

II-C

Social Forestry

Annex II C Social Forestry

II-C-1: Results of graveyard forest survey at three sampled villages of the MA

II-C-2: Format of questionnaire in firewood consumption

II-C-3: Firewood consumption of three sampled villages

II-C-4: Adapting technologies by afforestation components

Annex II-C-1: Results of graveyard forest survey at three sampled villages of the MA

Tree species growing in three sampled villages of the MA

Ndemanje Village		Nanjiwa Village		Kaumbata Village	
Local name	Scientific Name	Local name	Scientific Name	Local name	Scientific Name
1 Chinama	<i>Combretum collinum</i>	Chan'dimbo	<i>Cussonia arborea</i>	Bwemba	<i>Tamarindus indica</i>
2 Chipakasa	<i>Cussonia arborea</i>	Chinama	<i>Combretum collinum</i>	Chinama	<i>Combretum collinum</i>
3 Chipembere	<i>Xeromphis obovata</i>	Chipembere	<i>Xeromphis obovata</i>	Chipakasa	<i>Lonchocarpus capassa</i>
4 Chitimbe	<i>Bauhinia petersiana</i>	Chiteta	<i>Elephantorrhiza goetzi</i>	Chitimbe	<i>Bauhinia petersiana</i>
5 Kafupa	<i>Stereospermum kunthianum</i>	Chitimbe	<i>Bauhinia petersiana</i>	Kapasule	
6 Kakunguni		Chiumbu	<i>Brachystegia spiciformis</i>	Khope	
7 Kapasule		Futsa	<i>Vernonia amygdalina</i>	Mateme	<i>Strychnos spinosa</i>
8 M'bawa	<i>Khaya anthotheca</i>	Kadyabusa		Matowo	<i>Azanza garckeana</i>
9 M'ngongomwa	<i>Afzelia quanzensis</i>	Kapasule		Mchenje	<i>Julbernardia spp.</i>
10 Matowo	<i>Azanza garckeana</i>	Matowo	<i>Azanza garckeana</i>	Mfula	<i>Sclerocarya caffra</i>
11 Mkuyu	<i>Ficus capreifolia</i>	Mchenje	<i>Julbernardia spp.</i>	Mfungo	<i>Anisophylea pomifera</i>
12 Mlambe	<i>Adansonia digitata</i>	Mlambe	<i>Adansonia digitata</i>	Mlambe	<i>Adansonia digitata</i>
13 Mpoloni	<i>Steganotaenia araliacea</i>	Mlapeshe		Mlombwa	<i>Pterocarpus angolensis</i>
14 Mpoza	<i>Annona senegalensis</i>	Mombo	<i>Brachystegia bohemii</i>	Mphandula	<i>Bauhinia petersiana</i>
15 Msukamano	<i>Clerodendrum spp.</i>	Mpakasa	<i>Lonchocarpus capassa</i>	Mpoza	<i>Annona senegalensis</i>
16 Mulombwa	<i>Pterocarpus angolensis</i>	Mphando	<i>Bauhinia petersiana</i>	Mvunguti	<i>Kigelia africana</i>
17 N'dyapumbwa	<i>Melia azadarach</i>	Mpolowoni		N'goza	<i>Steculia africana</i>
18 N'thethe	<i>Acacia sieberana</i>	Mulombwa	<i>Pterocarpus angolensis</i>	N'ngongomwa	<i>Afzelia quanzensis</i>
19 Naphini	<i>Terminsria sericea</i>	N'khalagonkhoni		Naphini	<i>Terminsria sericea</i>
20 Nkalati	<i>Burkea africana</i>	Naphini	<i>Terminsria sericea</i>	Nchenje	<i>Margaretta rosea</i>
21 Nkotamo		Nc'chenje	<i>Margaretta rosea</i>	Njenjeti	
22 Nkundi	<i>Parkia filicoides</i>	Nkalati	<i>Burkea africana</i>	Nkhalankhanga	
23 Ntunda	<i>Turraea nilotica</i>	Nsolo	<i>Pseudolachnostylis maprouneifolia</i>	Nkhunkhu	<i>Acacia garpinii</i>
24 Setanyani	<i>Steculia quinqueloba</i>	Ntangatanga	<i>Albizia versicolor</i>	Nkuyu	<i>Ficus capensis</i>
25 Thombozi	<i>Diplorrhynchus condylocarpon</i>	Nthudza	<i>Flaucourtia indica</i>	Nsikidzi	<i>Piliostigma thoningi</i>
26		Mtumbu	<i>Kirkia acuminata</i>	Ntangatanga	<i>Albizia versicolor</i>
27		Phingo	<i>Dalbergia melanoxylon</i>	Nteme(Mateme)	<i>Strychnos spinosa</i>
28		Thombozi	<i>Vernonia amygdalina</i>	Nthethe	<i>Acacia sieberana</i>
29		Thonga		Nthuza	<i>Flaucourtia indica</i>
30		Tsamba	<i>Brachystegia spp.</i>	Ntondo	<i>Cordyla africana</i>
31				Ntonongoli	
32				Ntumbu	<i>Kirkia acuminata</i>
33				Phingo	<i>Dalbergia melanoxylon</i>
34				Thombozi	<i>Vernonia amygdalina</i>

Kaumbata graveyard			Ndemanje graveyard			Nanjwa graveyard located at Teula		
Tree #	dbh (cm)	Tree Species	Tree #	dbh (cm)	Tree Species	Tree #	dbh (cm)	Tree Species
1	36	Chinama	1	46	Chimbakasi	1	24	Chinama
2	24	Thombozi	2	6	Mpalo	2	14	Ntunda
3	22	Thombozi	3	6	Mpalo	3	14	Chinama
4	16	Thombozi	4	6	Mpalo	4	43	Msolo
5	23	Thombozi	5	6	Mpalo	5	6	Chinama
6	29	Thombozi	6	6	Mpalo	6	17	Mpenje
7	21	Thombozi	7	6	Mpalo	7	9	Tsamba
8	21	Thombozi	8	6	Mpalo	8	8	Folokona
9	51	Tonongoli	9	6	Mpalo	9	5	Chinama
10	39	Tonongoli	10	6	Mpalo	10	18	Nthenje
11	33	Thombozi	11	23	Chimbakasa	11	10	Chinama
12	9	Thombozi	12	20	Chimbakasa	12	13	Thombozi
13	21	Thombozi	13	13	Phingo	13	12	Kanthanyelere
14	15	Thombozi	14	7	Phingo	14	6	Chinama
15	27	Thombozi	15	38	Mphando	15	6	Folokona
16	35	Thombozi	16	32	Mphando	16	26	Chinama
17	33	Mpandula	17	19	Mphando	17	28	Minga
18	18	Mpandula	18	16	Mphando	18	22	Chinama
19	29	Mpandula	19	46	Ntonongoli	19	12	Folokona
20	30	Mpandula	20	5	Phingo	20	126	Ntondoloko
21	29	Mpandula	21	32	Chinama	21	108	Ntondoloko
22	32	Mpandula	22	19	Mphando	22	45	Mpakasa
23	12	Kapasule	23	11	Chimbakasa	23	10	Kafupa
24	25	Tsukamano	24	21	Mphando	24	16	Mtumbu
25	22	Tsukamano	25	19	Mphando	25	15	Chinama
26	48	Tsukamano	26	6	Phingo	26	13	Chinama
27	18	Tsukamano	27	24	Phingo	27	9	Phingo
28	19	Mpandula	28	10	Ntondoko	28	8	Folokona
29	36	Thombozi	29	10	Phingo	29	73	Ntheza
30	32	Mpandula	30	10	Phingo	30	15	Ntheza
31	29	Mpandula	31	10	Phingo	31	16	Ntheza
32	51	Thombozi	32	10	Phingo	32	56	Ntheza
33	53	Thombozi	33	10	Phingo	33	13	Ntumbu
34	23	Thombozi	34	10	Phingo	34	24	Chinama
35	19	Thombozi	35	10	Phingo	35	29	Chinama
36	26	Thombozi	36	10	Phingo	36	14	Mpoloni
37	28	Tsukamano	37	10	Phingo	37	27	Chinama
38	18	Mphangala	38	10	Phingo	38	17	Ntheza
39	13	Nthonyoli	39	10	Phingo	39	13	Ntumbu
40	23	Thombozi	40	10	Phingo	40	24	Chinama
41	23	Thombozi	41	10	Phingo	41	29	Chinama
42	23	Thombozi	42	10	Phingo	42	14	Mpoloni
43	24	Thombozi	43	10	Phingo	43	27	Chinama
44	25	Thombozi	44	12	Ntonongoli	44	17	Ntheza
45	32	Thombozi	45	10	Ntonongoli	45	45	Chiumbu
46	11	Mpandula	46	18	Chinama	46	25	Tsamba
47	33	Mpandula	47	16	Chinama	47	6	Khonje

Kaumbata graveyard			Ndemanje graveyard			Nanjwa graveyard located at Teula		
48	18	Ntunda	48	7	Phingo	48	58	Naphini
49	29	Mpandule	49	8	Phingo	49	38	Chinama
50	66	Mmpape	50	6	Phingo	50	28	Ntumbu
51	7	Mulembela	51	8	Phingo	51	55	Minga
52	6	Mtumbu	52	6	Phingo	52	6	Ntumbu
53	35	thombozi	53	7	Phingo	53	12	Tsamba
54	6	Mtumbu	54	17	Mphando	54	17	Nthenthanyelere
55	6	Mpolowoni	55	19	Mphando	55	56	Mtumbu
56	6	Mtumbu	56	9	Phingo	56	26	Nthenthanyelere
57	16	Mpandula	57	7	Phingo	57	58	Ntumbu
58	40	Thombozi	58	6	Phingo	58	6	Ntumbu
59	28	Mlembela	59	10	Phingo			
60	29	Thombozi	60	5	Phingo			
61	32	Mpandula	61	7	Phingo			
62	27	Mpandula	62	7	Phingo			
63	62	Thombozi	63	9	Phingo			
64	79	Naphini	64	10	Ntonongoli			
65	26	Mpandula	65	8	Chinama			
66	30	Mpandula	66	14	Chinama			
67	45	Mpandula	67	9	Chinama			
68	21	Mpandula	68	10	Kakunguni			
69	39	Mpandula	69	11	Kakunguni			
70	27	Mpandula	70	13	Ntonongoli			
71	18	Nchenje	71	27	Ntonongoli			
			72	182	Ntumbu			
			73	4	Folokona			
			74	13	Folokona			
			75	8	Folokona			
			76	7	Mphando			
			77	19	Tsamba			
			78	16	Ntundaa			
			79	11	Kanthepa			
			80	12	Chimphakasa			
			81	6	Mpalo			
			82	35	Ntonongoli			
			83	25	Ntonongoli			
			84	4	Mpalo			
			85	3	Nantana			
			86	7	Phingo			
			87	8	Phingo			
			88	9	Phingo			
			89	6	Phingo			
			90	10	Phingo			
			91	6	Phingo			
			92	21	Blastage			
			93	23	Blastage			
			94	7	Blastage			
			95	14	Blastage			
			96	10	Blastage			
			97	22	Blastage			

Kaumbata graveyard	Ndemanje graveyard		Nanjwa graveyard located at Teula
	98	34	Blastage
	99	8	Nchingachinga
	100	6	Nchingachinga
	101	5	Folokona
	102	5	Folokona
	103	5	Folokona
	104	5	Folokona
	105	5	Folokona
	106	5	Folokona
	107	5	Folokona
	108	5	Folokona
	109	5	Folokona
	110	5	Folokona
	111	5	Folokona
	112	5	Folokona
	113	5	Folokona
	114	5	Folokona
	115	5	Folokona
	116	5	Folokona
	117	5	Folokona
	118	5	Folokona
	119	5	Folokona
	120	31	Ntongoli
	121	28	Ntongoli
	122	16	Ntongoli
	123	21	Ntongoli
	124	13	Chimphakasa
	125	30	Chipembere
	126	12	Chipembere
	127	18	Thombozi
	128	44	Mpakasa
	129	28	Ntonongoli
	130	18	Ntonongoli
	131	24	Phingo
	132	24	Phingo
	133	22	Phingo

II-C-2: Format of questionnaire in firewood consumption

Format of the Questionnaire

1.	Name of household		
2.	Village Name		
3.	Total people in the household	Adults	Children
4.	Education attained by the household		
5.	Weight of typical headload from field		
6.	Time such headload lasts before it is completely used		
7.	Distance to the firewood collection sites	in Km	
8.	Time taken to fetch firewood in hours		
9.	Weight of bundles of wood in the compound		
10.	Time such bundle of wood lasts		
11.	Tree species mainly used for firewood in Kichewa		
12.	Amount of kerosene bought by the household	MI	Liters
13.	Time such kerosene lasts		
14.	Number of planted trees in the farm owned by the household	Species	No
15.	Source of tree seedlings or seeds for trees planted in the farmstead		
16.	Uses of trees planted in the farms		
17.	Observation and information on other uses of firewood		
18.	Observation on type of houses for the households sampled		

Note 1: Efforts were however made not to sample more than one household from each compound.

Note 2: A daughter who was married or single mother who had separate houses and cooking facilities from that of mothers in the same compound were regarded as separate households for the purposes of firewood consumption.

Note 3: Explanation that we needed to know the wood consumption data was made by the counterpart staff.

Note 4: Counterpart staff also supported the survey of tree species in Chichewa (local name).

II-C-3: Firewood consumption of three sampled villages

Firewood consumption of three sampled villages in the MA

Name	Household member.	Firewood Collection	Firewood consumption			Remarks
	No.	Annual hrs	Per person (kg)		Annual w/ IGAs	
Kaumbata village						
1 Jaffari Stanbi	6	104	1.0	279	279	Brick making
2 Aeme Chipeto	5	104	0.5	135	135	
3 Bosta Stima	4	104	0.5	124	124	
4 Luis Stima	7	104	0.5	139	139	
5 Jenifer Petro	5	104	1.5		405	
6 Julius Kachisa	17	104	0.5	143	143	
7 Ann Jamah	3	104	0.8	219	219	Fish smoke
8 Edith Ndinesi	7	208	0.5	144	144	
9 Esnati Ndinesi	2	208	1.6		429	
10 Anne James	3	234	0.7	190	190	
Sub total (Avg.)	59	138	0.8	172	221	
(Total)						
Nanjiwa village						
11 Lucia Isack	7	104	0.8	225	225	Making Kachasu
12 Dorothy Chaponda	4	26	0.9	236	236	
13 Kennedy Wawar	5	156	0.8	205	205	
14 Haliet Nelson	3	52	1.5		394	
15 Cidres Michael	4	104	0.9	236	236	
16 Titon Mapundo	5	104	1.1	286	286	
17 Daina Potani	3	156	1.0	273	273	Making Kachasu
18 Maritha Friday	6	104	0.6	158	158	
19 Stevalia Isaac	3	208	3.7		990	
20 Mae Mekeasi	5	156	0.9	243	243	
Sub total (Avg.)	45	117	1.2	233	325	
(Total)						
Ndemanje						
21 Mercy Joseph	5	156	1.4	369	369	Wood within compound
22 Mebulo Njangaza	2	156	1.2	328	328	Wood within compound
23 Alice Friday	3	104	2.0		533	Making Kachasu
24 Dinah Kausiwa	3	104	2.4		660	Making Kachasu
25 Patricia Grey	3	104	1.8		473	Making maze cake
26 Funny Wiledi	2	104	1.1	285	285	
27 Mrs Masire	4	52	1.0	268	268	
28 Beatrice Karongo	4	104	0.9	253	253	
29 Anne Kuchombo	8	156	0.3	93	93	
30 Aida daniel	4	104	0.8	215	215	
Sub total (Avg.)	38	114.4	1.3	259	348	
(Total)						
Total Average	4.7	123	1.1	219	298	

Note: The above data has no exact consistency with RRA result regarding a number of IGAs practicing household, because of sampling survey.

Annex II-C-4: Adoption of technologies by afforestation components

No	Forest type	Afforestation site	Technology	Species
1	Farmers' forest Individual woodlot (block of trees & scattered) Riverbank forest Planting boundaries Planting along gully erosion	Afforestation site allocated land	Weeded area Spa 2x2m or Weeded area by 4x4m Rapid growth, timber species Spot weeding & planting seedling by 1x1m -do- -do-	<i>Eucalyptus camadulensis</i> , <i>E. saligna</i> , <i>Melea azaderach</i> , <i>Toona ciliata</i> , <i>Leucaena leucocephala</i> <i>Bambusa vulgaris</i> etc.
2	Village forest AF nursery demo forest Trial village forest	Communal land	Screening and Planting. Leaving large indigenous trees intact. Spa 2x2 m Mixed forest Rapid growth species Mixed forest	<i>Gmelina arborea</i> , <i>Pterocarpus angolensis</i> , <i>Eucalyptus camadulensis</i> , <i>Senna siamea</i> , Acacia species, etc.
3	Public forest - Graveyard forest - Bore hole forest - Road side forest - School forest - Church / mosque forest	Public land	Expansion planting of indigenous trees in graves. Eucalyptus in schools. Spa 1x1m	<i>Zizyphus mauritiana</i> <i>Zizygium cordatum</i> <i>Albizia lebbeck</i> <i>Pterocarpus angolensis</i> <i>Khaya anthotheca</i> <i>Eucalyptus grandis</i> etc.
4	Rehabilitation of degraded natural vegetation	Communal land	Enrichment planting only with indigenous trees. Spa 10x10m	Mostly indigenous species eg <i>Lonchorcarpus capasa</i> , <i>Pterocarpus angolensis</i> , <i>Khaya anthotheca</i> etc.

Notes on technology:

- Hygienic practices will be practiced in tree nursery to avoid raising diseased plants.
- All forests will be planted from seedlings raised in tree nurseries.
- For private forests, technical rotation will be 8 years.
- Utilization of indigenous forests will strictly be based on selection felling.

II-D

Agriculture

II-D. Agriculture

Farm Economy Survey Data 1	II-D-1
Farm Economy Survey Data2	II-D-2
Farm Economy Survey Data3	II-D-3
Correlation among Factors Measured in Farm Economy Survey	II-D-4
Crop Composition and Farming Practices	II-D-5

Table D - 1 Farm Economy Survey Data 1

Data Number	1	2	3	4	5	6	7	8	9	10	11
Survey Date : Aug.2000	18	18	18	19	19	19	21	21	21	21	22
Name of Village	Makanani	Makanani	Teula	Chicoja	Makonoka	Kamata	Ndemanje	Ndemanje	Kumponda	Peter Bilila	Lemu
Name of Farmer	Edina	Anderson	Banda	Kodine	Edwar	Maliya	C.Yusuf	Kabotolo	Amiru Jefe	Ngondzo	Kuseli
Number of family member	5	5	8	5	7	8	10	4	8	4	4
Number of farm labor	2	2	4	2	4	2	4	4	4	2	2
Other income activities	dimba	dimba	dimba	0	0	veget	dimba	dimba	dimba	dimba	dimba
Number of hats	4	1	2	3	3	2	1	2	3	2	1
Number of farm parcels	3	2	2	3	1	3	3	2	3	4	1
Measured farmland area*	0.5	0.4	3.6	0.75	0.85	0.6	1.2	1.06	0.31	0.23	1.1
Sown area this year Maize %	70	80	80	70	80	90	85	80	90	95	90
Groundnut %	0	0	20	0	0	0	5	10	10	0	5
Sorghum %	10	20	10	20	0	10	5	5	0	0	5
Cassava %	10	0	0	10	0	0	10	0	0	5	10
Pigeon Pea %	20	20	10	30	30	10	20	25	10	25	2
Sweet potato/bean %	10	0	0	0	20	0	5	0	0	5	20
Harvest 2000 Maize (bag)	6	1	80	18	25	4	19	17	8	19	10
Groundnut (bag)	0	0	18	0	0	0	0.5	0	1	0	2
Sorghum (bag)	1	0.5	1	2	0	1	0.5	1.5	0	0	1
Cassava (kg)	50	0	0	1,000	0	0	200	0	0	0	200
Pigeon Pea (bag)	1	1	1	2	1	0.5	2	2	1	1	1
Sweet potato (kg)	30	0	0	0	150	0	100	0	0	150	0
Quantitv sold Maize (MK)	0	0	0	0	0	0	0	0	0	0	0
Groundnut (MK 12 / kg)	0	0	0	0	0	0	0	0	0	0	0
Sorghum (MK 7 / kg)	0	0	0	0	0	0	0	0	0	0	0
Cassava (kg) (MK 3 / kg)	0	0	0	600	0	0	150	0	0	0	0
Pigeon Pea (MK 12 / kg)	0	0	0	0	0	0	1	1	0	0	0
Sweet potato (MK 5 / kg)	0	0	0	0	100	0	70	0	0	120	0
Quantitv seed sown Maize (kg)	10	1	75	10	3	5	40	35	8	20	20
G'nut / Pigeon pea (kg)	1	0.2	1	1	1	0.5	0.5	0.5	0.4	0.3	0.5
Quantitv of CAN, DAP,	CAN1	CAN1	C.Ur2	Sttp 1	Sttp 1	0	CAN2	DP3.5	DAP2	CAN1	CAN1
green manure/dung /residue	0	0	res 2	res 2	res 1	res 1	res 1	res 1	c.dung	0	g.dung
Applied crop	dimba	dimba	both	upland.	upland.	upland.	upland.	upland.	dimba	dimba	dimba
Aericultural Chemicals	ripcon	ripcon	rip.act	sevin	-	-	-	-	-	-	sevin
Applied crop	dimba	dimba	upland	upland	-	-	-	-	-	-	dimba
Theft, diseases and pests	M.Bug	M.Bug	M.Bug	grasshp	s.borer	grasshp	s.borer	M.Bug	locust	blight	aphid
Affected crops	p.pea	p.pea	p.pea	p.pea	maize	p.pea	p.pea	p.pea	maize	tomato	tomato
Dimba cultivation (sq.m)	150	200	100	0	0	100	250	200	130	150	500
Dimba crops	chi.rap	tomato	chi.rap	-	-	tomato	chi.rap	tomato	chi.rap	chi.rap	tomato
Ann. quantitv sold cash cr. kg	350	400	0	0	0	100	400	500	1,000	500	1,800
Number of heads Cows	0	0	20	0	0	0	0	0	0	0	0
Pigs:	0	0	0	0	0	0	0	0	0	0	0
Goats:	0	0	0	1	5	0	3	3	0	0	1
Chicken / Ducks	12	7	10	3	0	0	17	53	4	16	4
Turkeys:	0	0	0	0	0	0	3	0	0	0	0
Doves:	0	0	0	4	0	0	0	4	0	0	0
Rabbits / G.fowls	0	0	0	0	0	0	0	0	0	rabb6	0
Livestock sold: cow / goats	0	0	slter5	goat1	goat2	0	goat3	goat2	0	rabb5	0
pigs	0	0	0	0	0	0	0	0	0	0	0
chicken	0	0	0	0	0	0	0	20	15	0	0
Accident / theft	once.g	theft	theft	0	theft	died	died	0	theft	0	0
diseases	new.c.	0	new.c.	0	new.c.	new.c.	new.c.	vaccine	new.c.	new.c.	0
Food Balance self-supplied	70%	10%	100%	65%	70%	60%	60%	55%	100%	85%	95%
Food Purchased (kg/vr)	400	600	0	300	250	750	300	250	0	500	600
Period of food shortage (mth)	4	10	0	4	4	3	5	5.5	0	2	1
Number of meal / dav	3	3	3	2	3	1	3	2	3	3	3
Annual Income from crop	2,100	2,500	0	1,800	600	700	2,200	2,500	1,800	4,500	30,000
Ganvu(-for employing)	600	500	0	0	-200	0	0	500	0	0	200
Livestock sale	0	0	30,000	600	700	0	1,800	2,600	2,250	375	0
Vocation / IGAs	0	0	1,000	500	1,000	0	0	0	0	0	14,000
Estimated total income	2,700	3,000	31,000	2,900	2,100	700	4,000	5,600	4,050	4,900	44,200
Starter pack availability	0	0	0	750	750	750	0	0	750	750	750
vocational expertise	0	0	0	0	0	0	0	0	0	0	carpento
Annual Expenditure, inputs	900	1,000	2,500	300	0	0	1,500	2,900	400	1,250	1,000
Food Purchase:	2,000	2,500	3,000	1,500	600	700	1,500	1,250	0	500	3,000
House Repair/Furniture	0	0	2,000	1,000	500	0	500	500	300	400	2,000
Borehole Maintenance fee	0	0	60	0	0	0	0	0	0	0	60
Maize milling fee	140	25	510	150	200	100	140	100	100	120	0
Transport, school	0	0	0	0	0	0	1,650	0	0	0	0
Clinic, Medicine:	0	0	500	0	0	0	0	0	0	500	0
Ceremonies:	500	200	600	0	600	200	150	500	2,000	300	2,000
Cloth, utensils, others	0	60	100	100	100	200	0	200	200	200	200
Estimated total expenditure	3,540	3,785	9,270	3,050	2,000	1,200	5,440	5,450	3,000	3,270	8,260
farm credit borrowed	0	0	0	1	0	0	0	0	0	0	0
financing agency	-	-	-	MRFC	-	-	-	-	-	-	-
Current desire: food reserve	2	1				2		3		4	
More labor force	3					1	2		4		
Livestock breed								1	3	1	
Cultivating Dimba, IGAs					2				5		
More land to cultivate											
Promising income sources							1				
Buv bicycle				2			3	2			
More farm inputs	4				1		5	4	1		
Access to maize-mill				1		3		5	2	3	
More extension service	1	3	1			4				2	
Borrow funds for business		2					4			5	
Group activities			2								1
Borehole Drilling			3	3							
Clinic Construction											
Reforestation for firewood					3	5				6	

Table D - 2 Farm Economy Survey Data 2

Data Number	12	13	14	15	16	17	18	19	20	21	22
Survey Date : Aug.2000	22	23	23	23	23	24	24	24	24	24	25
Name of Village	Kamwendo	Nanjiwa	Nanjiwa	Maluwa	S.Mpombe	Salimu	Masangano	Kateya	Tavekenji	Michongwe	Chimseu
Name of Farmer	W.Laabe	Manyungwa	L.Jerard	Kalis Black	Raaf Ben	Edis James	D.Maliro	J.Chimpeni	Erick Liyo	Roda Acleo	Anne Salijen
Number of family member	8	9	5	5	4	5	2	3	1	3	2
Number of farm labor	3	4	2	2	2	2	2	2	1	1	1
Other income activities	dimba	0	dimba	dimba	0	dimba	0	dimba	0	0	dimba
Number of hats	3	4	3	1	1	2	2	1	1	1	1
Number of farm parcels	3	4	2	2	1	1	1	1	1	3	1
Measured farmland area *	1.344	1.008	1.386	0.17	0.63	0.74	1.8	0.54	0.09	0.48	0.38
Sown area this year Maize	90	90	90	100	100	80	95	90	100	80	90
Groundnut%	10	5	0	0	10	10	5	0	30	0	10
Sorghum %	0	5	10	0	0	20	0	10	0	0	5
Cassava %	0	5	10	0	0	0	0	0	0	20	0
Pigeon Pea %	20	10	20	0	0	20	0	15	0	20	15
Sweet potato/bean %	0	papli5	0	0	0	0	0	0	0	0	0
Harvest 2000 Maize(bag)	36	25	10	5	6	10	7	9	1	2	3
Groundnut (bag)	1.5	1	0	0	1	0.5	0	0	0	0	1
Sorghum (bag)	0	0	3	0	0	0.5	0.5	0.5	0	0	0
Cassava (kg)	0	200	150	0	0	0	0	0	0	0	0
Pigeon Pea (bag)	0.5	1	0.4	0	0	0.5	0	2	0.5	0	0
Sweet potato(kg)	0	0	0	0	0	0	0	0	0	0	0
Quantity sold Maize/MK	0	3	0	0	0	2	0	0	0	0	0
Groundnut (MK 12 / kg)	0	0	0	0	0	0	0	0	0	0	0
Sorghum (MK7 / kg)	0	0	0	0	0	0	0	0	0	0	0
Cassava (kg) / (MK 3 / kg)	0	100	100	0	0	0	0	0	0	0	0
Pigeon Pea (MK 12 / kg)	0	0	0	0	0	0	0	1	0	0	0
Sweet potato (MK 5 / kg)	0	0	0	0	0	0	0	0	0	0	0
Quantity seed sown Maize	50	40	10	8	15	7	40	15	2	5	30
G'nut / Pigeon pea (kg)	0.4	0.3	0.3	0	0.2	0.5	0	0.5	0.3	0.4	0.3
Quantity of CAN, DAP, green manure/dung /residue	CAN3 res 2	C&U2 g.dung	Ur 0.2 g.dung	CN0.5 g.dung	Ur 0.4 g.dung	Cm0.5 res 2	0 g.dung	CAN1 Cm0.2	Stp1 0	0 g.dung	CN0.1 g.dung
Applied crop	upland.	upland.	both	dimba	upland	upland	upland.	both	-	-	both
Agricultural Chemicals	-	-	-	-	-	-	-	-	-	-	-
Applied crop	-	-	-	-	-	-	-	-	-	-	-
Theft, diseases and pests	theft	grasshp	blight	M.Bug	0 theft.v	s.borer	blight	0	striga	theft.v	0
Affected crops	0	p.pea	tomato	rape,mu	0	M.bug	maize	mustard	0	maize	rape
Dimba cultivation (sq.m)	150	0	200	700	0	360	0	1,540	0	0	100
Dimba crops	s.cane	0	tomato	chi.rap	-	turnip	-	rape	-	-	p.leaf
Ann. quantity sold cash cr.	300	0	450	2,000	0	1,400	0	400	0	0	100
Number of heads Cows	0	0	0	0	0	2	0	0	0	0	0
Pigs:	0	0	1	0	0	0	0	0	0	0	0
Goats:	6	2	0	2	2	0	7	0	0	0	0
Chicken / Ducks	12	15	4	0	2	0	0	21	0	2	0
Turkeys:	0	0	0	0	0	0	0	0	0	0	0
Doves:	0	0	0	0	0	0	0	0	0	0	0
Rabbits / G.fowls	0	0	0	0	0	0	0	0	0	0	0
Livestock sold: cow / goats	goat2	0	0	0	0	0	0	0	0	0	0
pigs	0	0	1	0	0	0	0	0	0	0	0
chicken	0	0	0	0	0	0	0	4	0	0	0
Accident / theft	theft	died	0	0	0	0	theft	theft	0	0	0
diseases	new.c.	new.c.	0	0	new.c.	new.c.	0	new.c.	0	new.c.	0
Food Balance self-supplied	100%	85%	67%	65%	100%	75%	85%	67%	10%	45%	50%
Food Purchased (kg/vr)	0	100	200	200	0	150	100	600	150	350	25
Period of food shortage	0	2	4.5	5.5	5	3	2	4	10	7	6
Number of meal / dav	3	3	3	3	2	3	3	3	3	3	2
Annual Income from crop	4,000	1,225	300	5,000	0	4,800	0	3,600	0	0	500
Ganvu(-for employing)	-2,000	0	-90	400	0	200	-400	0	0	400	320
Livestock sale	2,000	0	7,000	0	0	0	0	600	0	0	0
Vocation / IGAs	2,500	3,500	0	0	600	0	1,800	0	7,525	1,200	0
Estimated total income	6,500	4,725	7,210	5,400	600	5,000	1,400	4,200	7,525	1,600	820
Starter pack availability	750	750	0	750	750	750	0	0	0	750	500
vocational expertise	doctor	bsmith	0	0	brickm	0	pension	0	employee	V.H.W.	0
Annual Expenditure, inputs	2,600	2,000	700	440	0	450	100	1,600	50	0	120
Food Purchase:	0	500	1,000	1,000	0	750	500	1,500	1,500	1,750	125
House Repair/Furniture	0	0	450	0	0	0	0	0	2,500	0	0
Borehole Maintenance fee	120	0	0	20	0	0	0	0	10	0	0
Maize milling fee	0	150	500	100	120	190	150	200	50	100	120
Transport, school	0	0	200	0	0	0	0	0	1,500	0	0
Clinic, Medicine:	0	0	0	3,000	0	950	0	500	0	0	150
Ceremonies:	200	500	300	100	400	1,500	250	50	30	30	30
Cloth, utensils, others	300	130	100	65	70	500	400	300	1,500	0	250
Estimated total expenditure	3,220	3,280	3,250	4,725	590	4,340	1,400	4,150	7,140	1,880	795
farm credit borrowed	0	0	0	0	0	0	0	0	0	0	0
financing agency	-	-	-	-	-	-	-	-	-	-	-
Current desire: food reserve		4						3	1		
More labor force		1		2							
Livestock breed	1		2								
Cultivating Dimba, IGAs		5									
More land to cultivate		2								4	
Promising income sources		3									
Buv bicycle											
More farm inputs			1		2	2				3	
Access to maize-mill					1	1	2		2		1
More extension service			3				3	2	3		
Borrow funds for business		6		1							
Group activities											
Borehole Drilling							1			1	
Clinic Construction								1		2	2
Reforestation for firewood											3

Table D - 3 Farm Economy Survey Data 3

Data Number	23	24	25	26	27	28	29	30	31	32
Survey Date : Aug.2000	25	25	25	26	26	26	26	26	27	27
Name of Village	Kaunbata	Kaunbata	Syandima	Kumanda	Magombo	Gomezia	Mdala	Mdala	Kantumbidza	Kantumbidza
Name of Farmer	A.Kabango	B.Tumbani	S.Mbwe	M.Choucha	P.Magombo	Roda Vince	Raison Ken	Fredison Bi	Estery Chin	Chikaoneka
Number of family member	5	8	5	6	1	8	2	2	4	3
Number of farm labor	2	3	5	4	1	4	2	1	3	2
Other income activities	dimba	dimba	0	0	0	dimba	dimba	dimba	0	dimba
Number of hats	2	3	3	1	1	1	2	1	4	4
Number of farm parcels	2	3	2	1	2	2	2	2	2	2
Measured farmland area*	0.43	0.29	0.89	0.04	0.43	0.56	0.55	2.55	0.43	0.46
Sown area this year Maize %	85	90	90	100	90	85	90	100	95	90
Groundnut %	0	0	10	0	0	10	5	10	0	0
Sorghum %	15	10	0	0	10	15	10	0	5	10
Cassava %	0	0	10	0	0	0	0	0	0	0
Pigeon Pea %	15	10	20	20	15	15	10	15	20	15
Sweet potato/bean %	0	kobwe5	kobwe5	0	0	0	0	0	0	0
Harvest 2000 Maize (bag)	5	10	25	1	3	7	7	40	6	4
Groundnut (bag)	0	0	5	0	0	1	2	18	0	0
Sorghum (bag)	0.5	0.5	0	0	1	8	1	0	1	1
Cassava (ke)	0	0	500	0	0	0	0	0	0	0
Pigeon Pea (bag)	2	2	1	1	1.5	3	0.5	10	0.5	0.5
Sweet potato (ke)	0	(1)	(1)	0	0	0	0	0	0	0
Quantity sold Maize/MK	0	0	0	0	0	0	0	0	0	0
Groundnut (MK 12 / ke)	0	0	0	0	0	0	0	7	0	0
Sorghum (MK7 / ke)	0	0	0	0	0	0	0	0	0	0
Cassava (ke) / MK 3 / ke	0	0	0	0	0	0	0	0	0	0
Pigeon Pea (MK 12 / ke)	0	1	0	0	0	0	0	6	0	0
Sweet potato (MK 5 / ke)	0	0	0	0	0	0	0	0	0	0
Quantity seed sown Maize	10	25	25	10	25	15	10	60	25	25
G'nut / Pigeon pea (ke)	0.4	0.5	0.7	0.3	0.4	15	10	25	0.5	0.3
Quantity of CAN, DAP	CN0.1	CN0.1	0	Sttr1	0	CN0.2	CN0.1	CN0.5	Cm0.5	CN0.1
green manure/dung /residue	o.dung	o.dung	c.dung	0	0	g.dung	0	res 2	g.dung	c.dung
Applied crop	both	dimba	upland.	-	-	dimba	dimba	both	upland.	both
Agricultural Chemicals	-	-	-	-	-	-	-	-	-	-
Applied crop	-	-	-	-	-	-	-	-	-	-
Theft, diseases and pests	locust	locust	0	locust	locust	locust	locust	aphid	Mbug	locust
Affected crops	n.leaf	n.leaf	-	maize	maize	maize	p.leaf	tomato	p.pea	tomato
Dimba cultivation (sq.m)	126	272	0	0	0	0	600	500	0	200
Dimba crops	n.leaf	n.leaf	-	-	-	chi.rap	tomato	p.leaf	-	rape
Ann. quantity sold cash cr. ke	150	300	0	0	0	400	50	100	0	50
Number of heads Cows	0	0	8	0	0	0	0	0	0	0
Pigs:	0	0	6	0	0	0	0	0	0	0
Goats:	18	0	8	0	0	2	0	0	5	0
Chicken / Ducks	10	25	12	0	0	11	0	0	12	0
Turkeys:	0	0	0	0	0	0	0	0	0	0
Doves:	20	0	10	0	0	0	0	0	0	0
Rabbits / G.fowls	0	0	rabb3	0	0	0	0	0	0	0
Livestock sold: cow / goats	coat4	0	0	0	0	1	0	0	goat3	0
pigs	0	0	2	0	0	0	0	0	0	0
chicken	0	4	0	0	0	3	0	0	6	0
Accident / theft	theft	0	0	0	0	0	0	0	0	0
diseases	new.c	new.c	new.c.	0	0	new.c.	0	new.c.	0	0
Food Balance self-supplied	0.67	0.6	100%	25%	60%	40%	50%	75%	75%	67%
Food Purchased (ke/vr)	300	500	0	900	50	400	200	150	200	500
Period of food shortage (mth)	4	5	0	9	5	7	6	3	4	5
Number of meal / day	3	2	3	1	2	3	3	3	3	3
Annual Income from crop	1000	2000	100	0	550	2,000	300	7,800	60	150
Ganvu(-for employing)	0	0	-800	150	100	80	600	-750	600	3,000
Livestock sale	2600	280	7,000	0	0	450	0	0	1,410	0
Vocation / IGAs	200	0	0	1,000	0	3,600	0	0	0	0
Estimated total income	3800	2280	6,300	1,150	650	6,130	900	7,050	2,070	3,150
Starter pack availability	750	750	0	500	750	0	750	0	750	750
vocational expenditure	fwood	0	carptor	0	0	employee	0	tinsmith	0	tinsmi
Annual Expenditure, inputs	450	225	150	0	125	205	50	515	0	150
Food Purchase:	1800	2250	0	3,060	250	1,500	800	750	760	1,900
House Repair/Furniture	1200	0	0	200	0	1,000	0	1,500	500	80
Borehole Maintenance fee	0	0	0	0	0	0	0	0	120	0
Maize milling fee	0	0	150	0	0	3,000	0	0	1,020	360
Transport, school	0	0	0	0	0	0	0	0	0	0
Clinic, Medicine:	0	0	0	0	0	0	0	0	0	0
Ceremonies:	0	0	1,000	50	100	200	0	1,000	300	350
Cloth, utensils, others	500	50	1,500	100	200	200	60	160	150	260
Estimated total expenditure	3950	2525	2,800	3,410	675	6,105	910	3,925	2,850	3,100
farm credit borrowed	0	0	0	0	0	0	0	0	0	0
financing agency	-	-	-	-	-	-	-	-	-	-
Current desire: food reserve						5				
More labor force										
Livestock breed										
Cultivating Dimba, IGAs										
More land to cultivate										
Promising income sources				2						
Buy bicycle			4		4			4		
More farm inputs				1			1		1	
Access to maize-mill		1	1			1	5	3		3
More extension service										
Borrow funds for business	1					3		1		4
Group activities										
Borehole Drilling		2	3	3	1	2	2	2	3	
Clinic Construction				4	2		3		2	1
Reforestation for firewood	3	3	2		3	4	4		4	2

Table D – 4 Correlation among factors measured in Farm Economic Survey

sample No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
farmland	0.5	0.4	3.6	0.75	0.85	0.6	1.2	1.06	0.31	0.23	1.1	1.344	1.008	1.386	0.17	0.63		
Food Balance	70%	10%	100%	65%	70%	60%	60%	55%	100%	85%	95%	100%	85%	67%	65%	100%		
farmland	0.5	0.4	3.6	0.75	0.85	0.6	1.2	1.06	0.31	0.23	1.1	1.344	1.008	1.386	0.17	0.63		
Food bought	400	600	0	300	250	750	300	250	0	500	600	0	100	200	200	0		
farmland	0.5	0.4	3.6	0.75	0.85	0.6	1.2	1.06	0.31	0.23	1.1	1.344	1.008	1.386	0.17	0.63		
shortage mth	4	10	0	4	4	3	5	5.5	0	2	1	0	2	4.5	5.5	5		
farmland	0.5	0.4	3.6	0.75	0.85	0.6	1.2	1.06	0.31	0.23	1.1	1.344	1.008	1.386	0.17	0.63		
crop income	2,100	2,500	0	1,800	600	700	2,200	2,500	1,800	4,500	30,000	4,000	1,225	300	5,000	0		
farmland	0.5	0.4	3.6	0.75	0.85	0.6	1.2	1.06	0.31	0.23	1.1	1.344	1.008	1.386	0.17	0.63		
total income	2,700	3,000	31,000	2,900	2,100	700	4,000	5,600	4,050	4,900	44,200	6,500	4,725	7,210	5,400	600		
farmland	0.5	0.4	3.6	0.75	0.85	0.6	1.2	1.06	0.31	0.23	1.1	1.344	1.008	1.386	0.17	0.63		
Livestock sale	0	0	30,000	600	700	0	1,800	2,600	2,250	375	0	2,000	0	7,000	0	0		
Dimba area	150	200	100	0	0	100	250	200	130	150	500	150	0	200	700	0		
crop Income	2,100	2,500	0	1,800	600	700	2,200	2,500	1,800	4,500	30,000	4,000	1,225	300	5,000	0		
Dimba area	150	200	100	0	0	100	250	200	130	150	500	150	0	200	700	0		
dimba income	2,100	2,500	0	0	100	700	800	1,900	1,800	3,900	30,000	4,000	250	0	5,000	0		
Dimba area	150	200	100	0	0	100	250	200	130	150	500	150	0	200	700	0		
total income	2,700	3,000	31,000	2,900	2,100	700	4,000	5,600	4,050	4,900	44,200	6,500	4,725	7,210	5,400	600		
dimba income	2,100	2,500	0	0	100	700	800	1,900	1,800	3,900	30,000	4,000	250	0	5,000	0		
total income	2,700	3,000	31,000	2,900	2,100	700	4,000	5,600	4,050	4,900	44,200	6,500	4,725	7,210	5,400	600		
farmland	0.5	0.4	3.6	0.75	0.85	0.6	1.2	1.06	0.31	0.23	1.1	1.344	1.008	1.386	0.17	0.63		
familymember	5	5	8	5	7	8	10	4	8	4	4	8	9	5	5	4		
land/person	0.1	0.08	0.45	0.15	0.121	0.075	0.12	0.265	0.039	0.058	0.275	0.168	0.112	0.277	0.034	0.158		
Food bought	400	600	0	300	250	750	300	250	0	500	600	0	100	200	200	0		
land/person	0.1	0.08	0.45	0.15	0.121	0.075	0.12	0.265	0.039	0.058	0.275	0.168	0.112	0.277	0.034	0.158		
self-supplied	70%	10%	100%	65%	70%	60%	60%	55%	100%	85%	95%	100%	85%	67%	65%	100%		
familymember	5	5	8	5	7	8	10	4	8	4	4	8	9	5	5	4		
ttl. expense	7,911	9,111	62,022	6,112	4,566	2,867	9,122	13,360	9,917	14,209	119,011	17,019	9,820	14,633	16,011	1,210		
sample No.	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	correla- tion	
farmland	0.74	1.8	0.54	0.09	0.48	0.38	0.43	0.29	0.89	0.04	0.43	0.56	0.55	2.55	0.43	0.46		0.450
Food Balance	0.75	0.85	0.67	0.1	0.45	0.5	0.67	0.6	1	0.25	0.6	0.4	0.5	0.75	0.75	0.67		
farmland	0.74	1.8	0.54	0.09	0.48	0.38	0.43	0.29	0.89	0.04	0.43	0.56	0.55	2.55	0.43	0.46		-0.366
Food bought	150	100	600	150	350	25	300	500	0	900	50	400	200	150	200	500		
farmland	0.74	1.8	0.54	0.09	0.48	0.38	0.43	0.29	0.89	0.04	0.43	0.56	0.55	2.55	0.43	0.46		-0.502
shortage mth	3	2	4	10	7	6	4	5	0	9	5	7	6	3	4	5		
farmland	0.74	1.8	0.54	0.09	0.48	0.38	0.43	0.29	0.89	0.04	0.43	0.56	0.55	2.55	0.43	0.46		0.117
crop income	4800	0	3600	0	0	500	1000	2000	100	0	550	2000	300	7800	60	150		
farmland	0.74	1.8	0.54	0.09	0.48	0.38	0.43	0.29	0.89	0.04	0.43	0.56	0.55	2.55	0.43	0.46		0.502
total income	5000	1400	4200	7525	1600	820	3800	2280	6300	1150	650	6130	900	7050	2070	3150		
farmland	0.74	1.8	0.54	0.09	0.48	0.38	0.43	0.29	0.89	0.04	0.43	0.56	0.55	2.55	0.43	0.46	0.712	
Livestock sale	0	0	600	0	0	0	2600	280	7000	0	0	450	0	0	1410	0		
Dimba area	360	0	1540	0	0	100	126	272	0	0	0	0	600	500	0	200	0.339	
crop Income	4800	0	3600	0	0	500	1000	2000	100	0	550	2000	300	7800	60	150		
Dimba area	360	0	1540	0	0	100	126	272	0	0	0	0	600	500	0	200	0.291	
dimba income	4350	0	3000	0	0	500	1000	1400	100	0	550	2000	300	0	60	150		
Dimba area	360	0	1540	0	0	100	126	272	0	0	0	0	600	500	0	200	0.149	
total income	5000	1400	4200	7525	1600	820	3800	2280	6300	1150	650	6130	900	7050	2070	3150		
dimba income	4350	0	3000	0	0	500	1000	1400	100	0	550	2000	300	0	60	150	0.767	
total income	5000	1400	4200	7525	1600	820	3800	2280	6300	1150	650	6130	900	7050	2070	3150		
farmland	0.74	1.8	0.54	0.09	0.48	0.38	0.43	0.29	0.89	0.04	0.43	0.56	0.55	2.55	0.43	0.46		
familymember	5	2	3	1	3	2	5	8	5	6	1	8	2	2	4	3		
land/person	0.148	0.9	0.18	0.09	0.16	0.19	0.086	0.036	0.178	0.007	0.43	0.07	0.275	1.275	0.108	0.153	-0.308	
Food bought	150	100	600	150	350	25	300	500	0	900	50	400	200	150	200	500		
land/person	0.148	0.9	0.18	0.09	0.16	0.19	0.086	0.036	0.178	0.007	0.43	0.07	0.275	1.275	0.108	0.153	0.222	
self-supplied	0.75	0.85	0.67	0.1	0.45	0.5	0.67	0.6	1	0.25	0.6	0.4	0.5	0.75	0.75	0.67		
familymember	5	2	3	1	3	2	5	8	5	6	1	8	2	2	4	3	0.029	
ttl. expense	2908	12008	15202	3557	2170	8911	6477	12712	3212	1904	14677	2306	14260	4409	6957	0		

source: studied by the Study Team

Table D – 5 Crop Composition and Farming Practices

Village	Makanani	Makanani	Teula	Chicoja	Makonoka	Kanata	Ndemanje	Ndemanje	Kumponda	PeterBilia	Lemu	Kamwendo	Nanjiwa	Nanjiwa	Maluwa	S.Mpombe
Name of the surveyed farm	Edina	Anderson	Banda	Kodine	Edwar	Maliya	C.Yusuf	Kabotolo	Amiru Jef	Ngondzo	Kuseli	W.Laabe	Manyungu	L.Jerard	Kalis Blac	Raaf Ben
Measured farmland area *	0.5	0.4	3.6	0.75	0.85	0.6	1.2	1.06	0.31	0.23	1.1	1.344	1.008	1.386	0.17	0.63
Sown area this year Maize %	70	80	80	70	80	90	85	80	90	95	90	90	90	90	100	100
Groundnut%	0	0	20	0	0	0	5	10	10	0	5	10	5	0	0	10
Sorghum %	10	20	10	20	0	10	5	5	0	0	5	0	5	10	0	0
Cassava %	10	0	0	10	0	0	10	0	0	5	10	0	5	10	0	0
Pigeon Pea %	20	20	10	30	30	10	20	25	10	25	2	20	10	20	0	0
Quantity seed sown Maize (kg)	10	1	75	10	3	5	40	35	8	20	20	50	40	10	8	15
G'nut / Pigeon pea (kg)	1	0.2	20	1	1	0.5	0.5	0.5	5	0.3	0.5	0.4	50	0.3	0	0.2
crop composition type	pp	pp	pp	pp	pp	pp	pp	pp	gp	pp	gp	gp	gp	pp	pp	gp
pp seed rate kg/ha	40.0	10.0	111.1	40.0	35.3	8.3				32.6				4.3		
gn seed rate kg/ha													248.0			
Dimba area (square meter)	150	200	100	0	0	100	250	200	130	150	500	150	0	200	700	0
Quantity of CAN, DAP,	CAN1	CAN1	C.Ur2	Sstp 1	Sstp 1	res 1	CAN2	DP3.5	DAP2	CAN1	CAN1	CAN3	C.Ur2	Ur 0.2	CN0.5	Ur 0.4
green manure/dung /residue	0	0	res 2	res 2	res 1	res 1	res 1	res 1	c.dung	0	g.dung	res 2	g.dung	g.dung	g.dung	g.dung
Applied crop	dimba	dimba	both	upland.	upland.	upland.	upland.	upland.	both	dimba	dimba	upland.	upland.	both	dimba	upland

Village	Salimu	Masangan	Kateya	Tavekenji	Michongvi	Chimseu	Kaumbata	Kaumbata	Syandima	Kumanda	Magombol	Gomeza	Mdala	Mdala	Kantumbidz	Kantumbidza
Name of the surveyed farm	Edis Jame	D.Mairo	J.Chimpei	Erick Liye	Roda Aek	Anne Sali	A.Kabang	B.Tumbai	S.Mbewe	M.Chouel	P.Magom	Roda Vini	Raison Ke	Fredison B	Estery Chi	hikaoneka
Measured farmland area *	0.74	1.8	0.54	0.09	0.48	0.38	0.43	0.29	0.89	0.04	0.43	0.56	0.55	2.55	0.43	0.46
Sown area this year Maize %	80	95	90	100	80	90	85	90	90	100	90	85	90	100	95	90
Groundnut%	10	5	0	30	0	10	0	0	10	0	0	10	5	10	0	0
Sorghum %	20	0	10	0	0	5	15	10	0	0	10	15	10	0	5	10
Cassava %	0	0	0	0	20	0	0	0	10	0	0	0	0	0	0	0
Pigeon Pea %	20	0	15	0	20	15	15	10	20	20	15	15	10	15	20	15
Quantity seed sown Maize (kg)	7	40	15	2	5	30	10	25	25	10	25	15	10	60	25	25
G'nut / Pigeon pea (kg)	0.5	0	0.5	0.3	0.4	0.3	0.4	0.5	0.7	0.3	0.4	3	10	25	0.5	0.3
crop composition type	gp	gp	pp	g	pp	pp	pp	pp	gp	pp	pp	gp	gp	gp	pp	pp
pp seed rate kg/ha			13.9	100.0	16.7		14.0	17.2		15.0	14.0	53.6	90.9	98.0	23.3	9.8
gn seed rate kg/ha																
Dimba area (square meter)	360	0	1,540	0	0	100	126	272	0	0	0	0	600	500	0	200
Quantity of CAN, DAP,	Cm0.5	0	CAN1	Sstp1	0	CN0.1	CN0.1	CN0.1	0	Sstp1	0	CN0.2	CN0.1	CN0.5	Cm0.5	CN0.1
green manure/dung /residue	res 2	g.dung	Cm0.2	0	0	g.dung	g.dung	g.dung	c.dung	0	0	g.dung	0	res 2	g.dung	c.dung
Applied crop	upland	upland.	both	-	-	both	both	dimba	upland.	-	-	dimba	dimba	both	upland.	both