Project Design Matrix (PDM), Plan of Operation (PO)

& Monitoring

of

Social Forestry Extension Model Development Project

for

Semi-Arid Area

Contents

- 1. PDM, PDM(Revised)
- 2. Revised PO
- 3. PO (2nd Revision)
- 4. Project Monitoring Chart
- 5. Record of the 2nd Monitoring (Description of Each Item)

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Narrative Summary	Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal The inhabitants of semi-arid areas in Kenya are equipped with appropriate techniques to plant trees and management them	- Number of inhabitants who adopted more appropriate method of social forestry extension in semi-arid areas	Sample questionnaire survey	- Government policy to promote farm forestry is not changed - Adequate number of extension agents and their operation fund are timely provided - Severe natural disasters, such as drought, does not occur
Project Purpose A social forestry extension model for semi-arid areas is developed through establishment of farm forest by local residents	- Preference by farmers - Preference by extension agents - Cost effectiveness - Replicability to other semi-arid areas	 Interviews to farmers Interviews to extension agents Project document Assessment by a third party 	 Need for tree products and social forestry techniques and extension services by farmers does not change
Outputs L Practical techniques for planting and tending trees for establishment of farm forest are provided 2. Appropriate methods of establishing farm forests are developed	No. of techniques adopted for farm forest establishment No. of technical reports No. of successful farm forests No. of unique/original findings on methods of farm forest establishment	1 Project document - Technical reports 2 Project document - Project document	 Natural conditions, such as rain fall patters, does not change greatly Severe natural disasters, such as drought, does not occur Inputs form both sides are timely and adequately provided
Information on social forestry extension is shared by the people and other related organizations	No. of recipients who utilize and share the information	3 Sample questionnaire survey	
 Activities Develop practical technique for establishment of farm forests in semi-arid areas 1.1. Develop technology in the Pilot Forest 1.2. Verify practical technologies by on-farm experiments 1.3. Prepare technical manuals Design, establish, monitor and evaluate farm forests 1.1. Establish farm forest in SFTP (II) target area 2.2. Collect and analyze information concerning establishment of farm forest 2.3. Formulate strategic plan for promoting farm forest establishment by local residents 2.4. Establish farm forests 2.5. Establish farmer to farmer extension system 2.6. Improve demonstration plots in Tiva (DEMO II) 2.7. Feedback of technical knowledge of planting and tending into the technology development 2.8. Intermediate evaluation 2.9. Review of plan of farm forest establishment 2.10. Final evaluation and compilation of the results of the activities 3. Collect, synthesize and disseminate information on social forestry extension 3.1. Make preparations for information activities 3.2. Hold regular meetings 3.3. Collect and analyze of information from outside sources 3.4. Collect of information accumulated through project activities 3.5. Develop extension materials on establishment of farm forest for extension agents 3.6. Disseminate information through publications and 	3. Equipment 4. Sharing of running expenses - for plantation - for extension	Kenyan Side 1. Counterparts and staff - Project Director - Project Manager - Project Coordinator - Counterparts PF Manager Extension Manager Forest Ext. Officer Training Manager Training Officer Research Officer - Administrative staff Clerks Drivers & Laborers Other supporting staff 2. Land & buildings 3. Running expenses for the implementation of the project	insects/diseases - Inputs form both sides are timely and adequately provided

Activities	Targets/Indicators			Schedule			Responsible persons in the project	Inputs	Remarks
		1998	1999	2000	2001	2002	* *	=	
		1 11 111 1	V I II III	IV I II III IV	1 11 111 17	1 11 111 11			
Develop practical technique for establishment of farm for	est in semi-arid areas								
1 Develop technology in the Pilot Forest									
1.1.1 Development of basic tree planting technologies									
1.1.1.1 Seeds germination	Melia volkensii, Terminalia brownii						Muok, Kyalo, Hayashi	labour, fuel, tools, consumable	
1.1.1.2 Root system	root pattern and drought tolerant			STATE OF THE PARTY			Kyalo, Muok, Hayashi	labour, fuel, tools, consumable	
1.1.1.3 Insect/disease control	Degree of damage comparison	446013					Kyalo, Muok,kigwa, Hayashi,Mihara	labour, consumable	Modification of responsib
1.1.2 Verification of intensive planting management		1111							- 347 SSGA491
1.1.2.1 Water catchment	optimum type, size / growth, erosion	G	ENG.				Kigwa, Muok, Mihara	labour	
1.1.2.2 Mulching	necessity of mulching / growth						Kigwa, Muok, Mihara	labour	
1.1.2.3 Weeding	optimum frequency / growth, survival		100 A 100 A				Kigwa, Muok, Mihara	labour	
	clear weeding ,slash / growth, survival / 0.								
1.1.2.4 Water regime									1
1.1.2 4.1 Soil moisture	treatment-soil moisture relations / growth						Kigwa, Muok, Mihara	labour, machine, fuel, seedling, short term expert	
1.1.2.4.2 Sun heat shield effect and mulching	effect of mulching / growth / 0.78ha	507					Kigwa, Muok, Mihara	labour, machine, fuel, seedling, short term expert	11
1.1.2.4.3 Water stress	pruning-water stress relations / correlation						Kigwa, Muok, Mihara	labour, short term expert	
1.1.2 4.4 Evapo-transpiration	water consumption / sap flow					No.	Kigwa, Muok, Mihara	labour, short term expert	
1.1.3. Verification of planting technology		animalatas Auturta	Address	and plantage are	and the second second second	atto former service			
1.1.3.1 Monitoring of existing spacing plot	optimum spacing / growth, survival	ZGA T		100 100 100	100 590 100	14.14	Kigwa, Muok, Mihara	labour	
1.1.3.2 Study pruning of existing plot	effect of pruning / growth, survival		TO A STATE OF THE PARTY OF THE		To the contract of		Kigwa, Muok, Mihara	labour,consumable	
1.1.3.3 Study thinning of existing plot	effect of thinning / growth, die-back						Kigwa, Muok, Mihara	labour.consumable	
1.1.3.4 Study coppicing of existing plot	coppicing ability / no. of coppices						Kigwa, Muok, Mihara	labour	
1.1.4 Establishment of Wildfruits demonstration	establishing orchard, experiment plan						Kigwa, Muok, Mihara	labour, machine, fuel, seeding, consumable	this activities particularly w
orchard	and tending / 20 spp. / 2.08ha	LA LINE SELECTION	AU SIDIL (MAAR FEED)	AND PROPERTY AND PARTY.				•	be implemented with strong
									initiatives of Kenyan c/p
1.1.5 Suporting activity of technology development							l	'	- ASS 51
1.1.5.1 Weather monitoring data	weather data						Kyalo, Kigwa, Auka, Muok, Hayashi, Mihara	labour, monitoring, tools	
1.1.5.2 Collection of references	references / no. of references						Kigwa, Kyalo, Auka, Mihara, Hayashi	consumable	
1.1.5.3 Management of experimental plot	road management, experimental plot	CAN SECURE					Kigwa, Auka, Mihara	labour, machine, fuel, consumable	
and road network	management / 14.5km	At any at an area		APPEL OF THE PARTY					
1.1.5.4 Seed collection, production and supply	necessary no. / no. of seedlings	103 103 103					Kyalo, Hayashi	labour, fuel, seed purchase, tools, materials	
of seedling	necessary weight / weight of seed collected	d		Clare of the Control of the					
1.1.5.5 Management of Tiva arboretum	no. of spp. / weight of seed supplied		a Pri Entre			SCHOOL STATE OF	Kyalo, Hayashi	labour, fuel, tools, consumable	
1.1.5.6 Protection of human and animal damage	decrease of damage / number of damages		101.10				Kigwa, Kyalo, Mihara, Hayashi	labour, fuel, equipment, consumable	
1.1.5.7 Study on work efficiency	/ 1,000ha work efficiency table				24		Kigwa, Kyalo, Mihara, Hayashi	labour, consumable	
1.1.6 Response to challenges in on-farm and extension	Feedback received and retested						Kigwa, Muok, Auka, Mihara	labour, fuel, equipment, consumable	New item

Note: 1.1st quarter is January to March, 2nd quarter is April to June, 3rd quarter is July to September and 4th quarter is October to December.

The project commenced on 26th November 1997.

^{2.} First name in the row is the activity learder.

Narrative Summary	Verifiable Indicators	Means of Verification	Important Assumptions
Overall Goal The inhabitants of semi-arid areas in Kenya are equipped with appropriate techniques to plant trees and management them	- Number of inhabitants who adopted more appropriate method of social forestry extension in semi-arid areas	Sample questionnaire survey	- Government policy to promote farm forestry is not changed - Adequatenumber of extension agents and their operation fund are timely provided - Severe natural disasters, such as drought, does not occur
Project Purpose			
A social forestry extension model for semi-arid areas is developed through establishment of farm forest by local residents	- Preference by farmers - Preference by extension agents - Cost effectiveness - Replicability to other semi-arid areas	- Interviews to farmers - Interviews to extension agents - Project document - Assessment by a third party	 Need for tree products and social forestry techniques and extension services by farmers does not change
Outputs 1. Practical techniques for planting and tending trees for	1 No. of techniques	1 Project document	- Natural conditions, such
2. Appropriate methods of establishing farm forests are developed 3. Information on social forestry extension is shared by the people and other related organizations	adopted for farm forest establishment No. of technical reports No. of successful farm forests No. of unique/original findings on methods of farm forest establishment No. of recipients who utilize and share the	- Technical reports 2 Project document - Project document - Project document 3 Sample questionnaire survey	as rain fall patters, does not change greatly - Severe natural disasters, such as drought, does not occur - Inputs form both sides are timely and adequately provided
Activities	information Inpu	,	
1. Develop practical technique for establishment of farm	Japanese Side	Kenyan Side	- Severe natural disasters,
forests in semi-arid areas 1.1. Develop technology in the Pilot Forest 1.2. Verify practical technologies by on-farm experiments 1.3. Prepare technical manuals Design, establish, monitor and evaluate farm forests 1.1. Establish farm forest in SFTP (II) target area 2.2. Collect and analyze information concerning establishment of farm forest 2.3. Formulate plan of farm forest establishment 2.4. Establish farm forests 2.5. Feedback technical knowledge of tree planting and tending into technology development 2.6. Intermediate evaluation 2.7. Review of plan of farm forest establishment 2.8. Establish farm forests by extension agents 2.9. Final evaluation and compilation of the results of the activities	1. Experts 6 long-term experts in the following fields - Chief Advisor - Coordinator - Technology Development - Farm Forest Establishment (technology) - Farm Forest Establishment (extension) - Extension method and information 2 - 3 short-term experts per year 2. Training in Japan 2 - 3 counterparts per	1. Counterparts and staff - Project Director - Project Manager - Project Coordinator - Counterparts PF Manager Extension Manager Forest Ext. Officer Training Manager Training Officer Research Officer - Administrative staff Clerks Drivers & Laborers Other supporting staff 2. Land & buildings 3. Running expenses for the implementation of	such as drought, does not occur - Cooperation by the farmers and related institutions are obtained - Planted trees for experiment are not stolen nor damaged by animals/ insects/diseases - Inputs form both sides are timely and adequately provided
3. Collect, synthesize and disseminate information on	year 3. Equipment 4. Sharing of running	the project	Preconditions - Inputs form both sides

Activities	Targets/Indicators					Scl	hedule						Responsible persons in the project	Inputs	Remarks
			98	_	999		2000	\perp	2001		2002				
		1 11	111 17	111	1111 1	V 1	11 111	IV I	11 111	17 1	11 1	II IV			
Develop practical technique for establishment of farm for	rest in semi-arid areas	1		11	11					- 1	11			•	
1 Develop technology in the Pilot Forest	'	1	11	Ш				1							
		1		Ш	11	1	1 1				11				·
1.1.1 Development of basic tree planting technologies		L		.						1					
1.1.1.1 Seeds germination	Melia volkensii, Terminalia brownii							 						labour, fuel, tools, consumable	
1.1.1.2 Root system	root pattern and drought tolerant							****	**********		11		11,010, 1-1000, 110,0000	tabour, fuel, tools, consumable	
1.1.1.3 Insect/disease control	Degree of damage comparison		********	****	*****	***		***		****			Kyało, Muok, Hayashi	labour, consumable	
			11		11		111		1						ľ
1.1.2 Verification of intensive planting management		2275	333	11	1822	21	55-8 1851	###		H			Miles North Mode	labuur	change of schedule
1.1.2.1 Water catchment	optimum type, size / growth, erosion							2					Trights, second conn	labour	change of schedule
1.1.2.2 Mulching	necessity of mulching / growth		12	i i		14 B	多器	蒸 25	51 53	26			INIGHE, WILLOW, I TOUR	Inform	change of schedule
1.1.2.3 Weeding	optimum frequency / growth, survival				5013 x2000 S	COA COA		1200 1000	***********************				Highe, much, mose	· · · · · · · · · · · · · · · · · · ·	
LL2 LW-ser surium	clear weeding ,slash / growth, survival / 0.5	10112													
1.1.2.4 Water regime	treatment-soil moisture relations / growth		a sare	G GESS IN	33 (33 d)	13 N	107 624	25 42	1001250	- A - C			Kigwa, Muok, Noda	labour, machine, fuel, seedling, short term expert	change of schedule
1.1.2.4.1 Soil moisture 1.1.2.4.2 Sun heat shield effect and mulching	effect of mulching / growth / 0.78ha		183		à d	i i	羅恩					٦	Kiewa, Muok, Noda	tabour, machine, fuel, seedling, short term expert	change of schedule
1.1.2.4.3 Water stress	pruning-water stress relations / correlation	[**		<u> </u>	- 2	3 2	30	副数	23 87	772	11		Kigwa, Muok, Noda	labour, short term expert	change of schedule
1.1.2.4.4 Evapo-transpiration	water consumption / sap flow	11	1 1					-24 GX		1200 E	3 G2 7		Kigwa, Muok, Noda	labour, abort term expert	change of schedule
Title II I Stape Manaphanen			11	1 [П							
1.1.3. Verification of planting technology				11		l									
1.1.3.1 Monitoring of existing spacing plot	optimum spacing / growth, survival			11		8	100	12 2	9 2	20	- 3	3	Kigwa, Muok, Noda	labour	change of schedule
1.1.3.2 Study pruning of existing plot	effect of pruning / growth, survival				_	E	SPICE TOTAL	163 LC	100 555	38 2	2000		<u>Kigwa</u> , Muok, Noda	labear,censumable	change of schedule
1.1.3.3 Study thinning of existing plot	effect of thinning / growth, die-back						وعالمتان				*****	Щ	Kigwa, Muok, Noda	lalang,consumable	
1.1.3.4 Study coppicing of existing plot	coppicing ability / no. of coppices			233	24 (57)	(2) A1		1001 00			11		Kigwa, Muok, Noda	labour	change of schedule
		1		11	11			H		Н				•	
			المداد	23 432	***	×250 22	252.51.62	a.c. 22	5 276 650		er cos s	25161			this activities particularly w
1.1.4 Establishment of Wildfruits demonstration	establishing orchard, experiment plan			8 201	44	die Ci	100	165 2		tita 2	200	33E	Kigwa, Muok, Noda	labour, machine, fuel, seeding, consumable	be implemented with strong
orchard	and tending / 20 spp. / 2.08ha	11		11	11	-			11	H	11	1			initiatives of Kenyan c/p
				11	- 1 1			Н		H	11				change of schedule
1.1.5 Suporting activity of technology development			*****		***	***			****			***	Kyalo <u>, Kiewa,</u> Auka, Muok, Hayashi, Noda	labour, monitoring, tools	Thangs to store
1.1.5.1 Weather monitoring data	weather data											₩	l • — • · · · · · · · · · · · · · · · · ·	consumable	
1.1.5.2 Collection of references	references / no. of references												Kiewa, Kyalo, Auka, Noda, Hayashi	labour, machine, fuel, consumable	
1.1.5.3 Management of experimental plot	road management, experimental plot					2242						*87(38)	Kigwa, Auka, Noda	Idana, methic, suci, cumunero	
and road network	management / 14.5km	- The state of the	**********	****		**						***	Kyalo, Hayashi	labour, fuel, seed purchase, tools, materials	
1.1.5.4 Seed collection, production and supply	necessary no. / no. of seedlings	B338855		*****	***************************************	****	808888888	3886	************	****	*********	2000	it juid, tiujusiii	The state of the s	1
of seedling	necessary weight / weight of seed collecte	a 				**							Kyalo, Hayashi	labour, fuel, tools, consumable	
1.1.5.5 Management of Tiva arboretum	no. of spp. / weight of seed supplied											****	Kiewa, Kyalo, Noda, Hayashi	labour, fuel, equipment, consumable	Ì
1.1.5.6 Protection of human and animal damage	decrease of damage / number of damages	1	88 5888	*****	*********	***	***********	2000 T	*******	**************************************	-	××××××××××××××××××××××××××××××××××××××	angual rejuici riconi sinjami		
1.1.5.2 Study on mode officiana	/ 1,000ha			****		**			*				Kigwa, Kyato, Noda, Hayashi	labour, consumable	
1.1.5.7 Study on work efficiency	work efficiency table		***************************************	*****	ospisso.	****	×100000000	~~~~	٦					1	
ı								Н		$\ \ $			1		1
	1	11							1				1		

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Activities	Targets/Indicators					Sch	edule	2					Responsible persons	Inputs	Remarks
		199	В	1999		20	ΧХ		2001		2002		in the project		
		1 11	III IV	1 11 1	II IV	1 11	III I	V I	11 111	IV I	11 111	IV			
Verify practical technologies by on-farm experiments															n T
1.2.1 Farmers selection	10 10 10 10														
1.2.1.1 Collection of physical and weather condition data.	stratification of area/map											1	Kyalo, Muok, Hayashi	Vehicle, fuel, tools	
1 2.1.2 Selection of representative farmers 1.2.1.3 Technology workshop for selected	No. of selected farmers No. of workshops												Kyalo, Muok, Hayashi Kyalo, Muok, Hayashi	Vehicle, fuel, tools, stationary Vehicle, fuel, tools, stationary	
farmers	The of manuscript		•		**									, , , , , , , , , , , , , , , , , , , ,	
1.2.2 Verification of the technologies developed in the pilot forest															
1 2.2.1 Water harvesting (Micro-catchment) 1.2.2.2 Site preparation	Appropriate structure/type of structure Appropriare method/no. of method												Kyalo, Muok, Hayashi Kyalo, Muok, Hayashi	labour, consumable, fuel, tools, vehicle, seedlings labour, consumable, fuel, tools, vehicle, seedlings	
1 2.2.3 Hole size	Optimum size/no.of hole sizes												Kyalo, Muok, Hayashi	labour, consumable, fuel, tools, vehicle, seedlings	
1.2.2.4 Weeding (complete, slashing, spot) 1.2.2.5 Prunning	Weeding method/growth and survival Optimum prunning height/diferrent prunn	 ing leve										rboood	Kyalo, Muok, Hayashi Kyalo, Muok, Hayashi	labour, consumable, fuel, tools, vehicle, seedlings labour, consumable, fuel, tools, vehicle, seedlings	change of schedule
1.2.3 Introduction of new technology	Same farmers in 1.2.1														
1.2.3.1 Fruit trees	Adaptability/ farmer acceptance												Kyalo, Muok, Hayashi	labour, consumable, fuel ,tools, vehicle, seedlings	
1.2.3.2 Fodder	Adaptability/ management												Kyalo, Muok, Hayshi	labour, consumable, fuel ,tools, vehicle, seedlings	change of schedule
1.2.4 Weather Monitoring and soil sampling	1 rain gauge per selected farmer												Kyalo, <u>Omanbia,</u> Muok, Hayashi	monitoring tools , labour ,fuel,	addition of officer
	sample soil on each selected farm													soil collection tools, soil analysis equipment	
3 Prepare technical manuals															
1.3.1 Data collection and management	Collect, summarize and file data from												Muok, <u>kigwa</u> , Kyalo	transportation, stationery, labour	
	all exp. plots and some farm forest												Auka, Mishima, Hayashi, Noda	Computer	
1 3.2 Data analysis	All collected data											1 1	Muok, <u>Kigwa</u> , Kyalo, Auka, Mishima, Hayashi,Noda	stationery	100
1.3.3 Preparation of manuals	Draft and prepare manual for publication/											1 1	Muok, Kigwa, Kyalo,	stationary	
	3 manuals.												Auka, Mishima, Hayashi, Noda	= = =	

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Activities	T		Schedule			D		Remarks
Activities	Targets/Indicators	1998 1999	2000	2001	2002	Responsible persons in the project	Inputs	Remarks
		1 11 111 11 1 11 111			IV I II III I			
Design, establish, monitor and evaluate farm forest								
2.1 Establish farm forests in SFTP (II) target area								7
2.1.1 Select target farmers	Number of selected target farmers					Ali, Emily,DFEO,Yamauchi	transport, stationery, allowance,	
2.1.2 Conduct profile survey on selected targets	Number of target farm profiles					Ali, Emily, DFEO, Hiro	transport, stationery, allowance,	
2.1.3 Design target farm forests	Number of designed farm forests					Muok,Kyalo,DFEO, Hayashi, Hiro,Yamauchi	transport, stationery, allowance,	
2.1.4 Establish farm forests	Number of established farm forests					Ali, Emily, Kyalo, DFEO, Hiro, Hayashi	transport, stationery, allowance, labour, seedling.	
2.1.5 Monitor the establishment of farm forests	Number of times monitored / reports					200	transport, stationery, allowance, labour	addition of officer & change of respnsbl p
2.1.6 Record keeping	Number of records					DFEO, Ali, Emily, Muok, Kyalo Hiro, Hayashi	Stationery.	
2.2 Collect and analyze information concerning establishme of farm forest	nt							
2.2.1 Review of SFTP (II) extension approaches	Crucial points for tree planting by farmers report					Emily, Ali, Rateng, Yamauchi	Stationery	1.7
2.2.2 Conduct general conditions survey in target areas	Socio/economic and natural conditions report of the target areas					DFEO, Muck, Ali Yamauchi, Hayashi	transport, stationery, consultancy	change of resposbl p & schedule
2.2.3 Conduct forest resource survey	Forest resource inventory report					Muok,Mishima, Hayashi,	Survey instrument, transport,Short te	change of schedule
2.2.4 Conduct survey for general condition of individual farmers in target areas	Criteria for selecting target farmers					Muok, Kamene,DFEO Hiro	transport consultancy	
2.2.5 Study of forestry extension status	Reports					Kamene.DFEQ Hiro	transport, stationery allowance	change of resposbl p
2.2.6 Literature review of establishment of farm forest	Reports					Kamene DFEO Yamauchi	transport, stationery allowance	change of respnsbl p
2.3 Formulate plan of farm forest establishment	11 =					Muok.Osore,Ali.Emily,Kyalo,Dame		addition of officers
2.3.1 Set up farm forest establishment strategy	Document strategies for farm forest establishment					DFEQ Hiro, Yamauchi, Hayashi	Stationery	change of schedule responsible person
2.3.2 Set up criteria for target farmer selection	List of criteria					inc. iniaucii. Iia jasii	Stationery	responsible person
2.3.3 Design farm forest types	Number of farm forest types						Stationery	
2.3.4 Select target areas	Number of target areas						Stationery	

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^{2.} First name in the row is the Activity Leader.

				Schedule								
Activities	Targets/Indicators	1998	1999	2000	7	2001		200		Responsible persons	Inputs	Remarks
		1 11 111 1V		1 11 111 1		2001 11 111	IV I	200		in the project		
2.4 Establish farm forests				1 11 111		11 111	1 1	1"	114			
										=		
2.4.1 Train extension agents												
2.4.1.1 Implement training courses	Number of TAs trained					-1				Kamene.Rateng.DFEO.Muok.Kyalo.	training expenses	change of schedule
				m						Osore, Hiro, Yamauchi, Hayashi		addition of officers
	Number of TAs trained									DFEO.Ali.Emily.Muok.Kyalo.Osore	bicycles, motorbike	addition of officer
farm forests										Hiro, Hayashi		
2.4.2 Select target farmers	Number of selected target farmers									Ali.Emily,DFEO.Muok.Kyalo.Osore	transport, stationery	addition of officer
							1 -		-	Hiro,Hayashi,		change of respnsbl
2.4.3 Train target farmers	Number of target farmers trained									Kamene Rateng DFEO Muok Kyalo.	training expenses	addition of officers
3116										Osore, Hiro, Yamauchi, Hayashi		
2.4.4 Conduct profile survey on selected targets	Number of target farm profiles									Ali,Emily,Damaris,DFEO,Osore Hiro, Hayashi	transport, stationery	addition of oficers
2.4.5 Establish farm forests and monitor										rino, riayasiii		
2.4.5.1 Design target farm forests	Number of designed farm forests									Ali.Emily.DFEO.Muok.Kyalo.Osore	transport, stationery, allowance	addition of officer
A 100										Hiro, Hayashi, Yamauchi		change of respnsbl
2.4.5.2 Establish farm forests	Number of established farm forests							П		DFEO.Ali,Emily,Osore,Damaris	transport, seedlings, labour,	addition of officers
2.4.5.3 Monitor the establishment of farm forests	Number of times monitored / reports									Hiro,Hayashi DFEQ.Ali, Emily,Muok,Kyalo,Osors	transport allowance	addition of officers
	The state of the s				*****		****		******	Hiro,Hayashi		
2.4.5.4 Record keeping	Number of records									DFEO, Ali, Emily,Muok,Kyalo,	stationery	
			isoloolooloo	as belock	eli garis	855 700	690			Hiro,Hayashi,		
2.4.6 Improve Demonstration plots in Tiva	Number of items demonstrated						4.50			Osore, Muok, Damaris, Hiro	Labour, seeds & Seedlings, tools	new activity
5 Feedback of technical knowledge of planting and tending	Report including identified gaps									Muok, Kyalo, Osore, Hayashi	stationery	change of officers
into the technology development											11 E 11	=
2.6 Intermediate evaluation	Intermediate evaluation report		HHH		- 1 1					Muok,DFEO,Kamene,Kyalo,Osore	transport, stationery, allowance	addition of officer
	- Indiana Spania									Hiro, Yamauchi, Hayashi	,,	change of respnsbl
2.7 Review of plan of farm forest establishment	Reviced plan									Muok.Kameng.DFEO.Ali.Emily.Osc	stationery	addition of officer
										Kyalo,Rateng,Hiro,Yamauchi,Hayas	hi I	
2.8 Establish farm forests by extension agents												- 1
2.8.1 Select target farmers	Number of selected farmers									DFEO	transport, stationery	
	Number of target farm profiles									DFEO	transport, stationery	
2.8.3 Design target farm forests	Number of design of farm forests									DFEO	transport, stationery, allowance	
2.8.4 Establish farm forests	Number of established farm forests				#					DFEO	transport, seedlings	
2.8.5 Monitor the establishment of farm forests	Number of times monitored / reports							₩		DEEO	transport, stationery	
2.8.6 Record keeping	Number of records									DFEO	stationery	
	Number of times monitored / reports									Emily,Ali,DFEO,Hiro	transport, stationery	
3.9 Final analysis and complete the fit of the	C . A control to the design of the control to the c						335					1100 000
2.9 Final evaluation and compilation of the result of the activities	Final evaluation report				1 1	1 1	- BSS	*****	1	Muok.Kamene.DFEO.Ali.Emily.Osc	transport, stationery	addition of officer a

Note: 1. 1st quarter is January to March, 2nd quarter April to June, 3rd quarter July to September and 4th quarter October to December, The project commenced on 26th November 1997. 2. First name in the row is the Activity Leader

Activities	Targets/Indicators	Schedule	N L	Responsible persons in the project	Inputs	Remarks
		1998 1999 2000 2001 I II III IV I III III IV I II III IV I II I	2002			
Collect, synthesize and disseminate information on social forestry extension						=
3.1 Make preparations for information activities						l in
3.1.1 Clarify information flow on social forestry extension	Report on information flow		1	dgige, Barasa, Yamauchi	Stationery	change of respnsbl prs & schedule
3.1.2 Prepare guideline for information activities	Information management guideline			Owour, Ngige, Mishima	Stationery	change of resposbl prs & schedule
3.2 Hold regular meetings	Number of meetings held		4	Dyour, Ngige, Yamauchi	Transport, allowance	change of resposbl prs
3.3 Collect and analyze information from outside sources						
3.3.1 Collect and analyze publications	Number of publications collected Number of abstructs from publications			Barasa, Kamene, Yamauchi	computers, transport, room/cabinets	change of indicators & respnsbl prsn
3.3.2 Exchange information with concerned institutions	Report of information exchanged			Rateng, Yamauchi	computer, transportation, stationery, E-mail/internet	
3.3.3 Collect and analyze successful cases of established farm forests	Number of case studies			Ngige, Owour, Yamauchi	transport, stationary	change of resposbl pr
3.4 Collect information accumulated through project activities						=
3.4.1 Keep record of project activities	annual report			Kamene, DFO, DFEO, Mishima	Stationery	change of indicator & respnsbl prsn
3.4.2 Collect information from farmers or extension agents.	Number of information sheets collected			Kamene, DFEO, Yamauchi	Stationery	change of indicator
3.5 Develop extension materials on establishment of farm forest for extension agents	Number of extension materials developed		~	Owuor, Ngige, Rateng, Barasa, Mishima	computer, stationery, software	
3.6 Disseminate information through publications or events	ger				r	
3.6.1 Publish project newsletter	Number of newsletters issued			Barasa, Ownor, Ngige, Yamauchi	Computer, stationery	change of resposbl po
3.6.2 Disseminate information through other media	Number of radio programme			Ngige, Barasa, Mishima	Stationery, Mailing cost	change of indicator &
3.6.3 Hold seminar on social forestry	Number of article published Number of seminars held			Owour, Ngige, Rateng, Yamauchi	Seminar expenses	change of schedule & respnsbl prsn
3.6.4 Implement mobile show	Number of papers presented Number of shows Number of attendance			Rateng, Kamene, DFFO, Yamauchi	AV equipment, Vehicle, travel cost Stationary	char.ge of resposbl pr

Note: 1st quarter is January to March, 2nd quarter is April to June, 3rd quarter is July to September and 4th quarter is October to December. The project commenced on 26th November 1997.

Activities	Targets/Indicators			S	Schedul	e			Responsible persons	Inputs	Remarks
		1998	199	9	2000	2	001	2002	in the project		
		1 11 111 1	IV I II	III IV	I II III	IV I I	ı III IV	I III III I			
Verify practical technologies by on-farm experiments											
2.1 Farmers selection											
1.2 1.1 Collection of physical and weather condition data.	stratification of area/map	ALL							Kyalo, Muok, Hayashi	Vehicle , fuel, tools	
1.2 1.2 Selection of representative farmers	No. of selected farmers	4394d			S000				Kyalo, Muok, Hayashi	Vehicle, fuel, tools, stationary	
1.2 1.3 Technology workshop for selected farmers	No. of workshops								Kyalo, Muok, Hayashi	Vehicle, fuel, tools, stationary	
1.2.2 Verification of the technologies developed in the pilot forest									4-1		
1.2.2.1 Water harvesting (Micro-catchment)	Appropriate structure/type of structure		ALL AND UNK	GW 534 T			15.15	111	Kyalo, Muok, Hayashi	labour, consumable, fuel, tools, vehicle, seedlings	
1.2.2.2 Site preparation	Appropriate method/no. of method		4112		4-4-4			111	Kyalo, Muok, Hayashi	labour, consumable, fuel, tools, vehicle, seedlings	1 8
1.2.2.3 Hole size	Optimum size/no.of hole sizes				111			-	Kyalo, Muok, Hayashi	labour, consumable, fuel, tools, vehicle, seedlings	
1.2.2.4 Weeding (complete, slashing, spot)	Weeding method/growth and survival								Kyalo, Muok, Hayashi	labour, consumable, fuel, tools, vehicle, seedlings	
1.2 2.5 Prunning	Optimum prunning height/diferrent prunni	ng level							Kyalo, Muok, Hayashi	labour, consumable, fuel, tools, vehicle, seedlings	
1.2.3 Introduction of new technology	Same farmers in 1.2.1										
1 2 3 1 Fruit trees	Adaptability/ farmer acceptance			GLES TOTAL			GAL TOP THE		Kyalo, Muok, Hayashi	labour, consumable, fuel ,tools, vehicle, seedlings	
1 2 3.2 Fodder	Adaptability/ management								Kyalo, Muok, Hayshi	labour, consumable, fuel ,tools, vehicle, seedlings	
1.2.3.3 Experiments to respond to	No of report										
the feedback of the farm forest									Kyalo, Muok, Hayshi	labour, consumable, fuel ,tools, vehicle, seedlings	New activity
1.2.4 Weather Monitoring and soil sampling	1 rain gauge per selected farmer sample soil on each selected farm								Kyalo, Omanbia, Muok, Hayashi	monitoring tools , labour .fuel, soil collection tools, soil analysis equipment	
Prepare technical manuals											
1.3.1 Data collection and management	Collect, summarize and file data from		3 30 3					450	Muok, Kigwa, Kyalo,Mihara	transportation, stationery, labour	
	all exp. plots and some farm forest								Auka, Segawa, Hayashi, Mihara	Computer	
1 3.2 Data analysis	All collected data	160						200	Muok, Kigwa, Kyalo,	stationery	
1 22 17mm minitysis		Particular Complete							Auka, Segawa, Hayashi,Mihara		
1.3.3 Preparation of manuals	Draft and prepare manual for publication/		遊園				e la la	22.536	Muok, Kigwa, Kyalo,	stationary	
reserves parasion of manuals	3 manuals	THE REAL PROPERTY.	1	The state of					Auka, Segawa, Hayashi,Mihara	*	

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² Trist name in the row is the activity learder.

Activities	Targets/Indicators			Schedul	2			Responsible persons	Inputs	Remarks
Activities	Tai gets/indicators	1998	1999	2000	7	2001	2002	in the project	Inputs	Kemarks
		I II III IV					1 11 111 11			
Design, establish, monitor and evaluate farm forest										
2.1 Establish farm forests in SFTP (II) target area	-,								=	
2.1.1 Select target farmers	Number of selected target farmers							All, Emily,DFEOs,Yamauchi	transport, stationery, allowance,	
2.1.2 Conduct profile survey on selected targets	Number of target farm profiles							Ali, Emily, DFEOs, Hiro	labour transport, stationery, allowance, labour	
2.1.3 Design target farm forests	Number of designed farm forests							Muok,Kyalo,DFEOs, Hayashi, Hiro,Yamauchi	transport, stationery, allowance,	
2.1.4 Establish farm forests	Number of established farm forests							Ali, Emily, Kyalo, DFEOs, Hiro, Hayashi	transport, stationery, allowance,	
2.1.5 Monitor the establishment of farm forests	Number of times monitored / reports							DFEOs, Ali, Emily, Muok, Kyalo, Osoo Hiro, Hayashi		
2.1.6 Record keeping	Number of records							DFEOs, Ali, Emily, Muok, Kyalo Hiro, Hayashi	Stationery.	
2.2 Collect and analyze information concerning establishment of farm forest								1110, 113, 121		
2.2.1 Review of SFTP (II) extension approaches	Crucial points for tree planting by farmers							Emily, Ali, Rateng, Yamauchi	Stationery	
2.2.2 Conduct general conditions survey in target areas	report General conditions report of the target							DFEOs, Muok, Ali Yamauchi, Hayashi	transport, stationery, consultancy	
2.2.3 Conduct forest resource survey	areas Forest resource inventory report							Muok,Segawa, Hayashi,	Survey instrument, transport, Short term	expert
2.2.4 Conduct survey for general condition of individual farmers in target areas	Criteria for selecting target farmers/ Socio-economic survey report							Muok, Kamene,DFEOs, Hiro	transport consultancy	
2.3 Formulate strategic plan for promoting farm forest establishment by local residents										
2.3.1 Set up guideline for farm forest establishment	Guideline for farm forest establishment							Nyambati, Muok, other team memb	er Stationery	
2.3.2 Identify appropriate approach for target farmer selection	SOFEM's approach for farmer selection (Village app, Group app and Individual app							Hiro Ali, Emily, DFEOs, Hiro	Stationery	
2.3.3 Select target areas	Number of target areas							All team members	Stationery	
2.3.4 Conduct and monitor seeds/seedlings information sy	Non of people shared seed/seedling information	ntion						Ali, DIEOs, Hiro	Stationery	
2.3.5 Conduct and monitor cost sharing system	Number of local residents participated							Emily, DFEOs, Hiro	Stationery	

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utput (2): Appropriate methods of establishing farm forest	s are developed															Ziiu Kevision	, 11p111 200
Activities	Targets/Indicators					S	chedi	ule							Responsible persons	Inputs	Remarks
Activities	raigessinuicators		98		99		200			2001			2002		in the project	mputs	Kemarks
		1 11	III IV	1 11	111 1	ıv i	11	III IV	1	11 1	11 17		11 1	<u> 11 17</u>			
2.4 Establish farm forests						-											
2.4.1 Train extension agents												Н					
2.4.1.1. Involvenus eminimo accomo	Number of TAs trained	11		***				1									
2.4.1.1 Implement training courses	Number of TAS trained			2888	1										Kamene, Rateng, DFEOs, Nyambati, Osore, Hiro, Yamauchi, Hayashi	training expenses	
2.4.1.2 Implement OJT through establishment of farm forests	Number of TAs trained														DFEOs,All,Emily, Nyambati,Osore Iliro, Hayashi	bicycles, motorbike	
															inni, mayasa		
2.4.2 Select target farmers	Number of selected target farmers	11			1							8	*		DFEOs,All,Emily,Nyambatl,Osore Hiro,Hayashi,	transport, stationery	
2.4.3 Train target farmers	Number of target farmers trained	- } }	1 1							3			*		Kamene,Rateng,DFEOs, Nyambati,	training expenses	•
2.4.4 Conduct profile survey on selected targets	Number of target farm profiles										*		****	**	Osore, Hiro, Yamauchi, Hayashi DFEOs,Ali,Emily,Nyambati,Osore	transport, stationery, allowance	
	ramoer or target turns promes			\$200		١		****							Nyambati, Hiro	umsjort, sammery, anovance	
2.4.5. Design target farm forests	Number of designed farm forests	11		1			1				*		×		DFEOs,Ali,Emily,Nyambati,Osore Hiro	transport, stationery, allowance	
2.4.6 Establish farm forests	Number of established farm forests								8						DFEOs,All,Emily,Nyambati,Osore	transport, seedlings, labour,	
2.4.7 Monitor the establishment of farm forests	Number of times monitored / reports					*									DFEOs,Att,Emily,Nyambatt,Osore	transport, allowance	
2.4.8 Record keeping	Number of records														Hiro DFEOs,All,Emily,Nyambati,Osore	stationery	
2.5 Establish farmer to farmer extension system												П		İ			
2.5.1 Prepare programme for farmer to farmer extension	Concept paper										-		İ		Ali, DFEOs	stationery	
	'''								П						Itim	Manorary	
2.5.2 Conduct and monitor farmer to farmer extension programme	Number of farmers trained														Ali, Emily, DFEOs, Osore Hiro	transport, stationery, allowance	
2.6 Improve demonstration plots in Tiva (DEMO II)		11					$ \cdot $								inno		
2.6.1 Develop and demonstrate practical farm forestry	Number of technologies demonstrated									******	****				Osore, Nyambail, other team memb		
related technologies	Transcr of technologies demonstrated		11			800F82		******	X400000	*****	******		****	****	Hiro	a Lander, seeds & Seedings, tools	
2.6.2 Conduct and monitor OJT programme	Number of people trained														Osore, Nyambati, other team memb	n transport, stationery, allowance	
2.7 Feedback of technical knowledge of planting and tending	Report including identified gaps														Hiro Nyambati, Ali.Emily,Osore	stationery	
into the technology development															Hiro		
2.8 Intermediate evaluation	Intermediate evaluation report											$ \ $			Muok, Nyambaii	transport, stationery, allowance	
10. Raview of also of form forest actablishm.	Davieud alen								1						Illiro, Yaniauchi, Hayashi		
2.9 Review of plan of farm forest establishment	Revised plan		11			122	******					$ \ $			Muok, Nyambati Hiro,Yamauchi,Hayashi	stationery	
2001												3330	****		Hitro		
2 10 Final evaluation and compilation of the result of the activities	Final evaluation report											***	***		Muok, Nyambati Hiro, Yamauchi, Hayashi	transport, stationery	•

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Output (3): Information on social forestry extension is shared by the people and other related organizations

Activities	Targets/Indicators						S	ched	lule									Responsible persons in the project	Inputs	Remarks
		199	8		199	9	T	20	00	T	2	2001	-	T	200)2	\dashv	in the project		
		I II		-		111 1	VI	11	-	I۷			II	1	_	ш	V			
Collect, synthesize and disseminate information on social forestry extension																				
3.1 Make preparations for information activities	*									1										
3 1.1 Clarify information flow on social forestry extension	Report on information flow	W ISI	AN RI	i diti	TAN)							Ì					Z	Igigo, Barasa, Akabane	Stationery	change of resposbl prsn
3.1.2 Prepare guideline for information activities	Information management guideline		OLEN TO		0000 0000												c	owour, Ngige. Segawa	Stationery	change of respusbl pren
3.2 Hold regular meetings	Number of meetings held			3 333	M			1	AG2					1	188	26	溢 c	Owour, Ngige, Akabane	Transport, allowance	change of resposbl prso
3 + Collect and analyze information from outside sources	-																			
3.3.1 Collect and analyze publications	Number of publications collected				260										1000		题,	'yambati, Kamene, Akabane	computers, transport, room/cabinets	change of resposbl prsn
, make a contrologue	Number of abstructs from publications	no.																Lopping		
3.3.2 Exchange information with concerned institutions	Report of information exchanged			2 252								14.7	His	i in			R	Rateng, Akabane	computer, transportation, stationery.	change of respusbl prs
3.3.3 Collect and analyze successful cases of established farm forests	Number of case studies		200						X	ALC:							N	lyambati,Ngige, Owour, Akabane	E-mail/internet transport, stationary	change of respusbl prs
3.4 Collect information accumulated through project activities																				
3.41 Keep record of project activities	Annual report					200	# S		1000				I W	100	200		幽	Kamene, DFO, DFEO, Segawa	Stationery	change of respusbl prai
3 4.2 Collect information from farmers or extension agents	Number of information sheets collected	1850	uspire.	N STEE				160	1201	aw.				15/6			₩ ĸ	Kamene, DFEO, Akabane	Stationery	change of resposbl prsi
3.5 Develop extension materials for extention agents	Number of extension materials developed	П					e de la constante de la consta			<u> </u>			133	ŧ				dgige, Rateng, Kamene,Mbiru Akabane	computer, stationery, software	
3.6 Disseminate information through publications or events	_																			
3.6.1 Publish project newsletter	Number of newsletters issued	100								35.						100		Mbitu,Barasa, Akabane	Computer, stationery	change of respusbl prai
3.6.2 Disseminate information through other media	Number of times media used				100					All I					1		3	Mbiru,Ngige, Barasa,Akabane	Stationery, Mailing cost	change of indicator &
3 6.3 Hold seminar on social forestry	Number of seminars held			300 100 A	iria izaa	udi a	Ú						1	4	W.	1301 S		Owour, Ngige, Rateng, Akabene	Seminar expenses	respusbl pran change of respusbl per
3.6.4 Implement mobile show	Number of papers presented Number of shows Number of attendance														2003		E F	Rateng, Kamene, DFEO, Akabane	AV equipment, Vehicle, travel cost Stationary	change of respusbl prss

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List of P/O items changed

(from 1st revision, May 1999 to 2nd revision, April 2000)

Farm Forest Establishment (Extension section)

r	ło	P/O	Old (1st revision)	P/O	New (2nd revision)	Reasons of change
	1	2.2.5	Study of forestry extension status		deleted	Low priority
	2	2.2.6	Literature review of establishment of farm forest		deleted and combined with 3.3.1	Duplicated activity
	3	2.3	Formulate plan of farm forest establishment	2.3	Formulate strategic plan for promotin farm forest establishment by local residents	Re-formulation of strategies and activities to encourage active participation of the local residents in the project.
	4			2.5	system	New activities undertaken to complete the project purpose, which is to develop social forestry extension model.
	5			2.6.2		New activities undertaken to meet the wider demands of the local residents for learning various farm forestry related technologies.
	6	2.8	Establish farm forests by extension agen	its		Re-formulation of strategies taking FD's position and the sustainability of the project activities into account

Activities	Turgets/Indicators			Schedule			Responsible persons in the project	Progress (%)	Distinguished Achievement	Problems and Countermeasures
= -		1998	1999	2000	2001	2002	in the project	(20)	Acinetement	Counter measures
		1 11 111 17	1 11 111 11	1 11 111 1V	1 11 111 11	1 11 111 11				
Develop practical technique for establishment of farm for	est in semi-arid areas									
1 Develop technology in the Pilot Forest										
1.1 1 Development of basic tree planting technologies										
1 1.1.1 Seeds germination	Melia volkensii, Terminalia brownii		100 HU MILES				Muok,Kyalo,Hayashi	60	data collection on going	
1 1.1.2 Root system	root pattern and drought tolerant	100 A VOLUM					Kyalo, Muok, Hayashi	90	preparing report	
1.1.1.3 Insect/disease control	Degree of damage comparison	Service Consum					Kyalo, Muok, Kigwa, Hayashi,	50	data collection on going	Some trees were harvested by unknown
1,1.1.4	1 A8 98000 CO						Mihara			people.
1.1.2 Verification of intensive-planting management										•
1.1.2.1 Water catchment	optimum type, size/growth, erosion						Kigwa,Muok,Mihara	70		
1.1.2.2 Mulching	necessity of mulching/ growth	200 VALUE		1 1 1 1 1 1			Kigwa,Muok,Mihara	70	1	
1 1 2 3 Weeding	optimum frequency/growth, survival	200				20 Sept 20	Kigwa,Muok,Mihara	50	tstablished	
	clear weeding, slash/growth, survival						Kigwa,Muok,Mihara	35	new plot-demarcation(0.58ha)	
			1							
1.1.2.4 Water regime		The state of	ara a sa	A STATE OF THE REAL PROPERTY.	A THIS HOTELES AND	AND TO A			1.0.1	1 10
1.1.2.4.1 Soil moisture	1ha/treatment-soil moisture relations/grow	h l				非控制	Kigwa,Muok,Mihara	25	away some app	erahis enew Sun heat Shiè
1.1.2 4.2 Sun heat shield effect and mulching	0.3ha/effect of mulching/growth		THE RESERVE		CANDERSON STATES	\	Kigwa, Muok, Mihara	2000	new plot established(0 26ha)	enery Com heat Shil
1.1.2.4.3 Water stress	pruning-water stress relations/correlation					CHOPPEN CALLED	Kigwa, Muok, Mihara	40	("	Free Som room S
1.1.2.4.4 Evapo-transpiration	water consumption/sap flow						Kigwa, Muok, Mihara	40	The machines have been installed by sho	n I
									term expert. Monitaring on-going.	
1.1.3 Verification of planting technology		F000 1800 500	ACCESSOR SPECIAL PROPERTY OF THE PARTY OF TH	SECONOMINA PROPERTY.	AND OTTO STATE SAME	WASHINGTON OF THE PARTY OF THE			3	
1 1.3.1 Monitoring of existing spacing plot	optimum spacing/growth, survival	A GIN			200	1000	Kigwa, Muok, Mihara	40 .		
1.1.3.2 Study pruning of existing plot	effect of pruning/growth, survival		0.00		Helsi t		Kigwa,Muok,Mihara	40	1 100 1-001	
1.1.3.3 Study thinning of existing plot	effect of thinning/growth, die-back	An area are				4500	Kigwa, Muok, Mihara	40 -	-take baced	Trees were too young to be thinned
		muca muesto	834200 FEVER	A CHICAGO AND AND AND AND AND AND AND AND AND AND	A AZDERSON DESIGNAL			30	100 DO . 02.01	Thinning postponed to Dec 1999
1.1.3.4 Study coppicing of existing plot	coppicing ability /no. of coppices				1		Kigwa, Muok, Mihara 570	30	new plot designed	
								-5	Coppicing carried out.	1
		THE PERSON	AND DESIGNATION OF THE PERSON	I SANS PERIOD	STATE OF STREET	SERVICE REPO				
1.1.4 Establishment of Wildfruits demonstration	trials on 20 spp./growth, marketability	A CONTRACTOR OF THE PARTY OF	THE REAL PROPERTY.	A STATE OF THE SAME	THE RESERVE	SHANGE SEE	Kigwa,Muok,Mihara	V 40	one plot established	1
orchard	using grafting, cutting and mycorrhiza							i išk	consisting of 9spp	
1.1.5 Suporting activity of technology development		19291217A (191921-634	A STREET STREET	A STANDARD TO SEE A	AND DESCRIPTION	· · · · · · · · · · · · · · · · · · ·	Kyalo Kigwa, Auka, Muok,	50	daily weather data	1
1.1.5.1 Weather monitoring data	weather data/weather data	THE REAL PROPERTY.	September 2	PROPERTY AND PARTY.	AND STREET, ST	CHARLES CONTROL	Hayashi, Mihara	30	Control of the Contro	1
1 1.5.2 Collection of references	references/no. of references) # 10 m m m m m m m m m m m m m m m m m m	SALES TO SE	41450 VSW-74	20 30 30 00	JE 198 1781	Kigwa,Kyalo,Auka,Mihara,	40	70	1
1.5.2 Collection of references	references/no. of fererences	AND THE PARTY OF	AND THE PERSON	had a security and the second	192 Inches	CONTROL OF THE	Hayashi	40	Percentile books	
1 1 5 3 Management of experimental plot	road management, experimental plot manag	100 B (100 B)	網の開始の新陸	国被线	March 1985	型的 增加	Kigwa, Auka, Mihara	40		
and road network	road management, experimental plot manag	SAMPLE PROPERTY.	EZELEUO AL PRODUCE	the modern on	Distriction of the last	MARCH SARRY	isigwa,Auka,Wiiilaa	40		i
1.1.5.4 Seed collection, production and supply	necessary no. /no. of seedlings	CANADA GARAGO	新松林	建筑和	THE REPLECT	在基础	Kyalo,Hayashi	50	about 37,000 seedlings produced.	Salinity water during the dry season
of seedling	necessary no. /no. or seedings necessary weight/ weight of seed collected	District Assess School Service	SALVEGICENS STE	A STATE OF S	CONTRACTOR OF THE	AND DESCRIPTION OF THE PARTY OF		30	assar 5 ,000 securings produced.	damaged seedlings.
1 1.5.5 Management of Tiva arboretum	no. of spp./weight of seed supplied	DESCRIPTION.	MAN KENY	2007-00-00			Kyalo,Hayashi	50		
1 1.5.6 Protection of human and animal damage	1000 ha./ decrease of damage/			Mg .		SECTION AND IN	Kigwa,Kyalo,Mihara,Hayashi	50	3barners installed	tree poaching
1.1.3.0 Frotection of national and animal damage	number of damages	MONTH OF THE PARTY	SOLATOR WORLD	CHEST SALES	10E-0000010378545	CONTRACTOR NA				
1 1.5 7 Study on work efficiency	work efficiency table/table	100 Feb. 344	or to the same		30		Kigwa,Kyalo,Mihara,Hayashi	50	Cest andysis	1
Muly on work entering	cincincy table table	EXECUTE ON	AND DESCRIPTION OF THE PERSON	PILL BUILDING	ana a		,.,,,,,,,,,,,		US CIMILYSIS	
	Feedback received and retested			NAME OF THE OWNER OWNER O	Landyer Landson	an in toppean	Kigwa, Muok, Auka, Mihara	0	New activities	1

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Activities	Targets/Indicators	Schedule	Responsible persons	Progress	Distinguished	Problems and
		1998	In the project	(%)	Achievement	Countermeasures
2 Verify practical technologies by on-farm experiments 1.2.1 Farmers selection						
1211 Collection of physical and weather condition data 1212 Selection of representative farmers 1213 Technology workshop for selected farmers	stratification of area/map No. of selected farmers No. of workshops		Syalo,Muok,Hayashi Syalo,Muok,Hayashi Syalo,Muok,Hayashi	60 60 60 66	Selected Framers Two workshops carried out	re formers
1.2.2 Verification of the technologies developed in the pilot forest 1.2.2.1 Water harvesting (Micro-catchment) 1.2.2.2 Site preparation 1.2.2.3 Hole size 1.2.2.4 Weeding (complete, slashing, spot) 1.2.2.5 Prunning work get Charled 1.2.3 Introduction of new technology	Appropriate structure/type of structure Appropriare method/no. of method Optimum size/no.of hole sizes Weeding method/growth and survival Optimum prunning height/diferrent prunni		Syalo Muok, Hayashi Syalo Muok, Hayashi Syalo Muok, Hayashi Syalo Muok, Hayashi Syalo Muok, Hayashi Syalo Muok, Hayashi	50 50 60_50 60-33	4 plots planted monitoring 3 plots planted monitoring 3 plots planted monitoring 4 plots planted monitoring 4 plots planted monitoring 4 plots planted monitoring 4 plots planted monitoring 4 plots planted monitoring 4 plots planted monitoring 4 plots planted monitoring 4 plots planted monitoring 4 plots planted monitoring 4 plots planted monitoring 5 plots planted monitoring 6 plots planted monitoring 6 plots planted monitoring 7 plots planted monitoring 8 plots planted monitoring 9 plots planted monitoring 9 plots planted monitoring 9 plots planted monitoring 9 plots planted monitoring 9 plots planted monitoring 9 plots planted monitoring 9 plots planted monitoring 9 plots planted monitoring 1 plots p	Some trees were browsed. Some trees were browsed. Some trees were browsed.
1.2.3.1 Fruit trees 1.2.3.2 Fodder 1.2.3.3 Experiments to respond to the	Same farmers in 1.2.1 Adaptability/ farmer acceptance Adaptability/ management		Kyalo, Muok, Hayashi Kyalo, Muok, Hayashi	1 37	9 farms planted 3 farms planted - very activity	The variety of some trees cannot be identified.
feedback of the farm forest 1 2 4 Weather Monitoring and soil sampling	I rain gauge per selected farmer sample soil on each selected farm		Syalo,Muok,Omambia,Hayashi	50%	20 rain gauges installed. Soil profile survey was done in 30 farme	
3 Prepare technical manuals 1.3.1 Data collection and management	Collect, summarize and file data from all exp. plots and some farm forest	Contract of the Contract of th	Muok Kigwa Kyalo, Auka Segawa, Hayashi, Mihara	40	on station and on farm data	
1.3.2 Data analysis 1.3.3 Preparation of manuals	All collected data Draft and prepare manual for publication/		Muok,Kigwa,Kyalo,Auka, Segawa,Hayashi,Miharu Muok,Kigwa,Kyalo,Auka Segawa,Hayashi,Mihara	33	One manual issued NEW+z~gl+ 13 W	ame ls

Note 1st quarter is January to March, 2nd quarter is April to June, 3rd quarter is July to September and 4th quarter is October to December.

The project commenced on 26th November 1997.

Nyambati, Muok, other team membe

Ali, Emily, DFEOs, Hiro

All team members

Ali, DFEOs, Hiro

Emily, DFEOs, Hiro

Report (1st edition)

Identified 3 approaches

Selected 3 divisions (Central, Kabati, Chuluni)

First issue of seedling information

Groups, individuals and institutions participated in cost sharing

Schedule Activities Targets/Indicators Responsible persons Distinguished Problems and Progress 1999 2000 2002 in the project (%) achievements countermeasures 1111111111 i luludiv 2 Design, establish, monitor and evaluate farm forest 2.1 Establish farm forests in SFTP (II) target area 2.1.1 Select target farmers Number of selected target farmers Ali, Emily, DFEOs, Yamauchi 6 selected target farmers from 3 divisions 2.1.2 Conduct profile survey on selected targets Number of target farm profiles Ali, Emily, DFEOs, Hiro Compiled 6 farmers' profiles 2.1.3 Design target farm forests Number of designed farm forests Muok, Kyalo, DFEOs, Designed 6 farm forests 100 Hayashi, Hiro, Yamauchi 2.1.4 Establish farm forests Number of established farm forests Ali, Emily, Kyalo, DFEOs, Established 6 farm forests Hiro,Hayashi 2.1.5 Monitor the establishment of farm forests Number of times monitored / reports DFEOs, Ali, Emily, Muok, Kyalo, Oso 50 Developed monitoring sheet Hiro, Hayashi and compiled data 2.1.6 Record keeping Number of records DFEOs, Ali, Emily, Muok, Kyalo Accumulated record through Hiro, Hayashi monitoring sheet and field note 2.2 Collect and analyze information concerning establishment of farm forest 2.2.1 Review of SFTP (II) extension approaches Crucial points for tree planting by farmers Emily, Ali, Rateng, Yamauchi Report 2.2.2 Conduct general conditions survey in target areas General conditions report of the target DFEOs, Muok, Ali 80 Draft report Yamauchi, Hayashi 2.2.3 Conduct forest resource survey Forest resource inventory report Muok, Mishima, Hayashi, Report (Japanese) 50 2.2.4 Conduct survey for general condition of individual Criteria for selecting target farmers/ Muok, Kamene, DFEOs. Report Socio-economic report farmers in target areas Hiro 2.3 Formulate strategic plan for promoting farm forest

Guideline for farm forest establishment

SOFEM's approach for farmer selection

Number of local residents participated

Number of target areas

2.3.4 Conduct and monitor seeds/seedlings information system of people shared seed/seedling information

(Village app, Group app and Individual app)

2.3.5 Conduct and monitor cost sharing system

2.3.1 Set up guideline for farm forest establishment

2.3.2 Identify appropriate approach for target farmer

establishment by local residents

selection
2.3.3 Select target areas

Note: 1. 1st quarter is January to March, 2nd quarter is April to June, 3rd quarter is July to September and 4th quarter is October to December. The project commenced on 26th November 1997.

^{. 2.} First name in the row is the Activity Leader

Author (2): Appropriate methods of establishing farm forests																		iviointoi ing,	
A saturate		Schedule															l <u></u>		
Activities	Targets/Indicators	1998 1999 2000 2001 2002								νı	т	20	202	\dashv	Responsible persons in the project	Progress (%)	Distinguished achievements	Problems and countermeasure	
		1111		IV I			v i	11 11				ıv			īv	in the project	(70)	acmevements	countermeasure
2.4 Establish farm forests											1						i		
			'														1		
2.4.1 Train extension agents			1		1	l I					1						,		
2.4.1.1 Implement training courses	Number of TAs trained				***			***			1					Kamene,Rateng,DFEOs, Nyambati,	50	Trained TAs through training	
, ,			L													Osore, Hiro, Yamauchi, Hayashi		course (98 & 99) and study to	
2.4.1.2 Implement OJT through establishment of	Number of TAs trained	- 1 1														DFEOs,Atl,Emily, Nyambati,Osore	30	Trained TAs	
farm forests		- []			İ											Hiro, Hayashi			
2.4.2 Select target farmers	Number of selected target farmers		1	Н			1									DFEOs,Ali,Emily,Nyambati,Osore	30	31 newly selected target farm	i ers
-				П				\square			٦		Γ			Hiro,Hayashi,	ŀ	in 99	
2.4.3 Train target farmers	Number of target farmers trained			1				🎇	₩				İ			Kamene,Rateng,DFEOs, Nyambati,	30	Trained farmerss through tra	-
2.4.4 Conduct profile survey on selected targets	Number of toront form profiles				2200	****			a	SSS	*****		***	*****	- 1	Osore, Hiro, Yamauchi, Hayashi	,,,	course (98 & 99) and study t	
2.4.4 Conduct prome survey on selected targets	Number of target farm profiles				3888	*****		*******	*	 	****		1888	******		DFEOs,All,Emily,Nyambatl,Osore Nyambatl, Hiro	30	Compiled 37 farmers' profile	
2.4.5. Design target farm forests	Number of designed farm forests							‱		-				***		DFEOs, Ali, Emily, Nyambati, Osore	30	Designed 37 farm forests	
					ļ	[]		"								Him	ŀ		
2.4.6 Establish farm forests	Number of established farm forests													}		DFEOs,Ali.limity,Nyambatl,Osore	30)	Established 37 farm forests	
2.4.7 Monitor the establishment of farm forests	Number of times monitored / reports			Н			***			***		***	***		xxxxd	Hiro DFEOs,Att,Emity,Nyambatt,Osore	30	Revised monitoring sheet	
2.7.7 Fromot the establishment of farm forests	Transcr of times monitored / reports			H			3888	***********	S S S	8000000	505555	****	200	7	••••	Hiro	. ~	and compiled data	
2.4.8 Record keeping	Number of records															DFEOs,Att,Emily,Nyambatt,Osore	30	Accumulated record through	
					ŀ			1	+						-]	monitoring sheet and field or	te I
2.5 Establish farmer to farmer extension system				Н	1	П									1				
2.5.1 Prepare programme for farmer to farmer extension	Concept paper			П		H	***				П					Ali, DFEOs	100	Produced concept paper	
				Н	1			1			П			1	- 1	Hiro	""		
2.5.2 Conduct and monitor farmer to farmer extension	Number of farmers trained											-	*	***	-	All, Emily, DFEOs, Osore	0		
programme		11			1						П					Hiro			
2.6 Improve demonstration plots in Tiva (DEMO II)			ı									1		П					
2.6.1 Develop and demonstrate practical farm forestry	Number of technologies demonstrated						****								₩	Osore, Nyambati, other team member	50	Improved DEMO II	
related technologies	_			[\prod		<u> </u>					liiro	ł		
2.6.2 Conduct and monitor OJT programme	Number of people trained			H							***					Osore, Nyambati, other team member	20	Trained farmers and student	
2.7 Feedback of technical knowledge of planting and tending	Panort including identified care		-							*****			***	23333	***	Hitro Nyambati, Ali,Emily,Osore	20	Technical information provi	
into the technology development	Report including identified gaps	- i	1	│	*****	********	***		*****	******	******		****	*****	****	Hiro	2"	to tee, dev. section	
				1	Ì														
2.8 Intermediate evaluation	Intermediate evaluation report															Muok, Nyambati	80	Preparatoru work done for	
10 Davis and Calculation of Committee of the Calculation of Calcul	Device Labor															Hiro, Yamauchi, Hayashi		the mission	
2.9 Review of plan of farm forest establishment	Revised plan					$ \ $	1888	******								Muok, Nyambati Ifiro,Yamauchi,Hayashi	100	Revised P/O	
																Hiro, i amaucio,riayasin Hiro	1		
2.10 Final evaluation and compilation of the result of the	Final evaluation report						1									Muok, Nyambati	0		
activities					\perp	Ш	_1_	$\perp \perp$					\perp			Hiro, Yamanchi, Hayashi	<u></u>	<u> </u>	

Note: 1 1st quarter is January to March, 2nd quarter April to June, 3rd quarter July to September and 4th quarter October to December. The project commenced on 26th November 1997.

^{2.} First name in the row is the Activity Leader

Output (3): Infromation on social forestry extension is shared by the people and other related organizations

Activities	Targets/Indicators	Schedule														P	rogress (%)	Distinguished Achlevement	Problems and Countermeasures		
	1		98	T		999	\Box		2000		T	200		I		002			,		
		I II	III	IV I	III	III	I۷	I	II I	II II	1	11	ш	V I	II	III	IV				
Collect, synthesize and disseminate information on social forestry extension																					
3.1 Make preparations for information activities				1							1									-	
3.1.1 Clarify information flow on social forestry extension	Report on information flow	\vdash	+		İ														100		lack of communication equipment
3.1 2 Preparation of guideline for information activities.	Information management guideline	1																	70		
3.2 Hold regular meetings	Number of meetings held	\vdash	+		+	+	H	H	1	+	+		+	+	+	t	\vdash		35	Meeting held monthly	
3.3 Collect and analyze information from outside sources and make at 108ml																					
3.3.1 Collect and analyzing publications	Number of abstracts from publications	H	+	H	+	+	+	H	+	+	\dagger	-	+			+	\dagger		20		lack of equipment (computer)
3.3.2 Exchange information with concerned institutions	Report of information exchanged	H	+	H	+	+	+	H	+	+	+	-	+	+	+	+	+		25	visit to two institutions in Kenya and Kilimanjero Village Forestry Projec	1
3.3.3 Collect and analyze successful cases of established farm forests	Number of case studies		H	H	1		+			1	-								15	1000000000 00 9400 BAR 506	
3.4 Collect of information accumulated through project activities																		7			
3.4.1 Keep record of project activities	Number of reports on project activities	\vdash	+		+	+	+		-	+	+	-	H	t	+	+	+		35		
3.4.2 Collect information from farmers or extension agents.	Number of farmer/extension agnets contacted	1	-		+	+	+			+	t				-		+		20		
3.5 Develop extension materials on establishment of farm forest for extension agents.	Number of extension materials developed									1	-								35	Some materials have already developrior to the schedule in P.O.	pped
3.6 Disseminate information through publications or events	10.0																		35		
3 6.1 Publish project newsletter	Number of newsletters LINE	1 +			+	+	+	\vdash		+	\dagger			\dagger	+	\dagger	\dagger		12 \$ 70	2000 copies of the 1st issue was distributed.	1 por tent
3.6.2 Disseminate information through other media	Number of articles published/			1	+	+	+	\vdash		+	+			1		+	+		10		
3.6.3 Hold seminar on social forestry	Number of seminars held Number of papers presented					F	1								-				45	The first seminar was held with about 110 participants.	out
3.6.4 Implement mobile show	Number of shows Number of attendance			ŀ	1	1	+			1	1			1		1	1		20	Nine shows were held with about 1200 participants.	

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Record of the 2nd monitoring; Description of each item of the P.O.

1.Develop practical technique for establishment of farm forest in semi-arid area

1.1. Develop technology in the Pilot Forest

1.1.1.Development of basic tree planting technologies

1.1.1.1.Seeds germination

ITEM	
	Plan
OUTPUT	1. test germination of <i>Melia volkensii</i>
(farm forest establishment	2. test germination of <i>Terminalia brownii</i>
(technology))	
Seed germination	Achievement
(P.O. 1.1.1.1.)	1. Germination trail of seeds and root propagation of Melia volkensii
	has been tested. <u>Achievement:60%</u>
	2. Germination trial of seeds of Terminalia brownii has been tested.
	Achievement: 50%
1	
	1-1. Seeds of M.volkensii collected from goat boma showed good
	germination performance.
	1-2. An experiment has been carried out to determine the effect of age
ACTIVITIES	of pricking out on the early survival of seedlings in the nursery.
(Progress)	The other experiment is vegetative propagation trial using root
	cuttings with different concentration of IBA
1	
	2-1. Seeds collected from Homabay has been tested for germination
	with different pre-germination treatments.
	No constraint
CONSTRAINTS	
(Countermeasures)	

Record of the 2nd monitoring; Description of each item of the P.O.

1. Develop practical technique for establishment of farm forest in semi-arid area

1.1.Develop technology in the Pilot Forest

1.1.1.Development of basic tree planting technologies

1.1.1.2.Root system

ITEM	
OUTPUT (farm forest establishment (technology))	Plan 1. Depth and width of root system and Tree/Root weight ratio shall be measured and root system shall be drawn.
Root system (P.O. 1.1.1.2.)	Achievement 1. Field survey was completed in November 1997 plot. Achievement: 90%
ACTIVITIES (Progress)	1. Eight species(Grewia aricantha, Acacia sieberiana, Psidium guajava, A. auriculiformis, Zyziphus mauritiana, Carica papaya, Perusea americana, Vitex doniana) were surveyed in 1998 and 1999.
CONSTRAINTS (Countermeasures)	1. Field survey was finished and preparing report is remaining.

Record of the 2^{nd} monitoring; Description of each item of the P.O.

1. Develop practical technique for establishment of farm forest in semi-arid area

1.1.Develop technology in the Pilot Forest

1.1.1.Development of basic tree planting technologies

1.1.1.3.Insect/disease control

ITEM	
	Plan
OUTPUT	1. Test to determine the effectiveness of cheaper local materials in
(farm forest establishment	controlling termite damage.
(technology))	
Insect/disease control	Achievement
(P.O. 1.1.1.3.)	1. A new experiment was started in November 1999.
	Achievement: 50%
	,
	1. The target species are Eucalyptus camaldulensis, Casualina
	equisetifolia and Grevillea robusta.
	The treatments were charcoal, tobaco, 'wood vinegar, Albizia
ACTIVITIES	anthelmintica solution, Azadirachta indica solution, etc. Chemicals
(Progress)	such as Confidor and Suscon were also included as treatments for
	comparison with the local materials.
	2. In the new experiment, treatments are;
	- tobacco powder
	- tobacco+chili+Omo
	- Neem cake
	- -
	•
	1. Livestock(cows and goats) browse trees in the experiment sites
	during the night and makes it difficult to collect adequate data.
CONSTRAINTS	
(Countermeasures)	

Description of each item of the P.O.

- 1. Develop practical techniques for establishment of farm forest in Semi-Arid- Areas .
- 1.1 Develop technology in the pilot forest
 - 1.1.2 Verification of intensive planting management

1.1.2.1 Water catchment

ITEM	
OUTPUT	Plan 1. Collection of data the determined optimum type of water catchment structure in relation to growth
technology Development	Collection of data to determine optimum size of water catchment structure in relation to growth
Water catchment (P.O 1.1.2.1)	Achievement 1. Data collected as scheduled - 70% achieved 2. Data collected as scheduled - 70 % achieved
ACTIVITIES (PROGRESS)	Data collection continues Data collection continues
CONSTRAINTS (COUNTERMEASURE)	No. constraints No. constraints

- 1. Develop practical techniques for establishment of farm forest in Semi-Arid- Areas .
- 1.1 Develop technology in the Pilot Forest
 - 1.1.2 Verification of intensive planting management
 - 1.1.2.2 Mulching

ITEM	
OUTPUT	Plan 1. Effect of mulching on growth of Senna siamea This is not be verified once per year
technology Development	
Mulching (P.O 1.1.2.2)	Achievement Data collected as scheduled - 50 % achieved
	Data collection continues
ACTIVITIES (PROGRESS)	
CONSTRAINTS (COUNTERMEASURE)	1. No. constraints

- 1. Develop practical techniques for establishment of farm forest in Semi-Arid- Areas .
- 1.1 Develop technology in the pilot forest
 - 1.1.2 Verification of intensive planting management
 - 1.1.2.3 Weeding

ITEM	·
OUTPUT	Plan 1. Compare the effect of different weeding methods on growth and survival of Senna siamea
Technology Development	Compare the effect of clear weeding and slashing method on the growth and survival of Senna siamea
 Weeding (P.O 1.1.2.3)	Achievement 1. The experiments plot was established - 35% achieved
ACTIVITIES (PROGRESS)	Initial data has been taken Data (assessment) will continue monthly
CONSTRAINTS (COUNTERMEASURE)	1. Planting of the plot was carried out in November 1999

- 1. Develop practical techniques for establishment of farm forest in Semi-Arid- Areas .
- 1.1 Develop technology in the pilot forest
 - 1.1.2 Verification of intensive planting management
 - 1.1.2.4 Water regime
 - 1.1.2.4.1 Soil moisture

	1
ITEM	
OUTPUT technology Development	Plan The effect of soil moisture on growth of Senna siamea This verification is done once every month The area of the plot is 1 hectare
Soil moisture	Achievement 1. Data collection resumed in March 2000 after establishment of new experimental plot - 25% achieved
(P.O 1.1.2.4. 1)	
ACTIVITIES (PROGRESS)	1. Data collection continues
CONSTRAINTS (COUNTERMEASURE)	Data collection has resumed

- 1. Develop practical techniques for establishment of Farm in forest in Semi-Arid- Areas .
- 1.1 Develop technology in the pilot forest
 - 1.1.2 Verification of intensive planting management
 - 1.1.2.4 Water regime
 - 1.1.2.4.2 Sun- Heat shield effect and mulching

ITEM	
OUTPUT	Plan The effect of sun-Heat shield and mulching on growth of Senna siamea The area of the plot is 0.26 hectares
technology Development	
Sun- heat shield effect and mulching (P.O 1.1.2.4.2)	Achievement The experimental plot has been established (Nov,1999) as the design - 40% achieved
ACTIVITIES (PROGRESS)	Initial data has been carried out in March 2000
CONSTRAINTS (COUNTERMEASURE)	The experimental plot was established Initial data has been taken

Description of each item of the P.O.

- 1. Develop practical techniques for establishment of farm forest in Semi-Arid- Areas .
- 1.1 Develop technology in the pilot forest
 - 1.1.2 Verification of intensive planting management
 - 1.1.2.4 Water regime

1.1.2.4.3 Water stress

ITEM	·]
OUTPUT	Plan Effect of pruning on plant water relations (Water stress) This research is carried out 3 times a year
technology Development Water stress	Achievement Data collected as scheduled - 40% achieve
(P.O 1.1.2.4. 3)	This year research carried out once
ACTIVITIES (PROGRESS)	1. Data collection continues
CONSTRAINTS (COUNTERMEASURE)	1. No constraints.

Description of each item of the P.O.

- 1. Develop practical techniques for establishment of farm forest in forest in Semi-Arid- Areas .
 - 1.1 Develop technology in the pilot forest
- 1.1.2 Verification of intensive planting management
 - 1.1.2.4 Water regime

1.1.2.4.4 Evapotranspiration

ITEM	
OUTPUT	<u>Plan</u> Effect of evapotranspiration on water consumption and sap flow This research is carried out once per year
technology Development Evapotranspiration (P.O 1.1.2.4.4)	Achievement : Machine have will be installed by short term expert in the course of the project period when the trees attain a reasonable diameter - 40%
ACTIVITIES (PROGRESS)	 Heat pulse machine will be installed later Soil moisture probes have been installed Soil permeability test being conducted will be reconnected this year in the new experimental plot Evapotranspiration cuts will be installed in the new experimental plots
CONSTRAINTS (COUNTERMEASURE)	none

- 1. Develop practical techniques for establishment of farm forest in forest in Semi-Arid- Areas .
- 1.1 Develop technology in the pilot forest
 - 1.1.3 Verification of intensive planting management
 - 1.1.3.1 Monitoring of existing spacing plot

ITEM	·
OUTPUT	Plan Effect of spacing on growth and survival of of Senna siamea Senegal This research is done once per year
technology Development Monitoring of existing spacing plot (P.O 1.1.3.1)	Achievement Data collected as schedule -40 % achieved.
ACTIVITIES (PROGRESS)	1. Data collection continues
CONSTRAINTS (COUNTERMEASURE)	1. No constraints

- 1. Develop practical techniques for establishment of farm forest in Semi-Arid- Areas .
- 1.1 Develop technology in the pilot forest
 - 1.1.3 Verification of intensive planting management
 - 1.1.3.2 Study pruning of existing plot

ITEM	1
OUTPUT	Plan Effect of pruning on growth and survival of Senna siamea and Dalbergia melanoxylon 1. On the old plot of Senna siamea 2. Two new plots Senna siamea and Dalbergia melanoxylon
technology Development Study pruning of existing plot (P.O 1.1.3.2)	Achievement 1. 2nd pruning 40% achieved will be done later during the project period 2. Second pruning will carried out during the project period 40% achieved
ACTIVITIES (PROGRESS)	Data collection of the new plots have been carried out Old plot data already collected
CONSTRAINTS (COUNTERMEASURE)	 No constraints No constraints

- 1. Develop practical techniques for establishment of farm forest in Semi-Arid- Areas .
- 1.1 Develop technology in the pilot forest
 - 1.1.3 Verification of intensive planting management
 - 1.1.3.3 Study thinning of existing plot

	, -
ITEM	
OUTPUT	 Effect of thinning of growth and die back incidence of Senna siamea and A. indica New plot - Research postponed to December 2000 Construction of volume table of Senna siamea and A. indica
technology Development	
Study thinning of existing plot	No achievement due to postponement because the plot had very small trees
(P.O 1.1.3.3)	3. Plots identified and trees marked -40 % achieved
ACTIVITIES (PROGRESS)	 None Thinning postponed - tree still too young Data collection continues for Senna siamea
CONSTRAINTS (COUNTERMEASURE)	 No constraints The plots were too young to be thinned. Thinning postponed to December 2000. No. ready plot for A. indica No constraints

- 1. Develop practical techniques for establishment of farm forest in Semi-Arid- Areas .
- 1.1 Develop technology in the pilot forest
 - 1.1.3 Verification of intensive planting management
 - 1.1.3.4 Study Coppicing of existing plot

ITEM	,
OUTPUT	Plan 1. Coppicing ability of Senna siamea
technology Development Study Coppicing existing plot (P.O 1.1.3.4)	Achievement Coppicing done - 40% achieved
ACTIVITIES (PROGRESS)	1. Data collection has already started
CONSTRAINTS (COUNTERMEASURE)	1. No. constraints

- 1. Develop practical techniques for establishment of farm forest in Semi-Arid- Areas .
- 1.1 Develop technology in the pilot forest
 - 1.1.4 Establishment of wild fruit demonstration orchard

	•
ITEM	
OUTPUT	Plan 1. Establishment of Wild fruits demonstration orchard
technology Development Establishment of demonstration orchard (P.O 1.1.4)	Achievement 9 species planted - The area of this plot is 1.04 hectares - 40 % achieved
ACTIVITIES (PROGRESS)	Plot maintenance on-going (Weeding taking place)
CONSTRAINTS (COUNTERMEASURE)	Some seeds difficult to obtain. (constraints) Collaborate with other institutions get seeds.(countermeasure)

Record of the 2nd monitoring; Description of each item of the P.O.

1.Develop practical technique for establishment of farm forest in semi-arid area

1.1.Develop technology in the Pilot Forest

1.1.5. Suporting activity of technology development

1.1.5.1. Weather monitoring data

ITEM	
OUTPUT (farm forest establishment (technology))	Plan 1. Continue collecting weather (tempreture and raifall) data in Tiva nursery and the Pilot Forest.
Weather monitoring data (P.O. 1.1.5.1.)	Achievement 1. Temperature and rainfall data in Tiva nursery have been recorded since Nov. 1988. Temperature, rainfall, humidity and radiation data in the Pilot Forest have been recorded since Nov. 1997. Achievement: 50% (in case that achievement be 100% at the end of the project period(5 years period)
ACTIVITIES (Progress)	1. The highest-lowest thermometer and automatic rain gauge are set in Tiva nursery. In the Pilot Forest, probes were installed and data are recorded by data logger. An electronic simple rain gauge was installed in front of the dormitory in the KEFRI Kitui Center.
CONSTRAINTS (Countermeasures)	No constraints.

- 1. Develop practical techniques for establishment of farm forest in Semi-Arid- Areas .
- 1.1 Develop technology in the pilot forest
 - 1.1.5 Supporting activity of technology development
 - 1.1.5.1 Weather monitoring data

ITEM	
OUTPUT	<u>Plan</u> Collection of weather data
technology Development Weather monitoring data (P.O 1.1.5.1)	Achievement Weather data collected as scheduled 50 % achieved
ACTIVITIES (PROGRESS)	Data collection continues
CONSTRAINTS (COUNTERMEASURE)	Data logger was installed in new experimental plot

- 1. Develop practical techniques for establishment of farm forest in Semi-Arid- Areas .
- 1.1 Develop technology in the pilot forest
 - 1.1.5 Supporting activity of technology development
 - 1.1.5.2 Collection of references

175.4	·
ITEM	
OUTPUT	<u>Plan</u> Collection of reference materials This is still in progress
technology Development Collection of references (P.O 1.1.5.2)	Achievement 70 books acquired - 50% achieved
ACTIVITIES (PROGRESS)	Reference material collection continues.
CONSTRAINTS (COUNTERMEASURE)	No constraints

- 1. Develop practical techniques for establishment of farm forest in Semi-Arid- Areas .
- 1.1 Develop technology in the pilot forest
 - 1. 1.5 Supporting activity of technology development
 - 1.1.5.3 Management of experimental plot and road network

	· · · · · · · · · · · · · · · · · · ·
ITEM	
OUTPUT	Plan Management of experimental plots and road network
	1. Trial maps, trial sign board and trial registers
technology Development	Road map, road signboards and road registers Achievement
Management of experimental plot and road net work (P.O 1.1.3.3)	 Trial maps and trial registers are being compiled Trial signboards to be erected 40% achieved Road maps and road registers are compiled Road signboards to be erected 40% achieved
ACTIVITIES (PROGRESS)	 Preparing trial signboards Preparing trial signboards
	Z. Freparing that signiboards
CONSTRAINTS (COUNTERMEASURE)	 No constraints No constraints

1. Develop practical technique for establishment of farm forest in semi-arid area

1.1.Develop technology in the Pilot Forest

1.1.5. Supporting activity of technology development

1.1.5.4.Seed collection, production and supply of seedling

ITEM	
OUTPUT (farm forest establishment (technology))	Plan 1. Identify mother trees and collect high quality seed. 2. To produce and supply seedlings for the project in Tiva nursery.
Seed collection, production and supply of seedling (P.O. 1.1.5.4.)	Achievement 1. Seed procurement was done by collecting and buying seeds within and around Kitui area. Achievement:50% 2. About 20000 seedling in 1998 and 17000 seedlings in 1999 were produced and distributed for project activities. Achievement:50%
ACTIVITIES (Progress)	 Collection dates, collected area and quantity of seeds are recorded. Among the seedlings produced in 1998, 500 for the Pilot forest, 1,100 for the On-farm experiment, 600 for extension and training, 6,700 for farmers and others, totally 12,000 were distributed. Among the seedlings produced in 1999, 700 for the Pilot forest, 700 for On-farm, 800 for extension and training, 8,700 for farmers were distributed and 3,100 were sold to farmers.
CONSTRAINTS (Countermeasures)	 There are no clear standards of selecting mother trees because there are no common understanding of what a "good" tree is. The list of mother trees has not been utilized well. Annual plan of producing seedlings is necessary, considering the planting plan in each section in the project and farmers needs.

1. Develop practical technique for establishment of farm forest in semi-arid area

1.1.Develop technology in the Pilot Forest

1.1.5. Supporting activity of technology development

1.1.5.5.Management of Tiva arboretum

ITEM	
OT MIDTIN	Plan
OUTPUT	1. To manage and maintain Tiva arboretum and seed stands located
(farm forest establishment	next to Tiva nursery.
(technology))	
Management of Tiva	Achievement
arboretum	1. Tending has not been done this year on the arboretum.
(P.O. 1.1.5.5.)	Achievement:0%
	2. Weeding, slashing and pruning were done at the seed stands. Achievement: 50%
	1. Weeding, slashing and pruning were done at the seed stands.
	2. Since Acacia holosericea trees died, seedlings or other species were
	planted in Nov. 1999. The species are Dalbergia sisso, Eucalyptus
ACTIVITIES	camaldurensis and Prosopis pallida.
(Progress)	
	1. Labels should be placed to make it more informative.
CONSTRAINTS	
(Countermeasures)	
,	

- 1. Develop practical techniques for establishment of farm forest in Semi-Arid- Areas .
- 1.1 Develop technology in the pilot forest
 - 1.1.5 Supporting activity of technology development
 - 1.1.5.6 Protection of human and animal damage

ITEM	
OUTPUT	Plan Protection of human and animal damage 1. Patrolling/erection of Road barriers 2. Erection of dead fence around plots
technology Development	Achievement
Protection of human and animal damage	The three barriers were repaired Patrolling intensified 25% achieved
(P.O 1.1.5.6)	2. Reinforcement of plot fences - 50% achieved
ACTIVITIES (PROGRESS)	Patrolling to continued Fencing of plots to continue
CONSTRAINTS (COUNTERMEASURE)	Poaching of Mellia volkensii and Eucalyptus(constraints) Illegal grazing(constraints) Intensification of patrolling(countermeasures)

- 1. Develop practical techniques for establishment of farm forest in Semi-Arid- Areas .
- 1.1 Develop technology in the pilot forest
 - 1.1.5 Supporting activity of technology development
 - 1.1.5.7 Study on work efficiency

	1
ITEM	
OUTPUT	<u>Plan</u> Study on work efficiency Daily work Report on a daily basis
technology Development	Achievement
Study on work efficiency	Data collected as scheduled using daily work report - 50% achieved
(P.O 1.1.5.7)	
ACTIVITIES (PROGRESS)	Data collection daily Started Analysis for the already collected data have
CONSTRAINTS (COUNTERMEASURE)	No constraints

- 1. Develop practical techniques for establishment of farm forest in Semi-Arid- Areas .
- 1.1 Develop technology in the pilot forest
 - 1.1.6 Response to challenge in on-farm and extension

ITEM	
OUTPUT	Plan 1. To monitor the response to challenges in on-farm and extension
technology Development Response to challenges in on-farm and extension (P.O 1.1.6)	<u>Achievement</u>
ACTIVITIES (PROGRESS)	A waiting challenges from on-farm and extension sections of the project
CONSTRAINTS (COUNTERMEASURE)	None

1. Develop practical technique for establishment of farm forest in semi-arid area

1.2. Verify practical technologies by on-farm experiments

1.2.1.Farmers selection

1.2.1.1. Collection of physical and weather condition data

ITEM	
OUTPUT (farm forest establishment (technology))	Plan 1. To conduct resource survey, including an interview of farmers and data colletion of vegetation, soil type and weather.
Collection of physical and weather condition data (P.O. 1.2.1.1.)	Achievement 1. Ther resource survery was conducted and report produced. Achievement: 100%
ACTIVITIES (Progress)	1. "Socio-Economic and Resource survey of Kitui District report" was produced as an output of this activity in June 1998.
CONSTRAINTS (Countermeasures)	

1. Develop practical technique for establishment of farm forest in semi-arid area

1.2. Verify practical technologies by on-farm experiments

1.2.1.Farmers selection

1.2.1.2. Selection of representative farmers

ITEM	
OUTPUT (farm forest establishment (technology))	Plan 1. Select farmers where On-farm experiment is carried out.
Selection of representative farmers (P.O. 1.2.1.2.)	Achievement 1. Three farmers for 1998 On-farm experiment and six farmers for 1999 were selected. Achievement: 60%
ACTIVITIES (Progress)	 In 1999, one from Central Division, one from Kabati, two from Chuluni and two from Mutomo(Ikanga) were selected in consideration of; a) location b) adequate land to conduct experiment, and c) farmers willingness.
CONSTRAINTS (Countermeasures)	

1. Develop practical technique for establishment of farm forest in semi-arid area

1.2. Verify practical technologies by on-farm experiments

1.2.1.Farmers selection

1.2.1.3. Technology workshop for selected farmers

ITEM	
OUTPUT (farm forest establishment (technology))	Plan 1. Hold a technology workshop on farm forest for selected farmers.
Technology workshop for selected farmers (P.O. 1.2.1.3.)	Achievement 1. The second workshop was held from 13 to 15 Octber 1999. Achievement:66%
ACTIVITIES (Progress)	1. Participants were, 9 farmers for On-farm experiment, 37 farmers for farm forest, technical agents and DFEO.
CONSTRAINTS (Countermeasures)	1. October is not a suitable month for the farmers because they are busy for preparing their land for the coming rain.

1. Develop practical technique for establishment of farm forest in semi-arid area

1.2. Verify practical technologies by on-farm experiments

1.2.2.Verification of the technologies developed in the Pilot Forest

1.2.2.1. Water harvesting (Micro-catchment)

ITEM	
OUTPUT (farm forest establishment (technology))	Plan 1. Test the type of micro-catchment in the On-farm experiment and find a suitable one for better result in ASAL.
Water harvesting (Micro-catchment) (P.O. 1.2.2.1.)	Achievement 1. Trees were planted in the three experimental plots in Nov. 1988 and one experimental plot in Nov. 1999. Monitoring is going on. Achievement: 50%
ACTIVITIES (Progress)	 The species planted were Grevillea robusta in 1998 and Senna siamea in 1999. The treatments were a) V-shape, b) W-shape and c) control. The same experiment was replicated in each of the four farmers' plot. Data to be monitored are a) survival ratio, b) height and c) diameter at ground. The duration of monitoring is three months interval.
CONSTRAINTS (Countermeasures)	It is useful to measure the work norm to make V and W shape micro-catchment.

1. Develop practical technique for establishment of farm forest in semi-arid area

1.2. Verify practical technologies by on-farm experiments

1.2.2. Verification of the technologies developed in the Pilot Forest

1.2.2.2. Site preparation

ITEM	
OUTPUT (farm forest establishment (technology))	Plan 1. Test the different methods of site preparation in On-farm experiment and to determine the suitable method.
Site preparation (P.O. 1.2.2.2.)	Achievement 1. Trees were planted in the three experimental plots in Nov.1988. Monitoring is going on. Achievement: 50%
ACTIVITIES (Progress)	 The species planted was Melia volkensii. The treatments were, a) oxen plough, b) hand plough and c) control. The same experiment was replicated in each of the farmer's plot. Data to be monitored are a) survival ratio, b) height and c) diameter at ground. The duration of monitoring is three months interval.
CONSTRAINTS (Countermeasures)	

1. Develop practical technique for establishment of farm forest in semi-arid area

1.2. Verify practical technologies by on-farm experiments

1.2.2. Verification of the technologies developed in the Pilot Forest

1.2.2.3. Hole size

ITEM	
OUTPUT (farm forest establishment (technology))	Plan 1. Test different hole sizes in the On-farm experiment and find an optimum hole size.
Hole size (P.O. 1.2.2.3.)	Achievement 1. Trees were planted in the three experimental plots in Nov.1988. Monitoring is going on. Achievement:50%
ACTIVITIES (Progress)	1. The species planted was Azadirachta indica in 1998. The treatments were a) 20*20cm, b) 45*45cm and c) 60*60cm. The same experiment was replicated in each of the three farmers' plot. 2. Data to be monitored are a) survival ratio, b) height and c) diameter at ground. The duration of monitoring is three months interval.
CONSTRAINTS (Countermeasures)	

1.Develop practical technique for establishment of farm forest in semi-arid area

1.2. Verify practical technologies by on-farm experiments

1.2.2. Verification of the technologies developed in the Pilot Forest

1.2.2.4. Weeding (complete, slashing, spot)

ITEM	
OUTPUT (farm forest establishment (technology))	Plan 1. Test different methods of weeding in the On-farm expariment to determine a suitable method.
Weeding (complete, slashing, spot) (P.O. 1.2.2.4.)	Achievement 1. Trees were planted in two experimental plots in Nov. 1999. Monitoring is going on. Achievement: 33%
ACTIVITIES (Progress)	 The species planted were Azadirachta indica and Senna siamea. The treatments were, a) complete weeding, b) spot weeding and c) slashing. The experiment was replicated in each of the two farmers' plot. Data to be monitored are a) survival ratio, b) height and c) diameter at ground. The duration of monitoring is three months interval.
CONSTRAINTS (Countermeasures)	

1.Develop practical technique for establishment of farm forest in semi-arid area

1.2. Verify practical technologies by on-farm experiments

1.2.2. Verification of the technologies developed in the Pilot Forest

1.2.2.5. Pruning

ITEM]
OUTPUT (farm forest establishment (technology))	Plan 1. Test different pruning height in an On-farm experiment and to determine the optimum pruning height.
<u>Pruning</u> (P.O. 1.2.2.5.)	Achievement 1. Nothing has been done. Achievement:0%
ACTIVITIES (Progress)	
CONSTRAINTS (Countermeasures)	1. This item shall be done from the 4th year of the Project. The experiment shall be done using the plot of 1998 and 1999. However, the plots are still young.

1.Develop practical technique for establishment of farm forest in semi-arid area

1.2. Verify practical technologies by on-farm experiments

1.2.3. Introduction of new technology

1.2.3.1. Fruit trees

ITEM	
OUTPUT (farm forest establishment (technology))	Plan 1. Test and find a suitable species / varieties in an On-farm experiment.
Fruit trees (P.O. 1.2.3.1.)	Achievement 1. Grafted seedlings of fruit species were planted in nine on-farm experiment farmers. Achievement:50% (the second year of four years duration)
ACTIVITIES (Progress)	 Grafted seedlings of Mangifera indica and citrus species were planted in three farmers in 1998. The names of the varieties of mangoes are Apple, Tommy and Harden. Those of citrus species are Washington navel and Tangerine. Grafted seedlings of M. indica were also planted in 6 farmers in 1999. The varieties are Apple, Tommy, Harden, Ngowe, Sensation and Kent.
CONSTRAINTS (Countermeasures)	

1.Develop practical technique for establishment of farm forest in semi-arid area

1.2.Verify practical technologies by on-farm experiments

1.2.3. Introduction of new technology

1.2.3.2. Fodder trees

ITEM	
OUTPUT (farm forest establishment (technology))	Plan 1. Test and identify suitable fodder tree species in the On-farm experiment.
Fodder trees (P.O. 1.2.3.2.)	Achievement 1. Five fodder species were planted in four on-farm experiment farmers in 1999. Achievement:33% (the first year of three years duration)
ACTIVITIES (Progress)	 The species planted were Leucaena leucocephala, Prosopis juliflora, Prosopis pallida, Calliandra calothyrsus and Melia volkensii. Some are planted as line planting and others are planted as 3.5 by 3.5 m. Corns and peas were planted among the trees by some farmers.
CONSTRAINTS (Countermeasures)	Some p.pallida, p.juliflora are attacked by scale insects and dik diks. Some L.leucocephala are attacked by termites.

1. Develop practical technique for establishment of farm forest in semi-arid area

1.2.Verify practical technologies by on-farm experiments

1.2.4. Weather monitoring and soil sampling

ITEM	
	<u>Plan</u>
OUTPUT	1. To collect rainfall data on On-farm experiment.
(farm forest establishment	2. To carry out soil survey on On-farm experiment.
(technology))	
Weather monitoring and	Achievement
soil sampling	1. Simple rain gauges were installed in 20 farmers in the project
(P.O. 1.2.4)	target area. Monitoring is on going. Achievement: 40%
	2. Soil profile survey was conducted. Achievement 80%
ACTIVITIES (Progress)	 The rain gauges were installed in 6 farmers in 1998 and 14 farmers in 1999 including Mutomo division. Soil profile survey was done by Dr. Takato, a short-term expert for soil survey. He surveyed 30 farmers and classified 6 types of soil.
·	
CONSTRAINTS	
(Countermeasures)	·

1. Develop practical technique for establishment of farm forest in semi-arid area

1.3. Prepare technical manuals

1.3.1. Data collection and management

ITEM	
	Plan
OUTPUT	1. To collect and file the data from all experimental plots including
(farm forest establishment	those of the previous projects.
(technology))	
Data collection and	Achievement
<u>management</u>	1. The data of previous projects has been collected and filed.
(P.O. 1.3.1.)	Achievement: 20%
	1. Available data of past experiments are being collected and filed by
	each item.
A CONTAGNIEC	
ACTIVITIES	
(Progress)	
	1 Information on the agreement such as also all the subject to
	1. Information on the experiment such as place and data could not be identified in many cases.
CONSTRAINTS	2. Some data have been missing.
(Countermeasures)	2. Come dava nave been missing.
(Countermeasures)	
L	

1. Develop practical technique for establishment of farm forest in semi-arid area

1.3. Prepare technical manuals

1.3.2. Data analysis

ITEM	
	Plan
OUTPUT	1. To analyze collected data in order to prepare manuals.
(farm forest establishment	
(technology))	
D. I.	A.L:
Data analysis	Achievement
(P.O. 1.3.2.)	1. Some of available data have been compiled.
	Achievement: 20%
	1. Available information are being collected by each sector.
ACTIVITIES	
(Progress)	
(Frogress)	
	1. Available data of the Technology development sector are not enough
	for analyzing and compiling some of the manuals and need to be
CONSTRAINTS	covered with data of other sources.
(Countermeasures)	

1. Develop practical technique for establishment of farm forest in semi-arid area

1.3. Prepare technical manuals

1.3.3. Preparation of manuals

ITEM	
OUTPUT (farm forest establishment (technology))	Plan 1. Prepare 13 manuals. (Increase of the number of manuals from 3 to 13 was proposed in July 1999.)
Preparation of manuals (P.O. 1.3.3.)	Achievement 1. A manual on seed collection was compiled and published.
	Achievement:8% 1. Preparation of some manuals is going on.
ACTIVITIES (Progress)	
CONSTRAINTS (Countermeasures)	1. Time constraint among the persons in charge.

Description of each item of the PO:

- 2 Design, establish, monitor and evaluate farm forest
- 2. 1 Establish form forest in SFTP (II) target area
- 2.1.1 Select target farmers

OUTPUT	Plan ■ Six farmers to be selected from the previous SFTP (II) target areas for farm forest establishment.
(PO 2.1.1)	Achievement (100 %) Two farmers per division in the three division (Central, Kabati and Chuluni) totaling to six farmers were selected.
Activities (Progress)	 This included: Pre-selection survey using existing data from previous SFTP (II). The first selection survey by the project technical assistants. The second selection survey by the project senior staff. The final selection using some criteria based on the data collected from the second selection.
Constraints & Countermeasures	None

Description of each item of the PO:

- 2 Design, establish, monitor and evaluate farm forest
- 2. 1 Establish farm forest in SFTP (II) target area
- 2, 1, 2 Conduct profile survey on selected targets

	Plan Collect detailed information on the six selected farmers to understand the farmers' status quo and to capture farmers' needs.
OUTPUT	
(PO 2.1.2)	Achievement (100 %) Profile survey was conducted on the six target farmers and important information to be reflected for designing farm forests were collected and compiled.
Activities (Progress)	This included: Interview to farmers using on already prepared questionnaire. Compass measurement and sketch mapping of the farmers land.
	None
Constraints	
&	
Countermeasures	

Description of each item of the PO:

- 2 Design, establish, monitor and evaluate farm torest
- 2. ! Establish farm forest in SETP (II) target area
- 2.1.3 Design target farm forests

	Plan Design farm forests on the sex selected farmers based on their needs and preferences.			
OUTPUT				
(PO 2.1.3)	Achievement (100 %)			
	The six farm forests were designed and compiled as scheduled.			
	The types of tree planting designed included:			
	• windbreak.			
	• woodlot			
	• fruit orchard			
	live fencing			
	borderline			
	Suitable species to be planted for the above-mentioned types of tree			
	plantings were decided.			
	Hole sizes were 60 x 60 cm for fruit orchard and 45 x 45 cm for others.			
	Spacing were 5 x 5 m for fruit orchard and 4 x 4 m for others except for live			
	fencing (50 x 50 cm).			
	Trench method was also applied for live fencing.			
	This included:			
	Identification of the planting sites.			
	Species selection.			
Activities	Measurement of planting sites and designing layout of the trees planted.			
(Progress)	Staking of the plots.			
	All the works above-mentioned were done together with farmers.			
Constraint &	None			
Countermeasures				

Description of each item of the PO:

- 2 Design, establish, monitor and evaluate farm forest
- 2. 1 Establish farm forest in SFTP (II) target area
- 2.1.4 Establish farm forests

OUTPUT (PO 2.1.4)	Plan ■ The six target farm forests to be established based on the design made with farmers.
	Achievement (100 %) All the six farm forests were established as scheduled. A total of 675 seedlings of 11 species were planted. These are: M. indica (grafted), C. papaya, Citrus cinensis (budded), G. robusta, S. siamea, M. volkensii, D. caffra, C. lusitanoca, C. cunninghamoana, Ficus benjamina and A. indica.
Activities (Progress)	 This included: Provision of technical assistance, both theoretically and practically, for all the necessary process to establish farm forests. (site preparation, pitting, soil mixing with manure, soil refilling, construction of water catchment, planting and bottle watering) Distribution of some seedlings, mainly improved fruit trees which were not easily available.
Constraints & Countermeasures	None

Description of each item of the PO:

- 2 Design, establish, monitor and evaluate farm forest
- 2. 1 Establish farm forest in SFTP (II) target area
- 2. 1. 5 Monitor the establishment of farm forests

	 Plan Monthly monitoring of the six target farm forests after establishment up to the end of the project period.
OUTPUT (PO 2.1.5)	Achievement (50 %) activity is still ongoing. Up to date, 24 monitoring sheets (4 per farmer) have been filled. Field information notebooks were installed to all six farmers' place to supplement monthly monitoring and to record any findings observed by any visitors.
Activities (Progress)	 Preparation of monitoring sheet. Monthly monitoring by the project TAs and DFEO. Compilation of data collected from monitoring sheet and from field information notebooks.
Constraints & Countermeasures	 Some few problems have so far noted. Termite attack (ash was applied to protect seedlings) Nematodes and caterpillar on citrus Several C. papaya turning up to be male (operation for changing sex and replacing were done)

Description of each item of the PO:

- 2 Design, establish, monitor and evaluate farm forest
- 2. 1 Establish farm forest in SFTP (II) target area
- 2 1.6 Record keeping

	Plan Keep record of all information regarding establishment of farm forests
OUTPUT (PO 2.1.6)	 Achievement (50 %) Activity is still ongoing. Information on selection of targets, profile survey, design, establishment and monitoring have been recorded. Any other relevant information on farm forestry is being recorded through use of field information note installed at farmers' place.
	 Information and record keeping through use of monitoring sheet and field information note.
Activities (Progress)	
Constraints & Countermeasures	None

Record of the 1st monitoring;

- 2. Design, establish, monitor and evaluate farm forest
- 2.2 Collect and analyze information concerning establishment of farm forest
- 2.2.1 Review of SFTP (II) extension approaches

ITEM	
Extension Method and Information	Plan Review the reports on extension approaches conducted during SFTP(II) and find out or learn crucial points for establishment of farm forests through experiences.
Review of SFTP II extension approaches (P.O. 2.2.1)	Achievement - The results of reviewing all six extension approaches were compiled as a report. Achievement 100%.
Activities (Progress)	 All six extension approaches conducted in SFTP (II) shown below were reviewed mainly by using six reports written during SFTP(1) and (II); Model farmers approach, Small scale nursery approach, Demonstration plot approach, peoples plantation approach and seedling distribution. While reviewing the model farmers approach, an interview was made with a few of the previous model farmers to supplement data which the reports lacked. A report of the review of Social Forestry training project phase II extension approaches was compiled as the results of the above activities. The reports were circulated to members of farm forest establishment section.
Constraints (Countermeasures)	In some cases supportive data was not included in the reports written during SFTP.

Record of the 2 monitoring 2000:

- 2. Design, establish, monitor and evaluate farm forest
- 2.2 Collect and analyse information concerning establishment of farm forest
- 2.2.2 Conduct general conditions survey in target areas

ITEM	
Extension Method and Information	Plan General conditions survey at division level should be conducted in five Divisions. General condition at location level should be surveyed through questionnaire.
Conduct general conditions survey in target areas (P.O. 2.2.2)	Achievement General conditions survey at division level was conducted and the first draft of the report was compiled. Data collected through questionnaire from locations is being analyzed. Achievement 80%.
Activities (Progress)	 General conditions of five Divisions (Central, Chuluni, Kabati, Mutomo, Mutitu) had been surveyed by reviewing literatures and collecting information from DFEOs from the end of 1997 to the beginning of 1998. The first draft of a report on it was compiled. Questionnaire on general conditions were handed to 33 location Chiefs in six Divisions collected around March and April in 1998. Data analysis and report writting on-going. The data has been analyzing. The final draft of report implying results of the two surveys is being compiled.
Constraints (Countermeasures)	 Data collected through questionnaire from location Chiefs had low credibility and inappropriate to the questions. Some items of general condition at Division level were very difficult to be collected due to lack of publications.

2. Design, establish, monitor and evaluate farm forest

2.2. Collect and analyze information concerning establishment of farm forest

2.2.3. Conduct forest resource survey

ITEM	
OUTPUT (farm forest establishment (technology)) Conduct forest resource survey (P.O. 2.2.3.)	Plan 1. to make a forest resource inventory report including maps, by using of GPS, satellite photo, ground survey, etc. Achievement 1. A tentative GIS system was established and a tentative report inclding satellite photos was prepared.
(1.0. 2.2.3.)	Achievement: 50%
ACTIVITIES (Progress)	1. Dr. Hirata, the short term expert, visited and surveyed the project area. He inputted a lot of geographical data, like roads, borderlines, agro-climatic zones, into a GIS(geographical information system) in the windows machine.
CONSTRAINTS (Countermeasures)	The satellite photographs brought by Dr. Hirata were not clear enough because of clouds. The clearer photograph will be brought when he visit next time.

Description of each item of the PO:

- 2 Design, establish, monitor and evaluate farm forest
- 2. 2 Collect and analyze information concerning establishment of farm forest
- 2. 2. 4 Conduct survey for general condition of individual farmers in target areas

OUTPUT (PO 2.2.5)	Plan Conduct socio-economic and natural resource survey in 4 divisions of Kitui District, Mutomo, Kabati, Chuluni and Central. Achievement (100 %)
	A socio-economic and resource survey report was published. The survey was conducted using a pre-designed semi-structural
Activities (Progress)	questionnaire. Clustered random sampling technique was used. Each location in a division constituted one cluster. Sample homes were then selected randomly from each location. The survey was conducted by Japanese experts and Kenyan counterparts from both KEFRI and FD.
Constraints & Countermeasures	Inaccessibility to target areas due to poor road condition.

SOFEM Record of the 2nd Monitoring 2000

Description of each item of the P/O

- Design, establish, monitor and evaluate farm forest
 Formulate strategic plan for promoting farm forest establishment by local residents
 Set up guideline for farm forestry establishment 2.3
- 2.3.1

	Plan Formulate a guideline for farm forest establishment to be used by extension agents.
OUTPUT (P/O 2.3.1)	Achievement (80%) Activity still on-going Editing of second edition on-going
Activities (Progress)	Drafting of second edition to describe possible options for establishing farm forests by extension agents.
Constraint & Countermeasures	None .

SOFEM Record of the 2nd Monitoring 2000

- Description of each item of the P/O

 Design, establish, monitor and evaluate farm forest

 Formulate strategic plan for promoting farm forest establishment by local residents

 Identify appropriate approaches for target farmer selection
- 2 2.3 2.3.2

Section:	Farm Forest	Establishment	(Extension)

	Plan To identify appropriate SOFEM extension approaches for selection of target farmers.
OUTPUT (P/O 2.3.2)	
(170 2.3.2)	Achievement (100%) Identified three approaches viz.
	♦ Group approach♦ Village approach
	♦ Individual approach
Activities (Progress)	 Relevant Information collection Joint meeting FD/KEFRI/JICA
Constraint & Countermeasures	None

SOFEM Record of the 2nd Monitoring 2000

- Description of each item of the P/O

 Design, establish, monitor and evaluate farm forest

 Formulate strategic plan for promoting farm forest establishment by local residents

 Select target areas

Section: Farm	Forest	Establishment	(Extension)
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Section: Farm Forest Establishment (Extension)	
	Plan Identify project target areas.
OUTPUT (P/O 2.3.3)	Achievement (100%) Three (3) divisions, i.e. Central, Kabati and Chuluni within Kitui District were identified as the project target areas.
	*
Activities (Progress)	 ◆ Analysis of the date on socio-economic and natural conditions in Kitui District. ◆ Joint meeting FD/KEFRI/JICA
Constraint & Countermeasures	None

SOFEM Record of the 2nd Monitoring 2000

- Description of each item of the P/O

 Design. establish. monitor and evaluate farm forest

 Formulate strategic plan for promoting farm forest establishment by local residents

 Conduct and monitor seed/seedling information system

Section: Farm Forest Establishment (Extension)		
	<u>Plan</u>	
	Develop a seed/seedling information system.	
OUTPUT		
(P/O 2.3.4)	<u> </u>	
	Achievement (50%)	
	 First issue of seed/seedling information was produced and distributed to all public places within the project target area. 	
	♦ Development of data collection sheet	
Activities	♦ Compilation of data collected	
(Progress)	♦ Production of first issue	
	·	
	None	
Constraint &		
Countermeasures		

- Description of each item of the P/O

 Design. establish, monitor and evaluate farm forest

 Formulate strategic plan for promoting farm forest establishment by local residents

 Conduct and monitor cost sharing information

Section: Farm Forest Esta	iblishment (Extension)
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ОИТРИТ	Plan Make sure potting materials (polythene tubes/ bags) are available locally in order to promote farm forestry by local residents.
(P/O 2.3.5)	Achievement (50%) Groups, individuals and institutions participated in cost sharing.
Activities (Progress)	 Preparation of the guideline Advertisement to the local communities Collection of orders from farmers Inspection of the appropriateness of the beneficiaries Delivery of cost-shared items to the farmers
Constraint & Countermeasures	Difficulty in prioritizing the potential beneficiaries within the limited budget

- Description of each item of the P/O
 Design, establish, monitor and evaluate farm forest
 Establish farm forests
 Train extension agents

Section: Farm Forest Est	Plan To equip technical assistants with the necessary technical knowledge for establishing farm forests.
OUTPUT (P/O 2.4.1)	Achievement (50%)
	 Two weeks course was organized and thirteen participants from the project and FD attended.
	 Three days OJT was organized for project headforemen and target farmers.
	 Preparation of course program and training materials. One-week course was conducted.
Activities (Progress)	 All TAS participated in the actual tree planting exercise, gave technical advises and demonstrated to the farmers as part of OJT program.
Constraint & Countermeasures	Difficulty in preparing training materials since farm forestry is a new concept

- Description of each item of the P/O
 Design, establish, monitor and evaluate farm forest
 Establish farm forests
- 2.4.2 Select target farmers

Section: 1 arm 1 orest Est	<u>Plan</u>
	To select target farmers from the project target areas.
OUTPUT (P/O 2.4.2)	Achievement (30%) A total of thirty one farmers were selected for farm forestry establishment. Ten farmers were selected from both chuluni and central and eleven from kabati division for farm forestry establishment
Activities (Progress)	 This included: Nomination of farmers using the three approaches of Village, individual, and group. Profile survey using a prepared questionnaire Selection of farmers using a set of criteria such as accessibility, willingness, interest, and openness.
Constraint & Countermeasures	None

- Description of each item of the P/O
 2 Design. establish. monitor and evaluate farm forest
- 2 2.4 Establish farm forests
- 2.4.3 Train target farmers

Section, Larin Lorest	Listablishment (Extension)
1	Plan Plan
	To conduct training course for target farmers.
OUTPUT	
(P/O 2.4.3)	
(4.0 =)	Achievement (30%)
	<u> </u>
	A total of 46-target farmers were trained through the training course and study tour to similar projects.
Activities (Progress)	 Preparation of course program and training materials Conduct training course Conduct study tour to similar projects.
	None
Constraint &	
Countermeasures	
	

- Description of each item of the P/O
 Design. establish. monitor and evaluate farm forest
 Establish farm forests
- Establish farm forests
 Conduct profile survey on selected target farmers 2.4.4

Section: Farm Forest Esta	
	Plan To collect detailed information from selected farmers to understand farmers' status quo and capture their needs.
OUTPUT (P/O 2.4.4)	
(170 2.4.4)	Achievement (30%)
	Profile survey was conducted on the thirty-one farmers and relevant information in relation to farm forestry collected and compiled.
Activities (Progress)	 Interview farmers using an already prepared questionnaire. Sketch mapping of the farmers land
	·
Constraint & Countermeasures	None

$\begin{array}{c} SOFEM \\ Record of the \ 2^{nd} \ Monitoring \ 2000 \end{array}$

- Description of each item of the P/O

 Design, establish, monitor and evaluate farm forest

 Establish farm forests

 Design target farm forests

	Plan Design farm forests on the thirty-seven target farmers.
OUTPUT (P/O 2.4.5)	Achievement (30%) Design farm forests on thirty-seven farmers and compile as scheduled. The tree planting practices designed included; Woodlots Fruit orchards Live fence Borderline Windbreaks
Activities (Progress)	This included: ◆ Site selection ◆ Species selection ◆ Measurement of planting sites and design layout of the trees planted ◆ Staking All activities were done in collaboration with farmers.
Constraint & Countermeasures	None

- Description of each item of the P/O
 Design, establish, monitor and evaluate farm forest
 Establish farm forests
- Establish farm forests 2.4.6

Section: Farm Forest Establishment (Extension)	
	Plan To establish farm forests based on the designs made in collaboration with farmers.
OUTPUT	
(P/O 2.4.6)	Achievement (30%) ◆ All the thirty-one newly selected farms were established and the six (6) established farms extended ◆ A total of 2,372 different species were planted most of them under costing sharing system.
Activities (Progress)	 Procurement of improved fruit seedlings and other forest trees and distribution. Provision of technical advises on all processes concerning farm forestry such as site preparation, pitting, soil mixing and refilling, construction of water catchment and watering techniques.
Constraint & Countermeasures	None

- Description of each item of the P/O
 Design, establish, monitor and evaluate farm forest
 Establish farm forests
- Monitor the establishment of farm forest 2.4.7

Section: Farm Forest Establishment (Extension)	
	Plan To monitor the progress of established farm forests.
OUTPUT (P/O 2.4.7)	Achievement (30%) Project TAS, FD TAS and DFEO continue monitoring exercise using an already prepared monitoring sheet.
Activities (Progress)	 Weekly monitoring of general health of surviving seedlings. Conduct quarterly assessment on established farm forests. Parameters monitored include Survival rates height girth diameter mortality reasons
Constraint & Countermeasures	Insufficient human resources and mobility of grass-root extension agent

- Description of each item of the P/O
 Design, establish, monitor and evaluate farm forest
 Establish farm forests
- Record keeping 2.4.8

Section: Farm Forest Establishment (Extension)	
OUTPUT	Plan Keep record of all information regarding the process and progress of farm forest establishment
(P/O 2.4.8)	Achievement (30%)Activity still ongoing Accumulated information related to farm forestry activities has been recorded.
Activities (Progress)	Information collection and recording through use of farmers visitors/record books and monitoring sheets.
Constraint & Countermeasures	Inconsistency in recording by grass-root extension agents

$\begin{array}{c} SOFEM \\ Record of the \ 2^{nd} \ Monitoring \ 2000 \end{array}$

None

Constraint & Countermeasures

- Description of each item of the P/O
 Design, establish, monitor and evaluate farm forest
 Establish farmer to farmer extension

Section: Farm Forest Establishment (Extension)

Prepare programme for farmer to farmer extension 2.5.1

OUTPUT (P/O 2.5.1)	Plan To transfer necessary tree planting techniques to the communities surrounding target farmers through farmer to farmer extension system Achievement (100%) Concept paper produced.
Activities (Progress)	 ◆ Drafting of concept paper. ◆ Preparation of training programme.

- Description of each item of the P/O
 Design, establish, monitor and evaluate farm forest
 Establish farmer to farmer extension
- Conduct and monitor farmer to farmer extension programme 2.5.2

Section. 1	ar ill Forest Establishment (Extension)
OUTPUT (P/O 2.5.2)	Plan To transfer necessary tree planting techniques to the communities surrounding target farmers through farmer to farmer extension system
	Achievement (0%) Activity has not yet been commenced.
Activities (Progress)	
Constraint & Countermeasures	

$\begin{array}{c} SOFEM \\ Record \ of \ the \ 2^{nd} \ Monitoring \ 2000 \end{array}$

- Description of each item of the P/O

 Design, establish, monitor and evaluate farm forest

 Improve demonstration plots in Tiva (DEMO II)

 Develop and demonstrate practical farm forestry related technologies.

Section:	Farm Forest	Establishment	(Extension))

	<u>Plan</u>
	Develop and demonstrate practical farm forestry related technologies.
OUTPUT (P/O 2.6.1)	Achievement (50%)
	Eleven (11) appropriate farm forestry related technologies were initiated as below. Establishment of small-scale multipurpose trees/fruit/flower and vegetable nurseries Multipurpose tree planting and management Implementation of various agroforestry techniques Demonstration of various soil improvement techniques Establishment of an exotic /local fruit orchard Establishment of a domestic backyard food production garden Practicing of various efficient water use methods Construction of a family health enhancing kitchen unit, store and display wing Improved small holder farm tools Setting up of an improved traditional livestock pen Construction of a small holder seasonal fish pond Development of locally based pest control methods Installation of an improved and local bee hives
Activities (Progress)	 Introduction of dry land bamboo species including its uses Collection of relevant technologies from documents, visitors and visits Screening them through implementation meetings Designing Implementation Improving where necessary Publishing
Constraint & Countermeasures	Constraint Limited operational space Animal and insect damages Countermeasures Physical guarding. Screening of various environmentally safe pesticides Use of cultural control methods

- Description of each item of the P/O
 Design, establish, monitor and evaluate farm forest
 Improve demonstration plots in Tiva (DEMO II)
 Conduct and monitor OJT programme..

Section: Farm Fores	t Establishment (Extension)
	Plan

Section: Farm Forest Establishment (Extension)		
	Plan	
	Formulate, develop and implement the on-job-training (OJT) programme.	
OUTPUT (P/O 2.6.2)	Achievement (20 %)	
	Formulation, development and implementation of the on-job-training programme was initiated as below:	
	 Implementation of a number of practically oriented farmer's courses. Implementation of a number of practically oriented grass-root technical assistant's courses. 	
	 Hosting of various externally facilitated farmer's practical courses. 	
	Hosting of an institutional farm forestry practical course.	
	Conduction of a joint TA/Farmer rapid technology transfer practical course.	
	Technology transfer problem identification.	
	Development, advertisement of training venues.	
Activities	Identification of target trainees.	
(Progress)	Conduction of theoretical and practical on-station training.	
	Conduction of farm condition training.	
	Evaluation of training impact.	
	Conduction of follow-up surveys.	
	 Development of suitable extension tools to enhance rapid technology transfer to grass-root level, e.g. cost sharing system. 	
	Constraints Insufficient information on the existence of Tiva DEMO II facility	
Constraint &	Countermeasures	
Countermeasures	Effective advertisement.	

Description of each item of the P/O

Design, establish, monitor and evaluate farm forest
Feedback of technical knowledge of planting and tending trees into the Tec. Dep. Section

Section: Farm Forest Est	rahlishment (Extension)
OUTPUT (P/O 2.7)	Plan Feedback technical knowledge of planting and tending trees into the technology development section.
(170 2.77)	Achievement (20%) Continuous activity throughout the project period
	Information feedback is done through regular joint meeting between extension section and technology development section.
Activities (Progress)	 Monthly regular meeting between extension section and technology development section Regular monitoring and recording of the conditions of the seedlings. Conduct quarterly assessment on established farm forests. -Parameters monitored include -Survival rates -height -girth diameter -mortality reasons
Constraint & Countermeasures	None

- Description of each item of the P/O
 2. Design, establish, monitor and evaluate farm forest
- Intermediate evaluation

Section: Farm Forest Establishment (Extension)		
	Plan Evaluate the project activities and outputs and revise if necessary.	
OUTPUT (P/O 2.8)	Achievement (80%) To be completed during mid-term evaluation mission	
	Activities and outputs were reviewed and proposed change was made.	
Activities (Progress)	Review of activities and outputs Prepare the proposed change	
Constraint & Countermeasures	None	

$\begin{array}{c} SOFEM \\ Record of the \ 2^{nd} \ Monitoring \ 2000 \end{array}$

- Description of each item of the P/O
 2. Design, establish, monitor and evaluate farm forest
 2.9 Review of plan of farm forest establishment

Section: Farm Forest Establishment (Extension)		
OUTPUT	Plan Review project activities and outputs.	
(P/O 2.9)	Achievement (100%) To be endorsed during mid-term evaluation mission Activities and outputs were reviewed.	
Activities (Progress)	 Review of activities and outputs Prepare the proposed change 	
Constraint & Countermeasures	None	

RECORD OF MONITORING; DESCRIPTION OF EACH ITEM OF THE P.O.

- Collect, Synthesize and Disseminate Information on Social Forestry Extension Make Preparations for Information Activities
 Clarify Information Flow on Social Forestry Extension 3.
- 3.1
- 3.1.1

ITEM	
OUTPUT Extension Method and Information	PLAN To clarify internal and external information flow of FD, KEFRI and concerned institutions to collect and disseminate information on social forestry smoothly.
Clarify Information flow on Social Forestry Extension. (P.O. 3.1.1)	Achievements 1. Document has been published and distributed to other sections in the project. 2. The document shows the flow of information between KEFRI, FD, SOFEM/JICA, and other stakeholders. Achievement: 100%
ACTIVITIES (Progress)	The follow-up below is needed: 1 Compiling additional information for second edition. 2 Monitoring changes in forestry legislation
Constraints (Counter measures)	Quantitative data was largely lacking Existance of KEFRI and FD in separate ministries made drawing of document difficult
Counter measures	Document was drawn up with the option of revising later.

- Collect, synthesize and disseminate information on social forestry extension
 Make preparations for information activities
 Preparation of guideline for information activities

ITEM	
(Extension Method and Information)	Plan To prepare guidelines for information activities to organize and coordinate proper collection, storage and dissemination of information on SOFEM activites.
Preparation of guideline for information activities (P.O. 3.1.2)	Achievement The draft of guidelines has been prepared and is being checked for finalizing. Achievement: 70%
Activities (Progress)	A draft was prepared and circulated to members for comments. Final draft is under preparation by checking with the on-going document management system.
Constraints (Countermeasures)	No major constraints.

- 3. Collect, synthesize and disseminate information on social forestry extension
- 3.2 Hold regular meetings.

Plan Hold monthly meetings on SOFEM, information and extension activities.
<u>Achievements</u>
The meetings have been held as scheduled except for December and January when most members were on annual leave.
Achievement 35%
 Meetings have been held monthly at KEFRI Headquarters and FD Headquarters. All the minutes of the past meetings have been prepare.
 It is not easy to arrange transportation for some members. Poor communication equipment makes preparation of the meeting difficult.

- 3. Collect, synthesize and disseminate information on social forestry extension
- 3.3 Collect and analyze information from outside sources
- 3.3.1 Collect and analyze publications

ITEM	
(Extension Method and Information)	Plan The project will acquire a relevant collection of publications and set out a criteria for creating abstracts for ease of reference.
Collect and analyze publications (P.O. 3.3.1)	Achievement 1. Project continues to purchase and collect publications 2. Books purchased last year have arrived already. 3. Other publications have been received through information exchange. 4 Some abstracts have been made for use in Kitui Library. Achievements: 20%
Activities (Progress)	 A catelogue system of library is now in use in Kitui. Abstracts are being made from books bought in 1998.
Constraints (Countermeasures)	 Abstracting was first slow but will pick up. Kitui Librarian was trained in abstract making. It is decided to involve information section as a whole to participate in abstract making.

3.3.2 Exchange information with concerned institutions

ITEM	
(Extension Method and Information)	 * To exchange information with concerned institutions in Social Forestry through visiting or attending seminars. * To feedback useful information gathered through information exchange to the project activities.
Exchange information with concerned institutions (P.O. 3.3.2)	* The section staff visited two Projects in Rift valley and Western Province and final report has been prepared and distributed. Achievement 25%
Activities (Progress)	* The preparations for a visit to GTZ Embu are underway.
Constraints (Countermeasures)	None

- 3. Collect, synthesize and disseminate information on social forestry extension
- 3.3.3 Collect and analyse successful cases of established farm forests

	ITEM	
	(Extension Method and Information)	 Plan To visit successful cases of farm forestry and share experiences. Compile reports on such visits and give feedback to SOFEM. Two visits per year planned.
•	Collect and analyse successful cases of farm forestry. (P.O. 3.3.3)	Achievement - Visit made to Kajiado in March 1999 and report compiled. - Planning for a visit to Embu is in progress. Achievement 15%
	Activities (Progress)	 There was a visit to Kajiado and report compiled. Plans to visit Meru are at an advanced stage. Arrangements to visit two sites per year is in progress.
, v	Constraints (Countermeasures)	Some of the activities of the sites visited were not highly valuable. More information need to be collected before visiting.

- 3 Collect, synthesize and disseminate information on social forestry
- 3.4 Collect information accumulated through project activities
- 3.4.1 Keep record of project activities

ITEM	
(Extension Method and Information)	Plan Preparation of a system of how to manage records kept on SOFEM activities and compiling the project records into annual reports.
Keep record of project activites (P.O. 3.4.1)	*The KEFRI format of annual reports was adopted with only a few amendments and a SOFEM annual report for 1998 was prepared using this format. * A format for writing quarterly reports by each section was also developed. Quarterly reports for 1999 were prepared and these reports are being used to compile the 1999 SOFEM annual report. * Achievement: 35%
Activities (Progress)	* Quarterly reports for 1999 have been circulated to other sections for correction.
Constraints (Countermeasures)	*The format developed in 1998 for recording project activities was not put into use due to the project staff having too much work to fill the formats hence the production of SOFEM annual report for 1998 delayed. *Developing a format that is applicable to all sections of the project is difficult. * The system of managing project records has not yet been developed due to lack of knowledge.

- 3 Collect, synthesize and disseminate information on social forestry
- 3.4 Collect information accumulated through project activities
- 3.4.2 Collect information from farmers or extension agents

ITEM	
(Extension Method and Information)	Plan To collect and compile useful information on Social Forestry acquired by farmers or extension agents.
Collect information from farmers or extension agets (3.4.2)	*The twenty four sheets collected previously were compiled into a 2 page report. * The information collection sheet was reviewed and ammended. *During a T.A's and farmers' training course the importance of this activity and how to fill the information sheets was explained. Achievement 20%
Activities (Progress)	 * The format developed previously was amended. * DFEO's, Extension agents and farmers were instructed further on how to use the format. * Some farmers were visited and information collected. * 45 information sheets were filled. * Printing and compilation of the information is in progress.
Constraints (Countermeasures)	 * All the farmers contacted are giving information on medicinal utilization of trees. * Getting the botanical names of the tree species and shrubs mentioned by farmers is difficult.

- 3. Collect, synthesize and disseminate information on social forestry extension
- 3.5 Develop extension materials on establishment of farm forest for extension agents

ITEM	
(Extension Method and Information.	Plan To develop extension materials using SFTP II and SOFEM experiences for use by extension agents.
Develop extension material on establishment of farm forest for extension agents. (P.O. 3.5)	Achievement Some brochures, leaflets, manuals e.t.c. have been produced Achievement 35%
Activities (Progress)	Though this activity is scheduled for the year 2000 – 2001, based on the necessity of making some materials for extension works, brochures and leaflets e.t.c. have been produced. Examples of materials made are brochures of Enzaro – jiko, leaflets of water purification, picture story and a video of tree planting techniques.
onstraints (Countermeasures)	No major constraints.

RECORD OF THE SECOND MONITORING: DESCRIPTION OF EACH ITEM OF THE P.O.

- 3. Collect, synthesize and disseminate information on social forestry extension
- 3.6 Disseminate information through publications or events
- 3.6.1 Publish project newsletter

ITEM	
OUTPUT	Plan
(Extension Method and Information)	The Project will publish a newsletter with a circulation covering major areas of the project activities involving District Forest Officers, KEFRI Scientists, Government Ministry libraries, Research Institutes, Universities, Donors, Press, Industries, UN Agencies in Kenya and Non Governmental Organization dealing with forestry.
Publish project newsletter (P.O. 3.6.1)	Achievement 1. Published second issue of 2,000 copies Achievement: 15%
Activities (Progress)	Preparing to circulate newsletter to 1452 organizations Preparing to publish third edition of newsletter preparing to review guidelines for the next issue of newsletter
Constraints (Counter measures)	Keying work into computer was slow; only hard copies of the newsletter articles were provided
Counter measures	Muguga centre has acquired a modern computer, making editing work go faster A scanner has also been acquired enabling picture and sketch processing easier

RECORD OF THE SECOND MONITORING: DESCRIPTION OF EACH ITEM OF THE P.O.

- 3. Collect, synthesize and disseminate information on social forestry extension
- 3.6 Disseminate information through publications or events
- 3.6.2 Disseminate information through other media

ITEM	
(Extension Method and Information)	Plan Send information for publication through mass media and journals
Disseminate information through other media (P.O. 3.6.2)	Achievement 1. A video of Miti ni Mali is being dubbed for checking at KBC. TV. Achievement 10%
Activities (Progress)	 Contacts are being made with KBC Radio. JICA Kenya office is assisting to sponsor programme production on KBC. Media was identified - Radio and Newspaper
Constraints (Counter measures)	Due to limited finances, use of media will also be limited
Countermeasures	It is planned to interest KBC TV to carry out periodic programme recordings

- 3 Collect, synthesize and disseminate information on social forestry extension
- 3.6 Disseminate information through publications or events
- 3.6.3 Hold seminar on social forestry

ITEM	
(Extension Method and Information)	 PLAN To hold Social Forestry Seminars twice during the project life (1999 – 2002) To publicize SOFEM activities to share experiences and knowledge with other institutions.
Hold seminar on social forestry (P.O.3.6.3)	Achievement One of the proposed seminars was held in September, 1999 Achievement 45%
Activities (Progress)	 Preparation for seminar completed. Seminar successfully conducted in September, 1999. Proceedings compiled by Editorial Committee and dispatch of proceedings in progress. Copies distributed to members of PIC.
Constraints (Countermeasures)	The seminar went on smoothly with no major constraints.

3.6.4 Implement mobile show

ITEM	
	Plan
(Extension Method and Information)	 * Preparation of video show materials by checking those developed previously and considering their relevance. * Testing video equipment condition and show programme. * Selecting of target area and venue with the involvement of TA's. * Advertising the video show by communicating to the Chief and using posters.
Implement mobile show (P.O. 3.6.4)	* The section implemented 9 mobile shows, 3 in each division i.e. Central, Kabati and Chuluni. * The data collected during the show has been entered into the computer. Achievement: 20%
Activities (Progress)	* Introductory remarks by the organizers. * Distribution of the evaluation forms. * A short speech and official opening of the mobile show. * Mobile show sessions - Agroforestry - fuelwood by the organisers - Story picture - Miti ni Mali - Tree planting activities - Water purification (purifier) - Evaluation, questions and answer session - Collection of evaluation forms for compilation.
Constraints (Countermeasures)	None