92	91	183
Soil Conserv.								10	10
Mgmt/Mkt									0
Motivators						11	45	19	75
Tours					18	7	6	110	141
<b>8. BUILDINGS</b>									
No. Offices							2		4
No. Nursery Hut							1		3
No. Residences					1		2		2
No. Hostels	NA								
No. Res/Train L	NA								

Table 9. PFI/Federal/Other life of project accomplishments by fiscal year.

Name of Activity	1985/86 Achieved	1986/87 Achieved	1987/88 Achieved	1988/89 Achieved	1989/90 Achieved	1990/91 Achieved	1991/92 Achieved	1992/93 Achieved	1985-93 Achieved
1. PLANTING									
No. Farms	NA								
No. Plants	NA								
2. NURSERY									
No. Units	1	1	1	1	1	1	3	4	13
No. Plants	102000	63000	136000	94630	185000	182000	95200	708000	1,565,830
3. LAND DEVELOPMENT									
No. Acres	NA								
4. SOIL CONSERVATION									
No. Acres	NA								
5. SINDH IRR. PLANT.									
Mi. Canal Const	NA								
Ac. Afforested	NA								
Ac. Rehabil.	NA								
6. RESEARCH									
On-Go Res/Demo	1		10	9		4	3	5	32
No. Completed		2	4	4		1	2		13
7. TRAINING									
A. No. of Staff									
Overseas									
Sh.Term		3	2	8	3	8	3	5	32
Lg.Term				1	2			1	4
Tours		1	1	5	1			1	9
Local									
M.Sc									0
B.Sc.									0
Other	9	11	15	13	15	62	79	131	335
Tours			1	3	9	38	22	4	77
B. No. of Farmers									
Tree Planting									0
Nursery Tech.									0
Land Dev.									0
Soil Conserv.									0
Mgmt/Mkt							8	1	9
Motivators									0
Tours				10	229		28		267
8. BUILDINGS									
No. Offices	NA								
No. Nursery Hut	NA								
No. Residences	NA								
No. Hostels						1			
No. Res/Train L	NA	1	2						

**Table 10. No. of NGO grants by type and province.**

Province	Seedling Production		Type of Grant			TOTAL		
	No.	US \$	Environmental Awareness	Biodiversity	No.	US \$	No.	US \$
Punjab	12	88,100	2	5,700			14	93,800
Sindh	6	35,700					6	35,700
Balochistan					1	28,000	1	28,000
NWFP	2	37,900	1	15,400			3	53,300
AJ&K	1	7,700					1	7,700
Islamabad	1	8,100	5	76,400			6	84,500
Federal			1	9,100	1	12,000	2	21,100
<b>TOTAL</b>	<b>22</b>	<b>177,500</b>	<b>9</b>	<b>106,600</b>	<b>2</b>	<b>40,000</b>	<b>33</b>	<b>324,100</b>

## **PROGRESS TOWARD PROJECT GOALS AND PURPOSE**

This quarter the project completes its eighth Pakistan fiscal year. The success the Project is having on getting farmers to plant trees on their private farm lands has resulted in a significant energy and economic impact on rural Pakistan within the project area. A broad array of Pakistan's wood-using forest industries have begun to view farm forestry as a means of providing a sustainable supply of raw materials for their processing facilities.

Since 1985, 109 million trees have been raised on nearly 4,700 farm nurseries and these seedlings have been planted on more than 130,000 farms. At maturity (age 7), these trees will provide approximately 8.1 million metric tons of wood for use or sale by farm households. In addition to energy and home constructions use, new industrial markets are developing for the purchase of farm-grown wood that is being produced through this project. The wood produced on farms under this project has a nominal farm gate value of U.S. \$163 million.

Important from an institutional standpoint, social forestry schemes now being formulated throughout Pakistan, both by the federal and provincial governments and by foreign donors, are adopting the methods and implementation strategies used in the Forestry Planning and Development Project. Both the World Bank and the Asian Development Bank are examining with the federal and provincial governments the feasibility of funding farm forestry projects. The provincial forest department staffs are becoming increasingly comfortable and proficient in their role as technology transfer agents and are now beginning to put increasing emphasis on strengthening wood producer and wood user linkages. The departments are evaluating strategies to institutionalize their farm forestry activities with existing and modified administrative structures.

This report includes indicators which USAID uses to monitor progress towards project purpose. Figures 1, 4, 7, 8 and 9 graphically show the change in selected purpose level social/economic indicators over the life of the project.

## **PROJECT ACCOMPLISHMENTS DURING THE QUARTER**

### **A. INSTITUTIONAL AND MANPOWER DEVELOPMENT**

#### **1. Project Reporting**

- A draft Annual Work Plan for 1993/94 was formulated. This work plan covers the period 1 July 1993 to 30 September 1994 at which time the technical assistance contract terminates.

## 2. National Policy

- The Forestry Sector Master Plan Donors' Conference was held 18 April 1993 to identify support for forestry sector development activities proposed in the Master Plan. Officials of federal, provincial and AJK governments were in attendance as well as representatives from the World Bank, the Asian Development Bank and foreign embassies and development agencies.
- Federal and Provincial officers participated in the ECO Conference on Forestry held at PFI 22-24 May 1993 and assisted in the preparation of conference recommendations.
- The World Bank, in collaboration with the Government of Punjab and the Capital Development Authority (CDA) Islamabad, initiated the development of proposals to fund forestry sector projects in Punjab and CDA. Both proposals will emphasize farm forestry activities.

## 3. Training

### a. Long-Term Overseas Training

- Amjad T. Virk, Balochistan Province, completed his Ph.D. degree course work program in wildlife management at the University of Montana on 31 May 1993. He is now continuing his thesis research in Pakistan.  
Person-months: 17.0
- Ghulam R. Keerio, Sindh Province, began thesis preparation for his Ph.D. degree program in Agroforestry at the University of Idaho on 30 May 1993.
- Thirteen officers now are progressing towards M.Sc. degrees and two officers are progressing towards Ph.D. degrees in U.S. institutions.

### b. Long-Term In-Country Training

- Draft Forest Guard and Forester curricula have been prepared and are under review. These curricula, when adopted, will be used to guide the development of teaching materials for the Forest Schools in Pakistan.
- 67 individuals (50 men and 17 women) are continuing their 2-year B.Sc. degree programs in Farm Forestry at PFI, Peshawar on project provided fellowships.

- 42 individuals (33 men and 9 women) are continuing their 2-year M.Sc. degree programs in Farm Forestry at PFI, Peshawar on project provided fellowships.
- c. Short-Term Overseas Training
- One officer completed a 1-month USDA Graduate School course on Project Management.  
Person-months: 1.0
  - 4 officers are currently attending a 1-month course on Sustainable Natural Resource Development and Environmental Protection at the Univ. of Tenn.
  - 2 officers are currently attending an 8-week OICD course on Development and Operation of Agricultural Extension Programs.
  - 1 officer is currently attending a 6-week OICD course on Management of Agricultural Research.
  - 1 officer is currently attending a 6-week OICD course on Sustainable Development of Dryland Regions: Planning and Management.
  - 1 officer is currently attending a 6-week OICD course on Project Planning and Analysis for Agricultural and Rural Development.
- d. In-Country Technical Training
- Collaborated with the Malakand Social Forestry Project and NWFP Forest Department in the organization and implementation of a 3-day workshop on Forestry Extension for 44 forest officers from NWFP, Punjab, Sindh, Balochistan and Federal Organizations.  
Person-months: 6.0
  - Collaborated with the Punjab Forest Department in the implementation of a 2-day youth training workshop at Ghora Gali for 31 participants from throughout the Punjab province.  
Person-months: 2.8
  - Organized and conducted a 1-day review session in the use of computer software for the Monitoring and Evaluation Officers of the NGO Grant Unit.  
Person-months: 0.1
- e. In-Country Farm Forestry Training
- Organized and conducted half-day workshops for 3,018 farmers involved in tree planting activities in Punjab, NWFP, Sindh and Balochistan.  
Person-months: 68.6

- Organized and conducted one-day workshops for 60 farmers involved in managing farm nurseries in Punjab, NWFP, Sindh and Balochistan.  
Person-months: 3.0
- Organized and conducted one-day workshops for 15 farmers involved in land development and soil conservation activities in Punjab, Balochistan and NWFP.  
Person-months: 0.7

#### **4. Technical Assistance**

TAT members met with Officers, Project Directors and their staffs in Punjab, Sindh, NWFP and Balochistan provinces, at the Pakistan Forest Institute, and at the Punjab Forest Research Institute. The following highlights are in addition to the TAT's advising and training responsibilities.

- Provided technical guidance to the Punjab Forest Department during their preparation for the World Bank forestry sector project design mission.
- Provided technical background information to the World Bank forestry sector project design mission.
- Drafted opening and closing technical statements for use by the Ministry of Agricultural in conjunction with the ECO Conference on Forestry held at PFI 22-24 May 1993.
- Reviewed kissan nurseries to assess the Punjab Province request for additional funds to pay for contract nurseries in excess of current appropriation levels.
- Prepared a concept paper for USAID and the GOP proposing a remaining life-of-project kissan nursery policy for contracting farm nursery seedlings.
- Prepared a concept paper for USAID and the GOP on the use of NGOs to provide farm forestry extension support for the management and marketing of farm woodlot produce.
- Journal article on the "Forester's Perspectives on Social Scientists" was published.
- Journal article on "Pakistan - New Directions for Foresters and Farmers" was published.

- Presented a lecture on "People, Trees and Environment" at the Polytechnic Institute for Women, Islamabad.
- Provided technical information to a consultant collecting data on "Women's Education and Related Issues in Pakistan" in exchange for background material to be used in proposed project WID activities.
- Provided technical information on forestry and environmental issues to students from Quaid-e-Azam University.
- Donald Grebner, a Winrock Forestry Center staff member, began a 6-week consultancy funded by the Center to identify FP&D Project farm forestry successes and failures, and to document lessons which might be learned from this project.
- Gary G. Naughton completed his 47-month assignment (July 1989 - May 1993) as Field Demonstration/Outreach Forester. He departed Pakistan on May 4, 1993.  
Person-months: 47.0
- USAID and the Government of Pakistan formally extended the Winrock Technical Assistance Team contract to 30 September 1994.

## 5. Research Management

- In collaboration with Pakistan Forest Institute, an internal review of the institute's research programs was undertaken and Drs. B.A. Wani and C.R. Hatch prepared a report titled "PFI Research Review".

## B. OPERATIONAL ACTIVITIES

1. Barani/Irrigated Plantations - Balochistan, NWFP, Punjab and Sindh
  - a. Nursery Development
    - 91 farm forestry nurseries in Punjab, Sindh, Balochistan and NWFP distributed tree seedlings to farmers.
  - b. Tree Planting
    - 7.8 million tree seedlings were planted by farmers in Punjab, Balochistan, Sindh and NWFP.

c. Extension/Outreach/Recognition

- 3,099 farmers received training in the raising and planting of tree seedlings/cuttings, management and marketing of farm woodlot products, and in land and soil conservation methods in Punjab, Balochistan, Sindh and NWFP.

d. Land Development and Soil Conservation

- 1,273 acres of land development and soil conservation works were completed in the Punjab, Balochistan and NWFP.

e. Monitoring and Evaluation

- Completed collection and analysis of survey data on farm forestry nurseries in Punjab and NWFP. A report is in preparation which estimates the number of seedlings which are being sold directly to the general public by farmers, and highlights farmers and forest officers assessment of the project's private farm nursery program.
- Procurement of GIS equipment is in progress. Planning required to create a GIS capability at PFI has begun.
- Gohar Rehman, Database Cell Officer, resigned his post for permanent employment in the Forest Development Corporation, NWFP on 29 April 1993.
- Shaukat Ali Khan, Database Cell Officer, resigned his post for permanent employment in the Forest Development Corporation, NWFP on 29 April 1993.

2. Irrigated Plantations - Sindh

- 1,026 acres of afforestation works were completed this quarter.

3. NGO Activities

- The FP&D Grant Unit awarded grants to the following NGOs:

Social Welfare Association Matua, Punjab  
Seedling Production - \$2,000  
J&K Scientific Farming Foundation, AJ&K  
Seedling Production - \$7,700  
Rural Development Foundation, Islamabad  
Seedling Production - \$8,100  
Horticulture Foundation of Pakistan, Islamabad  
Environmental Awareness - \$18,400

SCOPE, Sindh  
 Seedling Production - \$7,700  
 Community Support Program, Punjab  
 Seedling Production - \$2,000  
 Pakistan Environmental Protection Fdn., NWFP  
 Seedling Production - \$6,500  
 National Farm Guide Council, Punjab  
 Seedling Production - \$15,900  
 Zubaida Welfare Association, Islamabad  
 Environmental Awareness - \$3,800  
 Pakistan Environmental Protect. Fdn., Islamabad  
 Environmental Awareness - \$4,800  
 Social Welfare Society Changa Bangial, Punjab  
 Seedling Production - \$2,100

#### 4. Special Studies

- o Use/Marketing/Economics of Farm Forestry Products
  - Evaluated 10 farm woodlots and prepared a report on their present condition and assessed past and proposed management treatments.
- o Farm Forestry Field Guides
  - Technical Note No. 13: Insects and Diseases of Poplars.  
 English document was prepared, printed and distributed.
  - Tree Farmers Guide No. 2: Pruning Timber Trees.  
 Urdu document was prepared, printed and distributed.
  - Tree Farmers Guide No. 3: Managing Coppice Sprouts.  
 Urdu document was prepared, printed and distributed.
  - Tree Farmers Guide No. 4: Farm Trees - Chinaberry.  
 Urdu document was prepared, printed and distributed.
  - Tree Farmers Guide No. 5: Farm Trees - Ber.  
 Urdu document was prepared, printed and distributed.
  - Tree Farmers Guide No. 6: Nursery Seedlings - grading, root pruning and hardening off.  
 Urdu document was prepared, printed and distributed.
  - Tree Farmers Guide No. 7: Estimating Weight of Standing Eucalyptus Trees.  
 Urdu document was prepared, printed and distributed.

- Tree Farmers Guide No. 8: Instructions for Raising a Poplar Nursery.  
Urdu document was prepared, printed and distributed.
- Foresters Field Guide No. 1: Suitable Poplar Clones for Different Ecological Zones in Pakistan.  
Urdu and English document was prepared, printed and distributed.
- Foresters Field Guide No. 2: Species Recommended for Different Edaphic and Climatic Sites and Method of Planting.  
Urdu and English document was prepared, printed and distributed.
- Foresters Field Guide No. 3: Establishing Seed Production Areas.  
Urdu and English document was prepared, printed and distributed.
- Foresters Field Guide No. 4: Expected Returns from Farm Grown Trees.  
English document was prepared, printed and distributed.
- o Farm Forestry Training Materials
  - Guide Book on Eucalyptus Nursery and Planting Guide.  
Urdu document was prepared, printed and distributed.
- o Degree Training Teaching Materials
  - "Review and Analysis of Forest Policies of Pakistan" by Abeed Ullah Jan.  
Published and distributed.
  - In Press  
"Forest Policy, Administration and Management in Pakistan" by Abeed Ullah Jan.

## 5. Research

- Completed Research Report No. 4: Assessment of Poplar Clones in the Forestry Planning and Development Project Kissan Nurseries.
- PFI completed a research study on the financial analysis of different tree crops in Pakistan.
- 32 research projects, studies and demonstrations are currently on-going.

## **C. CONSTRUCTION**

### **1. Provincial Office Facilities**

- Construction of the remaining RFO office in Punjab was completed.
- Construction contracts for 1 DFO and 2 RFO Offices, and 3 nursery huts in Sindh are being reviewed.

### **2. Provincial Research and Training Facilities**

- Construction contractor has been selected for the research and training units at Hyderabad.

### **3. Hostel Facilities**

- Construction of the hostel at Abbottabad is 8 percent complete.
- Construction contracts for the hostel at Ghora Gali are being reviewed.

## **PROJECT IMPLEMENTATION ISSUES**

### **A. ACTION ON THIS QUARTER'S ISSUES**

#### **World Bank Forestry Project Design Mission**

A World Bank project preparation mission arrived in Pakistan in early June and, in collaboration with the Punjab Province and the Capital Development Authority, initiated the design of a forestry sector development program. Since the Forestry Planning and Development Project will terminate in December 1994, importance has been placed on this activity as a mechanism which would provide the Government of Pakistan development assistance to continue social forestry activities at or above their current level.

#### **Reimbursement of Private Farmers for Unpaid Expenses Incurred under Nursery Contracts.**

Private nursery seedling production contracts for seedlings needed in the second and third quarters of FY 1992/93 were formalized during the first quarter of that fiscal year. Due to unforeseen budget reductions, the Punjab Forest Department does not have adequate appropriations to honor their existing private nursery seedling production contracts. Their delay in payment is placing severe hardship on these small, village level agri-businesses. The Punjab Forest Department, in collaboration with the O/IGF and the TAT, evaluated the problem and determined that nearly 170 farm nursery operators were due payments which totaled Rs. 5.5

million. Because of the critical nature of this activity relative to maintaining project momentum, the O/IGF and USAID authorized the TAT to directly pay farm nursery operators under PIL No. 63 for trees which have been certified for payment by the Punjab Forest Department.

## B. NEXT QUARTER'S ISSUES

**Scheduling Nursery Contracts and Establishing Seedling Prices**  
Because of the continuing possibility of mid-year budget reductions, the O/IGF and USAID decided it would be appropriate to implement procedures which would minimize having nursery contracts in excess of appropriated (released) funds. Since this issue is directly related to the contracted price of seedlings, they were jointly evaluated. It was decided that the project would continue to emphasize barani (rainfed) areas and that not more than two-thirds of the nursery contracts would be finalized during the first half of Pakistan fiscal year 1993/94. Furthermore, because of the gradual development of markets, the forest department contracted price for seedlings would be reduced to Rs. 0.75. The nursery operator is expected to directly collect Rs. 0.5 from the individual receiving the seedlings. During the next 12-months there is a need to closely monitor the project to assess whether or not these actions are adversely impacting the project.

**ACTION:** The O/IGF and provincial forest departments, in collaboration with the TAT, will closely monitor the number of seedling contracts with respect to budget allocations, and seedling pricing policies during the next 6-months. Problems will immediately be brought to the attention of the Project Monthly Review Committee.

### World Bank Forestry Project Appraisal Mission

Since the Forestry Planning and Development Project will terminate in December 1994, importance has been placed on identifying mechanisms which might provide the Government of Pakistan development assistance to continue social forestry activities at or above their current level. A World Bank Forestry Project Design Mission that began in June 1993 has added importance in this context. The project activities which currently are being prepared are scheduled for appraisal by the World Bank in September/October 1993.

**ACTION:** The O/IGF, USAID and TAT will facilitate, as appropriate, the World Bank's mission to appraise the forestry project for the Punjab Province and the Capital Devel

## PROPOSED PROJECT ACTIVITIES FOR NEXT QUARTER

### A. INSTITUTIONAL AND MANPOWER DEVELOPMENT

#### 1. Project Reporting and Coordination

- Finalize preparation of annual work plans.

#### 2. National and Provincial Policy

- Implementation of the National Policy for Forests, Wildlife, Watersheds and Rangelands, 1991 continues.

#### 3. Training

##### a. Long-Term Overseas

- M.Sc. and Ph.D. students continue degree training in U.S. forestry institutions.

##### b. Long-Term In-country

- Formal meetings of Forest School principals are held to review and finalize Forest Guard and Forester curricula.

- B.Sc. and M.Sc. scholarship students continue their two year program of forestry training.

##### c. Short-Term Overseas

- Participate in the 14th Commonwealth Forestry Conference 13-18 September 1993.
- Nominees continue their participation in overseas workshops.

##### d. In-Country Technical Training

- Conduct workshops on farm forest technologies.

##### e. In-Country Farm Forestry Training

- Conduct Farmer workshops on tree planting.
- Conduct Farmer workshops on managing and operating farm nurseries.
- Conduct Farmer workshops on the management, marketing and utilization of farm grown wood.

#### **4. Technical Assistance**

- TAT members will meet with Officers, Project Directors and their staffs in the Balochistan, Punjab, NWFP and Sindh provinces, at the Pakistan Forest Institute, and at the Punjab Forest Research Institute.

#### **5. Research Management**

- Prepare for the fall Research Review Committee meeting.

### **B. OPERATIONAL ACTIVITIES**

#### **1. Barani/Irrigated Plantations - Balochistan, NWFP, Punjab, and Sindh**

##### **a. Nursery Development**

- Farm nurseries distribute seedlings for the monsoon planting season.

##### **b. Tree Planting**

- Farmers plant trees on rainfed, irrigated and waterlogged lands.

##### **c. Extension/Outreach**

- Provide tree crop management information to farmers.

##### **d. Soil Conservation and Land Development**

- Support soil conservation and land development activities in the project.

##### **e. Monitoring and Evaluation**

- Complete report on survey of farm nurseries.
- Continue implementation of the consultancy report which identified equipment, facility and staff requirements for the establishment of a GIS capability within the O/IGF at PFI.

#### **2. Irrigated Plantations - Sindh**

- Continue rehabilitation and reforestation activities.

### **3. NGO Activities**

- Provide grants to Pakistan NGOs for activities which strengthen farm forestry programs.

### **4. Special Studies**

#### **o Use/Marketing/Economics of Farm Forestry Products**

- Facilitate interaction between farm forestry producers and industrial wood users on the marketing and utilization of farm grown wood.

#### **o Farm Forestry Field Guides**

- Prepare a technical note on the insects and diseases of Simal and on tree nursery insect and diseases.
- Prepare and distribute Farmer Guides on two farm forestry species.
- Prepare and distribute the Urdu version of a Forester Field Guide on the expected returns from farm grown trees.

#### **o Degree Training Teaching Materials**

Publish "Forest Policy, Administration and Management in Pakistan" by Abeed Ullah Jan.

### **5. Research**

- Continue review of on-going research projects and studies. Prepare publications on completed studies.

## **C. CONSTRUCTION**

### **1. Provincial Office Facilities**

- Construction initiated on offices and nursery huts in Sindh.

### **2. Provincial Research and Training Facilities**

- Construction initiated on research and training units at Hyderabad.

### **3. Hostel Facilities**

- Construction continues on the hostel at Abbottabad.
- Construction initiated on the hostel at Ghora Gali.

**ATTACHMENT A. TECHNICAL ASSISTANCE TEAM FINANCIAL SUMMARY FOR  
PHASE II.**

<u>Line Item</u>	<u>4-Year Budget Amount</u>	<u>30 Jun 93 Cumulative Expended</u>	<u>Percent Expended</u>
1. Salaries and Wages	\$1,248,070	\$1,047,485.75	83.93
2. Fringe Benefits	296,926	244,596.01	82.38
3. Overhead	723,687	608,430.85	84.07
4. Travel, Transportation & Per Diem	645,487	482,200.23	74.70
5. Allowances	327,378	265,057.85	80.96
6. Other Direct Costs	744,826	497,398.69	66.78
7. Local Training	244,850	192,068.49	78.44
8. Commodities	418,475	400,242.03	95.64
9. Subcontracts	78,271	78,271.00	100.00
Total Expended	\$4,727,970	\$3	80.71

**ATTACHMENT B. USAID AND GOP LIFE OF PROJECT FINANCIAL SUMMARY.**

<u>Line Item</u>	<u>Budgeted Amount</u>	<u>30 Jun 93 Cumulative Expended</u>	<u>Percent Expended</u>
<u>USAID</u>			
Technical Assistance	\$ 8,200,000	\$ 7,206,108	87.88
Training	3,360,000	2,394,965	71.28
Commodities	2,738,000	2,454,149	89.63
Other Costs	12,852,000	11,042,110	85.92
Evaluation	350,000	172,026	49.15
Total Reimbursable	\$27,500,000	\$23,269,358	84.62
<u>GOP</u>			
Non-Reimbursable	Rs. 178,000,000	Rs. 94,489,421	53.08

**ATTACHMENT C. PROJECT PUBLICATIONS PRODUCED DURING THE FOURTH  
QUARTER OF PAKISTAN FISCAL YEAR 1992/1993.**

**PUBLISHED ARTICLES**

Gary G. Naughton and Bashir A. Wani. 1993. Foresters' Perspectives on Social Scientists. Farm Forestry News 6(1):2.

Bashir A. Wani and Tahir W. Malik. 1993. Pakistan - New Directions for Foresters and Farmers. Wood Energy News 8(1):11-13.

**BOOKS**

Abeed Ullah Jan. 1993. Review and Analysis of Forest Policies of Pakistan. Pictorial Printers (Pvt) Ltd., Islamabad, Pakistan. 146 p.

**TECHNICAL NOTES**

M. Ismail Chaudhry, Zakauallah Chaudhry and M.I. Sheikh. 1993. Insects and Diseases of Poplars. Technical Note No. 13, (English) Forestry Planning and Development Project, 9 p.

**TREE FARMERS GUIDES**

Gary G. Naughton. 1993. Pruning Timber Trees. Tree Farmers Guide No. 2, (Urdu) Forestry Planning and Development Project, 2 p.

Gary G. Naughton. 1993. Managing Coppice Sprouts. Tree Farmers Guide No. 3, (Urdu) Forestry Planning and Development Project, 2 p.

Gary G. Naughton. 1993. Farm Trees - Chinaberry. Tree Farmers Guide No. 4, (Urdu) Forestry Planning and Development Project, 2 p.

Gary G. Naughton. 1993. Farm Trees - Ber. Tree Farmers Guide No. 5, (Urdu) Forestry Planning and Development Project, 2 p.

M.I. Sheikh. 1993. Nursery Seedlings - Grading, Root Pruning and Hardening Off. Tree Farmers Guide No. 6, (Urdu) Forestry Planning and Development Project, 2 p.

Gary G. Naughton. 1993. Estimating Weight of Standing Eucalyptus Trees. Tree Farmers Guide No. 7, (Urdu) Forestry Planning and Development Project, 1 p.

M.I. Sheikh. 1993. Instructions for Raising a Poplar Nursery. Tree Farmers Guide No. 8, (Urdu) Forestry Planning and Development Project, 4 p.

## FORESTERS FIELD GUIDES

- M.I. Sheikh. 1993. Suitable Poplar Clones for Different Ecological Zones in Pakistan. Foresters Field Guide No. 1, (English) Forestry Planning and Development Project, 2 p.
- M.I. Sheikh. 1993. Suitable Poplar Clones for Different Ecological Zones in Pakistan. Foresters Field Guide No. 1, (Urdu) Forestry Planning and Development Project, 2 p.
- M.I. Sheikh. 1993. Species Recommended for Different Edaphic and Climatic Sites and Method of Planting. Foresters Field Guide No. 2, (English) Forestry Planning and Development Project, 2 p.
- M.I. Sheikh. 1993. Species Recommended for Different Edaphic and Climatic Sites and Method of Planting. Foresters Field Guide No. 2, (Urdu) Forestry Planning and Development Project, 3 p.
- M.I. Sheikh. 1993. Establishing Seed Production Areas. Foresters Field Guide No. 3, (English) Forestry Planning and Development Project, 3 p.
- M.I. Sheikh. 1993. Establishing Seed Production Areas. Foresters Field Guide No. 3, (Urdu) Forestry Planning and Development Project, 3 p.
- M.I. Sheikh and Charles R. Hatch. 1993. Expected Returns from Farm Grown Trees. Foresters Field Guide No. 4, (English) Forestry Planning and Development Project, 4 p.

## TRAINING MATERIALS

- M.I. Sheikh. 1993. Eucalyptus Nursery and Planting Guide. Guide Book. (Urdu) Forestry Planning and Development Project, 16 p.

## RESEARCH REPORTS

- M.I. Sheikh. 1993. Assessment of Poplar Clones in the Forestry Planning and Development Project Kissan Nurseries. Research Report No. 4. Forestry Planning and Development Project, 5 p.

## UNNUMBERED REPORTS

- K.M. Siddiqui. 1993. Financial Analysis of Different Tree Crops in Pakistan. Forestry Planning and Development Project, Pakistan Forest Institute, Peshawar. 87 p.

## END OF TOUR REPORTS

- Gary G. Naughton. 1993. Field Demonstration Forester. End of Tour Report, Winrock International, 32 p.

**ATTACHMENT D. PROJECT PUBLICATIONS PRODUCED DURING PAKISTAN FISCAL  
YEAR 1992/1993.**

**PUBLISHED ARTICLES**

- Charles W. McKetta. 1990. The Wood Shortage in Pakistan: Hypothetical Contradictions. Pakistan Journal of Forestry 40(4):266-273.
- Michael R. Dove. 1992. The Development Counterpart as Development Subject: An Illustration from Pakistan's Forestry Sector. Culture and Agriculture Bulletin, No. 44:13-16.
- Michael R. Dove. 1992. Foresters' Beliefs about Farmers: A Priority for Social Science Research in Social Forestry. Agroforestry Systems 17(1):13-41.
- Michael R. Dove. 1992. Farmer Behavior and Forester Belief: Unraveling the Misconceptions. Farm Forestry News 5(4):1, 3-4.
- Gary G. Naughton and Bashir A. Wani. 1993. Foresters' Perspectives on Social Scientists. Farm Forestry News 6(1):2.
- Bashir A. Wani and Tahir W. Malik. 1993. Pakistan - New Directions for Foresters and Farmers. Wood Energy News 8(1):11-13.

**BOOKS**

- Michael R. Dove and Carol Carpenter (Eds.). 1992. Sociology of Natural Resources. Vanguard Books Pvt Ltd, Lahore, Pakistan. 458 p.
- Abeed Ullah Jan. 1993. Review and Analysis of Forest Policies of Pakistan. Pictorial Printers (Pvt) Ltd., Islamabad, Pakistan. 146 p.

**PROCEEDINGS**

- K.M. Siddiqui (Ed.). 1993. National Workshop on Tree Seed Technology. Proceedings, Pakistan Forest Institute, Peshawar, 97 p.

**TECHNICAL NOTES**

- M.I. Sheikh. 1992. Tree Planting and Extension. Technical Note No. 10, (Urdu and English) Forestry Planning and Development Project, 17 p.

- M.I. Sheikh. 1992. Suitable Tree Species for Different Agro-Ecological Regions and Civil Divisions of Pakistan. Technical Note No. 11, (English) Forestry Planning and Development Project, 24 p.
- Nazir Ahmad Malik and Gary G. Naughton. 1993. Economic Opportunities from Tree Farming. Technical Note No. 12, (English) Forestry Planning and Development Project, 19 p.
- M. Ismail Chaudhry, Zakauallah Chaudhry and M.I. Sheikh. 1993. Insects and Diseases of Poplars. Technical Note No. 13, (English) Forestry Planning and Development Project, 9 p.

#### TREE FARMERS GUIDES

- Gary G. Naughton. 1992. Pruning Timber Trees. Tree Farmers Guide No. 2, (Urdu and English) Forestry Planning and Development Project, 2 p.
- Gary G. Naughton. 1992. Managing Coppice Sprouts. Tree Farmers Guide No. 3, (Urdu and English) Forestry Planning and Development Project, 2 p.
- Gary G. Naughton. 1992. Farm Trees - Chinaberry. Tree Farmers Guide No. 4, (Urdu and English) Forestry Planning and Development Project, 2 p.
- Gary G. Naughton. 1992. Farm Trees - Ber. Tree Farmers Guide No. 5, (Urdu and English) Forestry Planning and Development Project, 2 p.
- M.I. Sheikh. 1993. Nursery Seedlings - Grading, Root Pruning and Hardening Off. Tree Farmers Guide No. 6, (Urdu and English) Forestry Planning and Development Project, 2 p.
- Gary G. Naughton. 1993. Estimating Weight of Standing Eucalyptus Trees. Tree Farmers Guide No. 7, (Urdu and English) Forestry Planning and Development Project, 2 p.
- M.I. Sheikh. 1993. Instructions for Raising a Poplar Nursery. Tree Farmers Guide No. 8, (Urdu and English) Forestry Planning and Development Project, 4 p.

#### FORESTERS FIELD GUIDES

- M.I. Sheikh. 1993. Suitable Poplar Clones for Different Ecological Zones in Pakistan. Foresters Field Guide No. 1, (Urdu and English) Forestry Planning and Development Project, 2 p.
- M.I. Sheikh. 1993. Species Recommended for Different Edaphic and Climatic Sites and Method of Planting. Foresters Field Guide No. 2, (Urdu and English) Forestry Planning and Development Project, 2 p.

M.I. Sheikh. 1993. Establishing Seed Production Areas. Foresters Field Guide No. 3, (Urdu and English) Forestry Planning and Development Project, 3 p.

M.I. Sheikh and Charles R. Hatch. 1993. Expected Returns from Farm Grown Trees. Foresters Field Guide No. 4, (English) Forestry Planning and Development Project, 4 p.

### TRAINING MATERIALS

Hans Zuuring. 1992. MYSTAT Workshop Notes. Teaching Manual. Forestry Planning and Development Project, in collaboration with the School of Forestry, University of Montana, 19 p.

Mark Behan. 1992. Lessons in Soil-Plant Water Relationships. Teaching Manual. Forestry Planning and Development Project, 161 p.

Mark Behan. 1992. Forest Ecology. Lecture Notes, Study Objectives and Field Exercise. Forestry Planning and Development Project, 85 p.

S.M. Yasin and S.M. Raza. 1992. Improving the Quality of Wood Produced from Eucalyptus Trees. Wood Quality Technical Note WQ: TN 1. (Urdu and English) Forest Products Research Division, Pakistan Forest Institute, 16 p.

Charles W. McKetta. 1992. Forest Valuation Theories and Applications. Lecture Notes, Study Objectives and Exercises. Forestry Planning and Development Project, 40 p.

Charles W. McKetta. 1992. Forest Economics and Forest Management. Lecture Outlines and Visual Aids. Forestry Planning and Development Project, 26 p.

Abeedullah Jan and M.I. Sheikh. 1993. Planting Technique. Training brochure. (Urdu, Sindhi and English) Forestry Planning and Development Project, 2 p.

M.I. Sheikh. 1993. Farmers and Tree Planting. Guide Book. (Urdu) Forestry Planning and Development Project, 32 p.

M.I. Sheikh. 1993. Eucalyptus Nursery and Planting Guide. Guide Book. (Urdu) Forestry Planning and Development Project, 16 p.

### RESEARCH REPORTS

M.I. Sheikh. 1993. Assessment of Poplar Clones in the Forestry Planning and Development Project Kissan Nurseries. Research Report No. 4. Forestry Planning and Development Project, 5 p.

## NEWSLETTERS

Forestry Planning and Development Project. 1992. Farm Forestry Newsletter. (English and Urdu) Vol. 4, Issue 1, 12 p.

Forestry Planning and Development Project. 1992. Farm Forestry Newsletter. (English and Urdu) Vol. 4, Issue 2, 10 p.

## UNNUMBERED REPORTS

Technical Assistance Team. 1992 & 1993. Quarter Project Reports. Forestry Planning and Development Project.

Technical Assistance Team. 1992 & 1993. Trip Reports. Forestry Planning and Development Project.

Technical Assistance Team. 1992. FY 93 Annual Work Plan. Forestry Planning and Development Project, 25 p.

Technical Assistance Team. 1993. Annual Survey of Training Report, 1 January - 31 December 1992. Forestry Planning and Development Project, 17 p.

Pakistan Forest Institute. Forestry Statistics of Pakistan. forestry Planning and Development Project, 17 p.

K.M. Siddiqui. 1993. Financial Analysis of Different Tree Crops in Pakistan. Forestry Planning and Development Project, Pakistan Forest Institute, Peshawar. 87 p.

## PAPERS

M.I. Sheikh. 1992. Windbreaks and Agroforestry in Pakistan. In "The Third International Windbreaks & Agroforestry Symposium Proceedings" during June 1991 at Ridgetown College, Canada. p. 224 - 227.

Rafiq Ahmad. 1992. Country Status Report on AgroForestry Systems Research & Development. Presented at the Second APAN Project Advisory Committee Meeting in Kathmandu, Nepal on 1-8 October 1992, 6 p.

Gary G. Naughton. 1993. Private Sector Strategy - Forestry Planning and Development Project (Phase II). In "Proceedings of the Forestry Extension Coordinators Meeting" held 24th to 26th February 1993 at Gilgit, Northern Areas, Pakistan. p. 44 - 46.

Tahir Wadood Malik. 1993. Pakistan Tree Farm Society. In "Proceedings of the Forestry Extension Coordinators Meeting" held 24th to 26th February 1993 at Gilgit, Northern Areas, Pakistan. p. 61 - 62.

Gary G. Naughton. 1993. Proposed Strategy for Support of NGO Activities Associated with the Forestry Planning and Development Project. In "Proceedings of the Forestry Extension Coordinators Meeting" held 24th to 26th February 1993 at Gilgit, Northern Areas, Pakistan. p. 65 - 68.

#### CONSULTANCY REPORTS

Hans Zuuring. 1992. Training Report for Instruction and Workshops on Research Methods. Consultant Report, Winrock International, 12 p.

Gary R. Archer. 1992. Recommendations on Geographic Information System Facilities for the Pakistan Forest Institute. Consultant Report, Winrock International, 15 p.

Mark Behan. 1992. Report on Forest Ecology Teaching Consultancy. Consultant Report, Winrock International, 16 p.

William Elam and J.A. Vozzo. 1992. National Workshop on Seed Technology. Consultant Report, Winrock International, 5 p. plus Appendices

Charles W. Mcketta. 1992. Report on Forest Economics and Management Teaching Consultancy. Consultant Report, Winrock International, 6 p.

Richard Bottger. 1993. NGO Management. Consultant Report, Winrock International, 10 p.

B.F. (Ted) Swain. 1993. Veneer Slicing Consultancy. Consultant Report, International Executive Service Corps, 2 p.

#### END OF TOUR REPORTS

George M. Blake. 1992. Education, Training and Research Advisor. End of Tour Report, Winrock International, 23 p.

Gary G. Naughton. 1993. Field Demonstration Forester. End of Tour Report, Winrock International, 32 p.

#### MISCELLANEOUS MATERIALS

Winrock International. 1992. Color Brochure. Forestry Planning and Development Project, 6 p.

**ATTACHMENT E. NGO GRANTS AWARDED AND COMPLETED DURING PAKISTAN  
FISCAL YEAR 1992/1993.**

**AWARDED**

Pakistan Tree Farm Society Islamabad	Environmental Awareness	\$20,000
Fountain House Lahore Punjab	Seedling Production	\$10,000
National Farm Guide Council Punjab	Seedling Production	\$7,600
World Wide Fund for Nature Northern Areas	Biodiversity	\$12,000
World Wide Fund for Nature Balochistan	Biodiversity	\$28,000
Orangi Pilot Project Sindh	Seedling Production	\$6,300
Social Welfare Association Matua Punjab	Seedling Production	\$2,000
Saiban Action Res. for Shelter Sindh	Seedling Production	\$4,900
Sarhad Rural Support Corporation NWFP	Seedling Production	\$31,400
Pakistan Tree Farm Society Punjab	Seedling Production	\$12,700
Pakistan Tree Farm Society Islamabad	Environmental Awareness	\$29,400
Pakistan Youth Council Sindh	Seedling Production	\$2,700
Pakistan Envir. Protection Fdn. NWFP	Environmental Education	\$15,400
Anjuman-i-Kasht Karan Sindh	Seedling Production	\$7,500
Fountain House Lahore Punjab	Seedling Production	\$1,200
Hafizabad Literacy Promo. Program Punjab	Environmental Training	\$1,200
National Farm Guide Council Punjab	Seedling Production	\$14,400
Belour Adv. & Social Devel. Organ. Northern Areas	Environmental Awareness	\$9,100
Sindh Agri. & Forest Workers Coop. Sindh	Seedling Production	\$6,600
Pakistan Rural Support Program Punjab	Seedling Production	\$13,600
Dar-ul-Falah Faisalabad Punjab	Seedling Production	\$4,600
World Wide Fund for Nature Punjab	Environmental Awareness	\$4,500
Social Welfare Association Matua Punjab	Seedling Production	\$2,000
J&K Scientific Farming Foundation AJ&K	Seedling Production	\$7,700

Rural Development Foundation Islamabad	Seedling Production	\$8,100
Horticulture Fdn. of Pakistan Islamabad	Environmental Awareness	\$18,400
Soc. Cons. & Prot. Envir.(SCOPE) Sindh	Seedling Production	\$7,700
Community Support Program Punjab	Seedling Production	\$2,000
Pakistan Envir. Protection Fdn. NWFP	Seedling Production	\$6,500
National Farm Guide Council Punjab	Seedling Production	\$15,900
Zubaida Welfare Association Islamabad	Environmental Awareness	\$3,800
Pakistan Envir. Protection Fdn. Islamabad	Environmental Awareness	\$4,800
Soc. Welfare Assn. Changa Bangial Punjab	Seedling Production	\$2,100

**COMPLETED**

Pakistan Tree Farm Society Islamabad	Environmental Awareness	\$19,916
Hafizabad Literacy Promo. Program Punjab	Environmental Training	\$1,150
World Wide Fund for Nature Punjab	Environmental Awareness	\$4,252