

**REPUBLIC OF MALAWI
MINISTRY OF AGRICULTURE, IRRIGATION
AND WATER DEVELOPMENT (MoAIWD)**

**PROJECT FOR NATIONAL WATER
RESOURCES MASTER PLAN
IN THE REPUBLIC OF MALAWI**

FINAL REPORT

Volume III: Data Book

DECEMBER 2014

**JAPAN INTERNATIONAL COOPERATION AGENCY
(JICA)**

**CTI ENGINEERING INTERNATIONAL CO., LTD
ORIENTAL CONSULTANTS CO., LTD.
NEWJEC Inc.**

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COMPOSITION OF FINAL REPORT

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Volume II : Main Report

Volume III : Data Book

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CHAPTER 1. REGION WATER BOARD FACILITIES

Location		Type of Water Source			1 Intake Weir; 2 Intake tower; 3 Intake conduit		Pump Capacity m ³ /day	Intake Discharge (Borehole)		Intake Pump Performance Characteristics				Physical Characteristics (Borehole)			In Case of River Source (Intake Discharges)		Water Quality Problems			(Please attach a list if more than one facility)	Collection Basin		Chemical Injection for coagulation					
		Dam, River, lake, stream	5 Borehole; 6 Shallow well; 7 Spring	No. of facilities	Type	No. Of Facilities (no)		Rainy Season m ³ /day	Dry Season m ³ /day	Number of Pump	Output (KW)	Total Discharge (m ³ /day)	Type of pump	1 Depth (m)	2 Dia. Of casing (mm)	3 length of Screen (m)	Wet Season (m ³ /day)	Dry Season (m ³ /day)	1. Taste; 2. turbidity	3. Fluoride; 4. Iron, Manganise	5. Others	Daily Production (m ³)	Size (*m x *m x *m)	Capacity per day (m ³ /day)	Items of input	Device	Injection Pump (Watts)			
North	Chitipa	CHITIPA Boma		Borehole	10		605	418	360					submersible	50	160	40						600							
	Karonga	KARONGA Boma	LAKE Malawi		1	Intake conduit	1	1224			2	33	1120	centrifugal				7200	7200				7200	2	1500	BUFFLES				
		CHILUMBA	LAKE Malawi		2	Intake conduit	2	7200						centrifugal				1195.2	1195.2				1200							
	Nkhata Bay	NKHATABAY	LAKE Malawi		2	Intake conduit	2	1944			2	30	1320	centrifugal				1944	1944				1950						19	
		CHINTHECHE	LAKE Malawi		2	Intake conduit	2	850			2	30	600	centrifugal				850	849.6				800						19	
	Rumphi	RUMPHI	Rumphi River		1	intake weir	1	1296										1296	1008				1300			Algae Floc	mateering pump			
	Mzimba	MZIMBA	Mzimba River		1	intake weir	1	1512				31	1120					1512	1224				1500			buffles	manual			
Mzuzu City	MZUZU	Lunyangwa Dam		1	intake tower	1	13680															13660				mateering pump		37		
Central	Kasungu	KASUNGU	Chitete Dam		1	Intake tower	1	504	432	432										2. Turbidity		450	1.768	3300	ALGAEFL OC	Dosing Pump		90		
	Nkhotakota	NKHO TAKOTA		Borehole	4		1584	1224	936					submersible	45	160	40				1. Taste		1432			1.5	Dosing Pump			
		DWANGWA		Borehole	2		504	374	288	2	75	280		submersible	60	110	40				Manganise		374							
	Ntchisi	NTCHISI		Borehole	3		1008	806	576						60	160	45				2. Turbidity		857							
		Dowa	DOWA	Lingadzi River	Borehole	2	Intake weir	1	900	806	576	3	22	600	bremer/centrifugal/submersible	60	150	45	550	500		4. Iron manganise		798						
		MPONELA		Borehole	7		900	706	576					submersible									693							
		MADISI		Borehole	5		504	403	288					submersible	45	110	40				4. Iron manganise		350							
	Salima	SALIMA		Borehole	4		821	403	288	4			320	submersible	50	150	40						2395				Dosing Pump			
		SENGA-BAY		Swallow well	1		1116			1	21	320		MONO PUMP 250				504	360				140							
		CHIPOKA	LAKE Malawi		2	INTAKE CONDUIT	1	576			2	49	400	KBS-PUMP				533	504				645							
		PARACHUTIE BATTALION		BOREHOLE	3		605	403	158.4	3	3.8	360		submersible, Franklin, CRL	42	150	40						394						40	
		MAFCO	LAKE Malawi		1	Intake conduit	1	302						centrifugal				1800	1800				1800							
	Lilongwe Rural	LIKUNI		Borehole	2		302	288	201.6					submersible									330							
		BUNDA	Dam		1																									
	Mchinji	MCHINJI	Cnimwankhuku and Ntenjemanga Stream	Shallow well	3	Intake weir	2	1109			1	15	120	multi stage (m&b pump)				1110	1000				960				Dosing Pump		25	
Dedza	DEDZA		Borehole	6		900	900	720	7	75	816		submersible, Franklin, CRL	60	160	40						854								
	BEMBEKE	River		1	Intake weir	1	65			2	75	216	FRANKLIN, GROUNDFA CES				63	57				57								
	DEDZA SECONDARY SCHOOL	Chitowa stream		1	Intake weir	1	806						FRANKLIN, GROUNDFA CES				176	160				160								
Ntcheu	NTCHEU	river, stream	BOREHOLE	5	Intake weir	2	1555	1498	1008	3	14	1200	centrifugal and submersible	45	160	40	1556	1500				1685								
	KOCHILIRA	Collector well		2	Intake weir	2																362								
South	Mangochi	MANGOCHI	LAKE Malawi		1	Intake weir	1	2808					centrifugal				2362	2160				2359								
		MONKEYBAY	Lake Malawi		1	intake conduit	1	1800			2	15	1450	centrifugal				1498	1497.6				1487							
	Machinga	LIWONDE	Shire River		1	Intake tower	1	1872			2	7.9	1309	centrifugal				1882	1531				1531			buckets	steering stack			
		NAMADZI Trading Center	spring		2	intake weir	1	173			2	18	480	centrifugal				169	142				142							
		NAMWERA		Borehole	6		158	158	108	4	14	450		submersible pump	70	160	45						157							
Zomba City	ZOMBA	Mulunguzi dam, river, stream		6	intake weir	2	18000			4	18	17280	submersible for borehole & Centrifugal	40	160	15	18200	15154				15154				Sulphat Aluminium Algae Floc				

CHAPTER 1. REGION WATER BOARD FACILITIES

Location	Frocculation			Sedimentation			Filter			Water Tank			Chlorine disinfection		Distribution		Water meter	
	Type	Size (*m x *m x *m)	Capacity per day (m ³ /day)	Type	Size (*m x *m x *m)	Capacity per day (m ³ /day)	Type	Size (*m x *m x *m)	Capacity per day (m ³ /day)	Number	Size (*m x *m x *m)	Capacity per day (m ³)	1 Type of Chlorine	2. Daily Consumption (Kg)	Pipes diameter (mm)	Length (m)	Number of households	
North	Chitipa	CHITIPA Boma								2	600	600	HTH	0.6			1841	
	Karonga	KARONGA Boma			horizontal type		pressure filters	=1.8*1.6	1660	2	=17.5*17.5 *4	7200	granular	8	160	4,500	3124	
		CHILUMBA								2		1200	HTH	1.4	160	6,000	8	
	Nkhata Bay	NKHATABAY										1800	2		1950	HTH	5	1304
		CHINTHECHE								1		800	HTH	1.2			815	
	Rumphi	RUMPHI			horizontal type		1500	pressure filters		2		1300	HTH granular type	3.3	100-110	7,000	2015	
	Mzimba	MZIMBA						pressure filters		2	=17.5*17.5 *4	1500	granual 70%	8				
Mzuzu City	MZUZU			horizontal type	=9*4*3	18000	pressure filters	=9*6.3*4*3	23		12953	HTH granular type	58	63-400		15284		
Central	Kasungu	KASUNGU	hopper	=6.4*6.4* 5.3	3300		Rapid Sand Filters	=3*3.3*0.7	330	1	1290	450	HTH chroline	15		22,800	4114	
	Nkhotakota	NKHO TAKO TA							1200	2	800	1432	HTH	1.5	110		5	
		DWANGWA								1	450	374	granular	1.75	160, 110, 90, 36, 32	18,845	688	
	Ntchisi	NTCHISI				280	Slow San Filter		341	3	796	857	HTH	1	200, 160, 150, 110, 90, 75, 63, 50, 40, 32		1061	
	Dowa	DO WA								2	447	798						
		MPO NELA								3	228	693						
	Salima	MADISI								3	333	350	HTH	1	110, 90, 75, 63		472	
		SALIMA								3	1172	2395	DRY CHROLOLINE GRANURAL	5	250		2500	
		SENGA-BAY								2	75	140	DRY CHLORINE GRANULAR	2.2			270	
	Lilongwe Rural	CHIPOKA										800	643	DRY CHLORINE GRANULAR	2.3			
		PARACHUTIE BATTALLION								1	82	20	HTH	0.25	50	2,400	1	
		MAFCO								2	697	1800						
		BUNDA								2	460	330						
		Mchinji	MCHINJI							800	2	1500	960	HTH	2.5	200, 160, 110, 90	17,000	1989
	Dedza	DEDZA			cyclic	2		pressure filters	2	5	577	854	HTH	1.8	110	6,000	2075	
BEMBEKE							pressure filters	1	5	66	57	HTH	0.4	110	3,000	57		
DEDZA SECONDARY SCHOOL									1	113	160	HTH	0.2	75	1,000	66		
Ntcheu		NTCHEU							5	939	1685	HTH	2.5			1415		
Mangochi	KO CHILIRA								1	280	250							
	MANGOCHI																	
	MONKEYBAY						pressure filters		3	460	1487	HTH granular	4	32-160		1050		
	Machinga	LIWONDE			No		pressure filters		1		1531	HTH granular	4	6				
	NAMADZI Trading Center						pressure filters		360	3	=40*3*3	142	HTH	0.3	160	600	358	
Zomba City	NAMWERA							190	254			157	HTH granular	0.5	110	600	383	
	ZOMBA			flat bottom, vertical		18000	rapid gravity filter		18000	37	1200	15154	HTH granular	20.05	120, 500, 106, 8, 150, 76			

CHAPTER 1. REGION WATER BOARD FACILITIES

Location		Type of Water Source			1 Intake Weir; 2 Intake tower; 3 Intake conduit		Pump Capacity m ³ /day	Intake Discharge (Borehole)		Intake Pump Performance Characteristics			Physical Characteristics (Borehole)			In Case of River Source (Intake Discharges)		Water Quality Problems			(Please attach a list if more than one facility)	Collection Basin		Chemical Injection for coagulation			
		Dam, River, lake, stream	5 Borehole; 6 Shallow well; 7 Spring	No. of facilities	Type	No. Of Facilities (no)		Rainy Season m ³ /day	Dry Season m ³ /day	Number of Pump	Output (KW)	Total Discharge (m ³ /day)	Type of pump	1 Depth (m)	2 Dia. Of casing (mm)	3 length of Screen (m)	Wet Season (m ³ /day)	Dry Season (m ³ /day)	1. Taste; 2. turbidity	3. fluoride; 4. Iron, Manganese		5. Others	Daily Production (m ³)	Size (m x m x m)	Capacity per day (m ³ /day)	Items of input	Device
South	Zomba rural	DOMASI	Nkaya river		1	intake weir	2	1109								1099	923				923						
		CHAWE	stream	spring	2	intake weir	1	216								187	144				179			alluminium of sulphate, sod ash			
	Chiradzulu	CHIRADZULU	BWB	Borehole	2			1224	1008	720						121	101				101						
	Mwanza	MWANZA	mwanza River		1	Intake weir	3	734			3	9	centrifugal	45	110	40	619	576				616			Algae Floc	Manual	
	Thyolo	LUCHENZA	Likhubula River	Borehole	5			806	605	360	2		400	submersible			600	500				600					
		MIKOLONGWE		Borehole	1			94	43	36	1		350	submersible	40	240	40					44					
	Mulanje	MULANJE	stream		1	intake weir	2															2500					
		MULOZA Trading Center		Borehole	2			302	180	93.6				submersible	43	160	6					175					
	Phalombe	PHALOMBE	Phalombe river		1	intake weir	1	504									313	250				313					
	Chikwawa	CHIKWAWA		Borehole	3			1224	1008	648				submersible	60	160	40					1000			chroline	Dozing pump	
		NGABU Trading Center		Borehole	3			792	663	576				submersible	60	160	40					663					
		NCHALO Trading Center		Borehole	3			662	562	432				submersible	50	160	40					552			chlorine	Dozing pump	
	Nsanje	NSANJE		Borehole	3			864	720	504		5.5	600	submersible	45	160	40			1. Taste		728			chlorine	Dozing pump	
		BANGULA		Borehole	1			259	216	129.6				submersible	57	160	40					218			chlorine	Dozing pump	
	Thyolo	Thyolo Boma	Nswadzi River		1												1100	840				840			chlorine	Dozing pump	
	Machinga	Machinga Boma	stream	Borehole				600	450	380				submersible	60	160	40	1900	1822	1531		129			chlorine	Dozing pump	
Balaka	Balaka Town	Dam	Dam	1												1940	1629				1629			chlorine	Dozing pump		

Location		Frocculation			Sedimentation			Filter			Water Tank			Chlorine disinfection		Distribution		Water meter
		Type	Size (m x m x m)	Capacity per day (m ³ /day)	Type	Size (m x m x m)	Capacity per day (m ³ /day)	Type	Size (m x m x m)	Capacity per day (m ³ /day)	Number	Size (m x m x m)	Capacity per day (m ³)	1 Type of Chlorine	2. Daily Consumption (Kg)	Pipes diameter (mm)	Length (m)	Number of households
South	Zomba rural	DOMASI									1	1000	923	HTH granular	2	120, 500, 106, 8, 150, 76		3620
		CHAWE	horizontal	=67*2.7*3.4		vertical					2	=10*3*8	179	HTH granular	5	100		108
	Chiradzulu	CHIRADZULU									2	800	101	granular	1.5	76	3,000	337
	Mwanza	MWANZA				30					2		616	HTH 70%	5	110	10,000	1824
	Thyolo	LUCHENZA									2		600	HTH	4	150		1100
		MIKOLONGWE											44	HTH	2.4			
	Mulanje	MULANJE									4	=18*9*3	680	HTH	3.2		16,000	1742
		MULOZA Trading Center									4	400	175	HTH	3	200		1153
	Phalombe	PHALOMBE											313	HTH	0.5	108	108	600
	Chikwawa	CHIKWAWA									2		1000	granular	1	160	15,000	1427
		NGABU Trading Center									2		663	granularHTH	1.5	180	-	983
		NCHALO Trading Center							No		1		552	HTH	1	160	2,000	977
	Nsanje	NSANJE							No		2	472	728	HTH	1.5	160	6,000	585
		BANGULA											218	HTH	0.5	110	1,500	320
	Thyolo	Thyolo Boma											840					840
	Machinga	Machinga Boma											128					214
Balaka	Balaka Town											1629					2343	

CHAPTER 2 TANK SURVEY

Tank Code	Tank Name	WATER RESOURCE AREA (WRA)	Location		Tank											Tank							
			District/City	Village	Accessibility	Identification & Marking on topo. Map	Tank Type		GPS Coordinates of the Tank			Year of construction	Tank Height	Tank length	Tank width	Diameter (m)	Tank Volume (m ³)	Purpose	Usage	Rotation during dry season	Normal Water Level (NWL) (m)	Lowest Water Level (LWL) (m)	Difference between NWL and LWL (approx. m)
							Earth; Masonry; Concrete	Others (Specify)	Longitudes	Latitudes	Elevation							Portable water; Irrig.; Livestock; Fish culture	Effectively; Moderate; Poor; Abandoned				
RWHT/NU/09	Kuyenda School	1	Ntcheu	Kuyenda	Easily accessible	not done	Concrete		696894	8351403	843	2007	1.60			3.50	15	portable water, irrigation	abandoned		1.5	0	1.5
RWHT/NU/09	Mgoola (Nsipe EPA office)	1	Ntcheu	mgoola	Easily accessible	not done	Concrete		681197	8355327	890	1990	2.50			4.70	43	portable water	abandoned		2.2	0	2.2
RWHT/NU/07	Mary malowa	1	Ntcheu	buluzi	Easily accessible	not done	Masonry		698686	8358863	763	2007	1.70			3.90	20	portable water	abandoned		1.5	0	1.5
RWHT/NU/06	Mtambalika	1	Ntcheu	nkhwani 2	Accessible but with few	not done	Masonry		691433	8383546	606	2007	1.50			2.50	7	portable water	abandoned		1.3	0	1.3
RWHT/NU/05	Symon Mtukula	1	Ntcheu	Majiga	Accessible but with few	not done	Concrete		702855	8372751	730	1975	1.80	2.50	2.20		10	portable water	abandoned		2	0	2
RWHT/NU/04	Simon Chisale	1	Ntcheu	Mnkwani 2	Very difficult to access	not done		plastic	690884	8384829	606	2007	1.40			1.60	3	portable water	moderate		1.2	0	1.2
RWHT/NU/03	Khaiya	1	Ntcheu	chikhasu	Easily accessible	not done	Masonry		700872	8327017	1169	2009	1.60			2.80	10	portable water	poor		1.5	0	1.5
RWHT/KU/05	Gogo Steria Chirwa	6	Kasungu	Kapindula	Easily accessible	not done	Concrete		549786	8563185	1125	2007	1.60			3.00	11	portable water	poor		1.6	0	1.6
RWHT/LL/15	Nkhweza	4	Lilongwe	Chiwamba	Easily accessible	not done	Concrete		598648	8471805	1162	2011	1.60			3.80	18	portable water	effectively,		1.5	0	1.5
RWHT/DA/06	Kachera Poutly group	6	Dowa	Kachera	Easily accessible	not done	Concrete		596082	8488410	1383	2007	1.70			4.00	21	Livestock	abandoned (never used)		1.5	0	1.5
RWHT/DA/05	Chinsisi Poutly group	6	Dowa	Lavu	Easily accessible	not done	Concrete		594775	8493354	1103	2007	1.70			3.90	20	Livestock	abandoned		1.7	0	3.9
RWHT/LL/14	Bowa School	4	Lilongwe	Bowa	Easily accessible	not done	Masonry		580194	8477198	1206	2008	2.50			5.00	49	irrigation	abandoned		2	0	2
RWHT/DZ/08	Nsamala	3	Dedza	Nsamala	Easily accessible	not done	Concrete		671160	8403290	557	2007	3.00			5.00	59	irrigation	abandoned		2.8	0	2.8
RWHT/DZ/07	Kamunzi	3	Dedza	kamunsi/Mtakatak a/ Mlangeni	Easily accessible	not done	Concrete		667271	8428921	511	2008	1.90			3.90	23	top outlet	abandoned		1.7	0	1.7
RWHT/DZ/06	Moyompikiza	3	Dedza	Akubembeke	Easily accessible	not done	Masonry		650970	8409780	1577	2007	1.60			2.50	8	portable water	moderate		1.5	0	1.5
RWHT/DZ/05	Maonekera School	3	Dedza	kantande	Easily accessible	not done	Masonry		650794	8410607	1525	2005	1.90			3.60	19	portable water	abandoned		1.8	0	1.8
RWHT/DZ/04	Msesa	3	Dedza	Msesa	Easily accessible	not done	Concrete		651963	8414873	1492	2008	2.00			4.50	32	Livestock	abandoned		2	0	2
RWHT/LL/13	Pundu	4	Lilongwe	pundu	Easily accessible	not done	Masonry		589457	8427342	1152	2005	3.00			6.00	85	Livestock	abandoned		3	0	3
RWHT/DZ/03	Kasiyalichero	3	Dedza	Kasiyalichero	Easily accessible	not done	Concrete		619575	8428091	1193	2006	2.50			4.30	36	Livestock	abandoned		2	0	2
RWHT/LL/12	Chambwe	4	Lilongwe	Chambwe	Easily accessible	not done	Concrete		556803	8450306	1183	2008	1.40			1.60	3	portable water	abandoned		1.4	0	1.4
RWHT/DZ/36	Kachule	3	Dedza	Kachule	Easily accessible	not done	Masonry		615445	8416835	1395	2006	1.70			2.50	8	portable water, irrigation	moderate		1.5	0	1.5
RWHT/DA/06	Nyondo Cbo	6	Dowa	Nyondo	Accessible but with few difficulties	not done	Earth		594773	8493353	1428	2000	2.00			4.00	25	portable water	abandoned		1.8	0	1.8
RWHT/KU/04	Khuza Gogode	6	Kasungu	kamwinya	Accessible but with few difficulties	not done	Concrete		559188	8573758	1093	2008	1.90			4.00	24	portable water	effectively		1.9	0.25	1.65
RWHT/MZ/01	Jenda nasfam	7	Mzimba	james	Easily accessible	not done	Concrete		560514	8634412	1441	2006	2.45			5.00	48	irrigation	effectively		6	0	6
RWHT/KU/03	Shemu	6	Kasungu	Chipekwe	Easily accessible	not done	Masonry		551340	8548716	1125	2004	2.00	5.00	5.00		50	irrigation	abandoned		3	0	3
RWHT/KU/02	Nasfam Chamama	6	Kasungu	Chamama	Easily accessible	not done	Concrete		582891	8571836	1206	2009	2.70			5.00	53	irrigation	effectively		2.6	0.25	2.75
RWHT/KU/01	Chiphaso	6	Kasungu	Chiphaso	Easily accessible	not done	Concrete		555631	8555718	1111	2009	1.90			5.00	37	portable water	abandoned		1.5	0	1.5
RWHT/DA/05	Chiponde hills 2	6	Dowa	Mtifu	Easily accessible	not done	Masonry		585542	8492419	1306	2009	3.00			5.00	59	irrigation	abandoned		4.5	0	4.5

CHAPTER 2 TANK SURVEY

Tank Code	Tank Name	WATER RESOURCE AREA (WRA)	Catchment (m2)	intake structure	Canal			Water treatment and service					Irrigated area by Crop											
					canal type; open (earth), open (masonry) pipe (steel) pipe (pvc)	length	Size of the open canal	Size of the piped canal	Treatment plant	Treatment method	service area	Number of taps or houses supplied (Taps)	Number of taps or houses supplied (Houses)	Irrigation Area (name of place)	maize	time	vegetables	time	tree seedlings	time	number of irrigated farmers	name of the market	annual income of irrigated farmer	
RWHT/NU/09	Kuyenda School	1	161	bottom outlet					no						no									
RWHT/NU/09	Mgoola (Nsipe EPA office)	1	34	bottom outlet					no						no									
RWHT/NU/07	Mary malowa	1	60	bottom outlet					no		buluzi	1	1	no										
RWHT/NU/06	Mtambalika	1	60	bottom outlet					yes		nkhwani 2	1	1	no										
RWHT/NU/05	Symon Mtukula	1	25	bottom outlet					no		majiga 1	1	1	no										
RWHT/NU/04	Simon Chisale	1	40	bottom outlet					yes	chroline	mkhwani 2	1	1	no										
RWHT/NU/03	Khaiya	1	40	bottom outlet					yes	water guard	Chikhasu	1	1	no										
RWHT/KU/05	Gogo Steria Chirwa	6	45	bottom outlet					no		kapindula	1	1	no										
RWHT/LL/15	Nkhweza	4	30	bottom outlet					yes	chroline	chiwamba	1	1	no										
RWHT/DA/06	Kachera Poutly group	6	63	bottom outlet					no		kachera	1	1	no										
RWHT/DA/05	Chinsisi Poutly group	6	70	bottom outlet					no		lavu	1	1	no										
RWHT/LL/14	Bowa School	4	64	top outlet					no					no										
RWHT/DZ/08	Nsamala	3	15000	top outlet					no					no										
RWHT/DZ/07	Kamunzi	3	9000	top outlet					no					no										
RWHT/DZ/06	Moyompikiza	3	70	bottom outlet					yes	water guard	akubembeke	1	1	no										
RWHT/DZ/05	Maonekera School	3	300	bottom outlet					no					no										
RWHT/DZ/04	Msesa	3	80000	top outlet					no					no										
RWHT/LL/13	Pundu	4	100000						no					no										
RWHT/DZ/03	Kasiyalichero	3	150000	top outlet					no					no										
RWHT/LL/12	Chambwe	4	30	bottom outlet					no					no										
RWHT/DZ/36	Kachule	3	70	bottom outlet					yes	water guard	kachule	1	1	kachule			0.01	april-nov				1	thete	50000
RWHT/DA/06	Nyondo Cbo	6	40000						no					no										
RWHT/KU/04	Khuzi Gogode	6	56	bottom outlet					yes	chroline	kamwinya	1	1	no										
RWHT/MZ/01	Jenda nasfam	7	135	bottom outlet					no					Jenda Nasfam demonstration plot	0.1	april-july		0.1	dec-may			1	consumed locally	0
RWHT/KU/03	Shemu	6	5000						no					no										
RWHT/KU/02	Nasfam Chamama	6	98	bottom outlet					no					chamama				0.20	may-oct			1	chamama	distributed to farmers for free on the re-afforestation project
RWHT/KU/01	Chiphaso	6	176	bottom outlet					no			1	1	no										
RWHT/DA/05	Chiponde hills 2	6	60000	top outlet					no					no										

CHAPTER 2 TANK SURVEY

Tank Code	Tank Name	WATER RESOURCE AREA (WRA)	Livestock					Annual income per farmer	Wua		
			intake water (m ³ /day)	type of livestock					Market for selling Livestock	WUA organised	annual fee
				Pigs	Cattle	Goats	Chicken				
RWHT/NU/09	Kuyenda School	1							not organised		
RWHT/NU/09	Mgoola (Nsipe EPA office)	1							not organised		
RWHT/NU/07	Mary malowa	1							not organised		
RWHT/NU/06	Mtambalika	1							not organised		
RWHT/NU/05	Symon Mukula	1							not organised		
RWHT/NU/04	Simon Chisale	1							not organised		
RWHT/NU/03	Khaiya	1							not organised		
RWHT/KU/05	Gogo Steria Chirwa	6							not organised		
RWHT/LL/15	Nkhweza	4							organised		
RWHT/DA/06	Kachera Poutly group	6							organised		
RWHT/DA/05	Chinsisi Poutly group	6							organised		
RWHT/LL/14	Bowa School	4							not organised		
RWHT/DZ/08	Nsamala	3							not organised		
RWHT/DZ/07	Kamunzi	3							organised		
RWHT/DZ/06	Moyompikiza	3							not organised		
RWHT/DZ/05	Maonekera School	3							not organised		
RWHT/DZ/04	Msesa	3							not organised		
RWHT/LL/13	Pundu	4							not organised		
RWHT/DZ/03	Kasiyalichero	3							organised		
RWHT/LL/12	Chambwe	4							organised		
RWHT/DZ/36	Kachule	3							not organised		
RWHT/DA/06	Nyondo Cbo	6							not organised		
RWHT/KU/04	Khuza Gogode	6	2				45	khuza	2000	not organised	
RWHT/MZ/01	Jenda nasfam	7								not organised	
RWHT/KU/03	Shemu	6								not organised	
RWHT/KU/02	Nasfam Chamama	6								not organised	
RWHT/KU/01	Chiphaso	6								not organised	
RWHT/DA/05	Chiponde hills 2	6								not organised	

CHAPTER 2 TANK SURVEY

Tank Code	Tank Name	WATER RESOURCE AREA (WRA)	Water Rights		Operations and maintenance										date of survey	head of survey	Comments					
			Water Rights Payment	Annual fee	major structures maintained					Major Items maintained and cost	Issued on the major Structure							Source of budget	Rehabilitation Plan			
					Tank body	Bottom outlet	Top outlet	Tank Sedimentation	Other Structures maintained		leakage of the tank body	Reservoir sedimentation	Canal sedimentation	Others					Available	Not available	Major work Items	
RWHT/NU/09	Kuyenda School		1	un registered									yes					Not available	29/11/2012	Pempho sinkanda	the tank taps were stolen and not in use	
RWHT/NU/09	Mgoola (Nsipe EPA office)		1	un registered									yes					Not available	29/11/2012	Pempho sinkanda	the tank was abandoned because it has cracks and the coming of mpira piped water	
RWHT/NU/07	Mary malowa		1	un registered					the tank topping													
RWHT/NU/06	Mtambalika		1	un registered									yes			the tap outlet leaks	yes		seal the leaking tap top	30/11/2012	pempho sinkanda	
RWHT/NU/05	Symon Mtukula		1	un registered									yes	yes				not available		30/11/2012	pempho sinkanda	the tank is personal and it has cracks hence does not keep water
RWHT/NU/04	Simon Chisale		1	un registered											the tap tank is	yes		fix the broken tap	30/11/2012	pempho sinkanda		
RWHT/NU/03	Khaiya		1	un registered														not available		29/11/2012	pempho sinkanda	the tank is ok just waiting to fix the taptop that was stolen
RWHT/KU/05	Gogo Steria Chirwa		6	un registered											movement of the	yes		resealing the concrete, some water	25/11/2012	pempho sinkanda		
RWHT/LL/15	Nkhweza		4	un registered														not available		30/11/2012	pempho sinkanda	the tank was built to help provide water to the milk treatment plant. It is working only that the water in the tank is not enough as the pipes releases water in transit to the tank
RWHT/DA/06	Kachera Poutly group		6	un registered														not available		26/11/2012	pempho sinkanda	the tank was built but never used as the project did not start
RWHT/DA/05	Chinsisi Poutly group		6	un registered														not available		26/11/2012	pempho sinkanda	the tank was built for livestock but since 2009 it has not been used. Currently they only use it for domestic use during the rainy season
RWHT/LL/14	Bowa School		4	un registered													yes		maintain the wood hoarding the tank roof	27/11/2012	pempho sinkanda	the tank was meant for irrigation but currently not in use because it is not complete
RWHT/DZ/08	Nsamala		3	un registered														not available		30/11/2012	pempho sinkanda	the tank was meant for irrigation but currently not in use
RWHT/DZ/07	Kamunzi		3	un registered														not available		30/11/2012	pempho sinkanda	the tank was meant for fish culture but currently not in use since it is incomplete and in the current state it has cracks
RWHT/DZ/06	Moyompikiza		3	un registered					cleaned the tank body									not available		29/11/2012	pempho sinkanda	
RWHT/DZ/05	Maonekera School		3	un registered														not available		29/11/2012	pempho sinkanda	the tank was built but never used because it is incomplete, the pipes pipes getting water from the rooftop were not installed
RWHT/DZ/04	Msesa		3	un registered														not available		29/11/2012	pempho sinkanda	the tank is not in use
RWHT/LL/13	Pundu		4	un registered									yes				yes		removal of sediments in the tank body	28/11/2012	pempho sinkanda	
RWHT/DZ/03	Kasiyalichero		3	un registered									yes				yes		to seal the leakage of tank body	28/11/2012	pempho sinkanda	the tank was aimed at keeping water for irrigation but currently it does not keep water since it has cracks
RWHT/LL/12	Chambwe		4	un registered														not available		26/11/2012	pempho sinkanda	there tank was stolen
RWHT/DZ/36	Kachule		3	un registered														not available		28/11/2012	pempho sinkanda	the tank is working only that it depends on the availability of rain water and also the tap valve is damaged that makes it hard to use at times
RWHT/DA/06	Nyondo Cbo		6	un registered														not available		26/11/2012	pempho sinkanda	the tank was built but since it was incomplete they filled it with soil to prevent accident and also to avoid turning it into a breeding zone of mosquitoes
RWHT/KU/04	Khuza Gogode		6	un registered													yes		replacement of a broken pipe, removal of sediments	25/11/2012	pempho sinkanda	
RWHT/MZ/01	Jenda nasfam		7	un registered									yes			Nasfam	yes		to cover the tank to reduce evaporation	25/11/2012	pempho sinkanda	the tank belongs to nasfam and it is only used to irrigate their demonstration plot
RWHT/KU/03	Shemu		6	un registered														not available		25/11/2012	pempho sinkanda	the tank construction was not completed making it unusable
RWHT/KU/02	Nasfam Chamama		6	un registered													yes		to cover the tank to reduce evaporation	25/11/2012	pempho sinkanda	the tank does not have the topping to prevent evaporation
RWHT/KU/01	Chiphaso		6	un registered									yes					not available		25/11/2012	pempho sinkanda	the tank body has cracks and it does not keep water
RWHT/DA/05	Chiponde hills 2		6	un registered														not available		26/11/2012	pempho sinkanda	the dam construction was completed but not in use

CHAPTER 2 TANK SURVEY

Tank Code	Tank Name	WATER RESOURCE AREA (WRA)	Location		Tank										Tank								
			District/City	Village	Accessibility	Identification & Marking on topo. Map	Tank Type		GPS Coordinates of the Tank			Year of construction	Tank Height	Tank length	Tank width	Diameter (m)	Tank Volume (m ³)	Purpose	Usage	Rotation during dry season	Normal Water Level (NWL) (m)	Lowest Water Level (LWL) (m)	Difference between NWL and LWL (approx. m)
							Earth; Masonry; Concrete	Others (Specify)	Longitudes	Latitudes	Elevation							Portable water; Irrig.; Livestock; Fish culture	Effectively; Moderate; Poor; Abandoned				
RWHT/DA/04	Chiponde hills	6	Dowa	Mtifu	Easily accessible	not done	Masonry		585542	8492397	1337	2009	2.90			5.00	57	irrigation	abandoned		2.5	0	2.5
RWHT/DA/03	Byanzi prison	6	Dowa	Chimwazi	Easily accessible	not done	Masonry		589562	8487414	1249	2004	3.10			9.00	197	irrigation	abandoned		1	0	1
RWHT/DA/02	Minju Piggery group	6	Dowa	Minju	Easily accessible	not done	Concrete		590932	8485485	1097	2009	1.98			4.00	25	irrigation	moderate		1.5	0	1.5
RWHT/DA/01	Magode pouty group	6	Dowa	magode	Easily accessible	not done	Concrete		619054	8480886	1138	2007	1.87			3.00	13	Livestock	moderate		1.5	0	1.5
RWHT/LL/11	Katola School	4	Lilongwe	Katola	Easily accessible	not done	Masonry		588974	8471265	1116	2007	2.50			7.00	96	Livestock	abandoned		2.5	0	2.5
RWHT/DZ/02	Kamala	3	Dedza	Kamala	Easily accessible	not done	Masonry		614822	8407251	1290	2005	4.60			7.50	203	Livestock	abandoned		4.5	0	4.5
RWHT/NU/02	Sabwera 2	4	Nicheu	Sabwera 2	Easily accessible	not done		plastic	704907	8346877	782	2007	1.60			1.40	2	portable water	moderate		1.5	0	1.5
RWHT/NU/01	Pembereka	4	Nicheu	pembeleka	Easily accessible	not done		plastic	702363	8343700	721	2007	1.60			1.40	2	portable water	moderate		1.5	0	1.5
RWHT/DZ/01	kalamula	3	Dedza	Akubembeke	Easily accessible	not done		plastic	650980	8412924	1515	2010	1.00	1.10	1.00		1	portable water	effectively		1	0	1
RWHT/LL/10	Male	4	Lilongwe	male	Accessible but with few	not done	Masonry		556133	8477793	1154	2007	1.60			4.80	29	irrigation	abandoned		1.5	0	1.5
RWHT/LL/09	Chingwalan'wanda	4	Lilongwe	Chingwalan'wanda	Accessible but with few difficulties	not done	Concrete		564523	8467882	1133	2009	2.10			3.10	16	portable water	abandoned		1.9	0	1.9
RWHT/LL/08	Mai Akhalidwe 1	4	Lilongwe	mtisunge chitedze	Easily accessible	not done	Concrete		569041	8454825	1141	2004	1.63			1.64	3	irrigation	effectively		1.5	0	1.5
RWHT/LL/08	Mai Akhalidwe 2	4	Lilongwe	mtisunge chitedze	Easily accessible	not done	Concrete		569064	8454844	1141	2008	1.50	1.90	3.30		9	irrigation, livestock	effectively		1.9	0	1.9
RWHT/LL/06	Group mzungu	4	Lilongwe	Mzungu	Easily accessible	not done		plastic	569464	8456477	1117	2005	2.00			1.40	3	portable water	moderate		1.8	0	1.8
RWHT/LL/05	Mawelo primary School	4	Lilongwe	Ng'omba	Easily accessible	not done	Masonry		557770	8446105	1144	2009	4.70			4.00	59	irrigation	abandoned		4	0	4
RWHT/LL/04	Min'ongo CDSS	4	Lilongwe	Mphonda	Easily accessible	not done	Masonry		548282	8443520	1138	2007	1.97			3.60	20	irrigation	effectively		1.7	0	1.7
RWHT/LL/03	Nathenje Nasfam	4	Lilongwe	nathenje	Easily accessible	not done	Masonry		601898	8442988	1155	2009	2.50			6.00	71	irrigation	moderate		2	0	2
RWHT/LL/02	Bunda College 1	4	Lilongwe	bunda college 1	Easily accessible	not done	Concrete		583497	8431731	1197	2006	2.50			4.20	35	irrigation	abandoned		4	0	4
RWHT/LL/01	Bunda College 2	4	Lilongwe	bunda college 1	Easily accessible	not done	Concrete		583460	8431692	1190	2006	3.00			5.00	59	irrigation	abandoned		2.5	0	2.5
RWHT/ZA/01	Zomba Nasfam	2	Zomba	Thondwe	Easily accessible	not done	Concrete		740142	8286837	987	2010	2.50			6.00	71	irrigation	abandoned		2.5	0	2.5
RWHT/PE/08	Namandwa 1	14	Phalombe	Namandwa	Accessible but with few	not done	Earth		784678	8271221	676	2006	3.00	20.00	20.00		1,200	irrigation	moderate	more	3	0	3
RWHT/PE/07	Jackson	14	Phalombe	Namandwa	Accessible but with few	not done	masonry		784881	8271275	684	2002	2.00			3.00	14	portable water	abandoned		1.8	0	1.8
RWHT/PE/06	Kandaya/Khamula	14	Phalombe	Nyezeleru	Accessible but with few	not done	earth		783482	8266644	741	2008	2.00	20.00	30.00		1,200	irrigation, livestock	moderate	more	2.5	0	2.5
RWHT/PE/05	Mkoko 1	14	Phalombe	Mkoko	Accessible but with few difficulties	not done	masonry		786793	8268893	694	2009	3.00			7.00	115	irrigation	moderate	more	2.8	0	2.8
RWHT/PE/0	Mkoko 3	14	Phalombe	Mkoko	Accessible but with few difficulties	not done	masonry		787077	8268921	690	2009	3.00			7.00	115	irrigation	moderate	more	2.8	0	2.8
RWHT/PE/03	Mkoko 2	14	Phalombe	Mkoko	Accessible but with few difficulties	not done	masonry		786991	8262221	581	2009	2.40			3.00	17	irrigation	moderate	more	2	0	2

CHAPTER 2 TANK SURVEY

Tank Code	Tank Name	WATER RESOURCE AREA (WRA)	Catchment (m2)	intake structure	Canal			Water treatment and service					Irrigated area by Crop													
					canal type: open (earth), open (masonry) pipe (steel) pipe (pvc)	length	Size of the open canal	Size of the piped canal	Treatment plant	Treatment method	service area	Number of taps or houses supplied (Taps)	Number of taps or houses supplied (Houses)	Irrigation Area (name of place)	maize	time	vegetables	time	tree seedlings	time	number of irrigated farmers	name of the market	annual income of irrigated farmer			
RWHT/DA/04	Chiponde hills	6	20000	top outlet					no						no											
RWHT/DA/03	Byanzi prison	6	1600						no						no											
RWHT/DA/02	Minji Piggery group	6	100	bottom outlet					no						no											
RWHT/DA/01	Magode poutly group	6	60	bottom outlet					no			1	1	no												
RWHT/LL/11	Katola School	4	27.5	top outlet					no					no												
RWHT/DZ/02	kamala	3	64000	bottom outlet					no					no												
RWHT/NU/02	Sabwera 2	4	216	bottom outlet					no		sabwera 2	1	1	no												
RWHT/NU/01	Pembereka	4	56	bottom outlet					yes	water guard	pembereka	1	1	no												
RWHT/DZ/01	kalamula	3	15	bottom outlet					no		kalamula	1	1	no												
RWHT/LL/10	Male	4	3000	top outlet					no					no												
RWHT/LL/09	Chingwalan'wanda	4	32	bottom outlet					no					no												
RWHT/LL/08	Mai Akhalidwe 1	4	40	bottom outlet					no					Mtisunge			0.1	march-dec				1	local market		40000	
RWHT/LL/08	Mai Akhalidwe 2	4	63	bottom outlet					no					Mtisunge			0.1	march-dec				1	local market		30000	
RWHT/LL/06	Group mzungu	4	37	bottom outlet					yes	chroline	group mzungu	1	1	no												
RWHT/LL/05	Mawelo primary School	4	40000	top outlet					no					no												
RWHT/LL/04	Min'ongo CDSS	4	60	bottom outlet					no					Ming'ongo CDSS			0.1	march-oct				1	sold locally		15000	
RWHT/LL/03	Nathenje Nasfam	4	120	bottom outlet					no					nathenje nasfam				0.2	may-dec			1		distributed to farmers for free on the re-afforestation project		
RWHT/LL/02	Bunda College 1	4	96	bottom outlet					no					no												
RWHT/LL/01	Bunda College 2	4	108	bottom outlet					no					no												
RWHT/ZA/01	Zomba Nasfam	2	275	bottom outlet					no					no												
RWHT/PE/08	Namandwa 1	14	400	top outlet	open earth	100			no					namandwa		0.4	june-oct		0.4	june-nov			30	manandwa		20000
RWHT/PE/07	Jackson	14	35	bottom outlet					yes	water guard	Namandwa	1	1	no												
RWHT/PE/06	Kandaya/Khamula	14	600	top outlet					no					kandaya		0.2	mar- aug		0.2	march-aug			10	nyezelera		10500
RWHT/PE/05	Mkoko 1	14	40000	top outlet					no					Mkoko 1		0.1	apr- june		0.1	April- July			10	mkoko		1000
RWHT/PE/0	Mkoko 3	14	10000	top outlet					no					Mkoko 3				0.1	april-august				8	mkoko		1000
RWHT/PE/03	Mkoko 2	14	40000	top outlet					no					Mkoko 2				0.1	april-July				10	mkoko		2000

CHAPTER 2 TANK SURVEY

Tank Code	Tank Name	WATER RESOURCE AREA (WRA)	Livestock					Annual income per farmer	Wua		
			intake water (m ³ /day)	type of livestock					Market for selling Livestock	WUA organised	annual fee
				Pigs	Cattle	Goats	Chicken				
RWHT/DA/04	Chiponde hills	6							not organised		
RWHT/DA/03	Byanzi prison	6							not organised		
RWHT/DA/02	Minju Piggery group	6 300	30				locally	40000	organised		
RWHT/DA/01	Magode poutly group	6 40	4				mvela	30000	organised		
RWHT/LL/11	Katola School	4							organised		
RWHT/DZ/02	kamala	3							not organised		
RWHT/NU/02	Sabwera 2	4							not organised		
RWHT/NU/01	Pembereka	4							not organised		
RWHT/DZ/01	kalamula	3							not organised		
RWHT/LL/10	Male	4							organised		
RWHT/LL/09	Chingwala'nwanda	4							not organised		
RWHT/LL/08	Mai Akhalidwe 1	4							not organised		
RWHT/LL/08	Mai Akhalidwe 2	4							not organised		
RWHT/LL/06	Group mzungu	4							not organised		
RWHT/LL/05	Mawelo primary School	4							not organised		
RWHT/LL/04	Min'ongo CDSS	4							organised		
RWHT/LL/03	Nathenje Nasfam	4							not organised		
RWHT/LL/02	Bunda College 1	4							not organised		
RWHT/LL/01	Bunda College 2	4							not organised		
RWHT/ZA/01	Zomba Nasfam	2							not organised		
RWHT/PE/08	Namandwa 1	14							organised		
RWHT/PE/07	Jackson	14							not organised		
RWHT/PE/06	Kandaya/Khamula	14 1300		50	60		Namandwa		not organised		
RWHT/PE/05	Mkoko 1	14							organised		
RWHT/PE/0	Mkoko 3	14							organised		
RWHT/PE/03	Mkoko 2	14							organised		

CHAPTER 2 TANK SURVEY

Tank Code	Tank Name	WATER RESOURCE AREA (WRA)	Water Rights		Operations and maintenance										date of survey	head of survey	Comments				
			Water Rights Payment	Annual fee	major structures maintained					Major Items maintained and cost	Issued on the major Structure							Source of budget	Rehabilitation Plan		
					Tank body	Bottom outlet	Top outlet	Tank Sedimentation	Other Structures maintained		leakage of the tank body	Reservoir sedimentation	Canal sedimentation	Others					Available	Not available	Major work Items
RWHT/DA/04	Chiponde hills	6	un registered														not available		26/11/2012	pempho sinkanda	the dam construction was completed but not in use
RWHT/DA/03	Byanzi prison	6	un registered														not available		26/11/2012	pempho sinkanda	the tank construction was not completed and the structures to make it usable are not there. It has never been used before
RWHT/DA/02	Minju Piggery group	6	un registered														not available		26/11/2012	pempho sinkanda	the reservoir has some cracks and does not keep water all year through
RWHT/DA/01	Magode poutly group	6	un registered														not available		26/11/2012	pempho sinkanda	they lack water treatment drugs and the water is not enough all year long
RWHT/LL/11	Katola School	4	un registered														not available		28/11/2012	pempho sinkanda	the tank was for irrigation but not in use
RWHT/DZ/02	kamala	3	un registered														not available		28/11/2012	pempho sinkanda	the tank was not completed and it releases water (seepage)
RWHT/NU/02	Sabwera 2	4	un registered														not available		29/11/2012	pempho sinkanda	te tank is ok only that it depends on rainwater to be used
RWHT/NU/01	Pembereka	4	un registered		yes						maintained the base of the tank						not available		29/11/2012	pempho sinkanda	
RWHT/DZ/01	kalamula	3	un registered														not available		29/11/2012	pempho sinkanda	the tank is privately owned
RWHT/LL/10	Male	4	un registered									yes	yes				not available		27/11/2012	pempho sinkanda	the tanks was built but it is not used as it leaks at the bottom and releases water into
RWHT/LL/09	Chingwala'nwanda	4	un registered														not available		26/11/2012	pempho sinkanda	the tank is available with no problem but not in use as the project ended before the tank was been used
RWHT/LL/08	Mai Akhalidwe 1	4	un registered										yes				not available		24/11/2012	pempho sinkanda	the tank is privately owned
RWHT/LL/08	Mai Akhalidwe 2	4	un registered										yes				not available		26/11/2012	pempho sinkanda	the tank is privately owned
RWHT/LL/06	Group mzangu	4	un registered														not available		26/11/2012	pempho sinkanda	the tank is ok but it is small to keep adequate water to be used in the dry season
RWHT/LL/05	Mawelo primary School	4	un registered														not available		26/11/2012	pempho sinkanda	the tank is available but lack of tool to be using when irrigation is tendering the dam unusable
RWHT/LL/04	Min'ongo CDSS	4	un registered									yes			yes		fix the tap valve and the tank cracks		27/11/2012	pempho sinkanda	
RWHT/LL/03	Nathenje Nasfam	4	un registered														not available		28/11/2012	pempho sinkanda	
RWHT/LL/02	Bunda College 1	4	un registered									yes			yes		maintain the cracks on the dam body		28/11/2012	pempho sinkanda	the tank belongs to the college but currently not used as it deloped cracks
RWHT/LL/01	Bunda College 2	4	un registered									yes			yes		maintain the dam body		28/11/2012	pempho sinkanda	the tank was used by the crop science derpatment but currently not in use as it developed cracks and does not keep water
RWHT/ZA/01	Zomba Nasfam	2	un registered									yes			yes		seal the leaks from the tank body		17/12/2012	pempho sinkanda	the water gutters on the other side of the roof releases a lot of water, the tank body base has cracks and leaks all the water, the tank body has developed some cracks as well
RWHT/PE/08	Namandwa 1	14	registered									yes			yes		removal of sediments and increasing water		17/12/2012	pempho sinkanda	the tank is hoarding less water due to evaporation
RWHT/PE/07	Jackson	14	un registered									yes			yes		seal the leakage		17/12/2012	pempho sinkanda	the tank body leaks and needs to be sealed
RWHT/PE/06	Kandaya/Khamula	14	un registered									yes			yes		removal of sediments		17/12/2012	pempho sinkanda	situation of the dam body, one of the tank walls was washed away increasing runoff
RWHT/PE/05	Mkoko 1	14	un registered													not available			17/12/2012	pempho sinkanda	the tank body has developed cracks, it needs concrete to seal it to avoid further cracking, they received a drip kit but they are not using it because they don't now how
RWHT/PE/0	Mkoko 3	14	un registered										yes			not available			17/12/2012	pempho sinkanda	the water inlet canal is heavily silted, the dam is silted, the wood hoarding the rooftop was destroyed by termites and it needs replacement preferably matal stands
RWHT/PE/03	Mkoko 2	14	un registered													not available			17/12/2012	pempho sinkanda	the wood hoarding the rooftop needs maintainance, the tank needs concrete lining

CHAPTER 2 TANK SURVEY

Tank Code	Tank Name	WATER RESOURCE AREA (WRA)	Location		Tank											Tank							
			District/City	Village	Accessibility	Identification & Marking on topo. Map	Tank Type		GPS Coordinates of the Tank			Year of construction	Tank Height	Tank length	Tank width	Diameter (m)	Tank Volume (m ³)	Purpose	Usage	Rotation during dry season	Normal Water Level (NWL) (m)	Lowest Water Level (LWL) (m)	Difference between NWL and LWL (approx. m)
							Earth; Masonry; Concrete	Others (Specify)	Longitudes	Latitudes	Elevation							Portable water; Irrig.; Livestock; Fish culture	Effectively; Moderate; Poor; Abandoned				
RWHT/PE/02	Mulukunya	14	Phalombe	murukunya	Accessible but with few difficulties	not done	earth		781577	8261542	715	2006	2.20	70.00	60.00		9,240	irrigation	moderate	more	1	0	1
RWHT/PE/01	Nyezelera	14	Phalombe	Nyezelera	Accessible but with few difficulties	not done	concrete		782761	8265354	728	2002	2.10			3.00	15	portable water	abandoned		2	0	1
RWHT/BT/07	Malanga	14	Blantyre	Malanga	Easily accessible	not done	concrete		7416410	8281209	601	2009	3.00			7.00	115	irrigation	effectively		2.8	0	2.8
RWHT/BT/06	Ntonda EPA	14	Blantyre	beni	Easily accessible	not done	concrete		710211	8245896	896	2000	2.00			3.00	14	portable water	effectively		2	0	2
RWHT/BT/05	Kalitsilo	14	Blantyre	kalitsilo	Easily accessible	not done	concrete		707116	8243990	900	2009	3.00			5.00	59	irrigation	moderate		2.8	0	2.8
RWHT/BT/04	Kesinala	14	Blantyre	kesinala	Very difficult to access	not done	concrete		700896	8273139	588	2009	2.00			6.00	57	irrigation	abandoned		1.9	0	1.9
RWHT/BT/03	kalombola	14	Blantyre	Mdeka	Easily accessible	not done	concrete		708346	8295055	541	2004	2.00			3.20	16	portable water	moderate		1.8	0	1.8
RWHT/BT/02	Jailosi	14	Blantyre	Jailosi	Easily accessible	not done	concrete		705349	8294532	495	2012	2.20			5.00	43	irrigation	moderate		1.8	0	1.8
RWHT/BT/01	Chilambo	14	Blantyre	mwangaule	Easily accessible	not done	concrete		708054	8297978	543	2009	2.00			4.50	32	portable water	effectively		1.8	0	1.8
RWHT/SA/09	Kapanda 1	6	Salima	kapanda	Accessible but with few difficulties	not done	concrete		653505	8487334	502	2007	2.20			4.00	28	irrigation	moderate		2	0	2
RWHT/SA/016	Matewele	6	Salima	matewele	Easily accessible	not done	masonry		660323	8455620	492	2007	3.00			9.30	204	irrigation	poor		2.5	0	2.5
RWHT/SA/15	Chioko	6	Salima	Mikuju	Easily accessible	not done		plastic	662075	8451133	430	2004	1.80			1.40	3	portable water	effectively		1.6	0	1.6
RWHT/SA/14	Banja	6	Salima	Sandu	Easily accessible	not done		plastic	662034	8449106	489	2004	1.80			1.60	4	portable water	abandoned		1.4	0	1.4
RWHT/SA/13	Ethe! Maunda	6	Salima	Kambalame	Easily accessible	not done	masonry		663372	8440738	508	2007	1.60			3.80	18	portable water, irrigation	effectively		1.5	0	1.5
RWHT/SA/12	S4	6	Salima	Section 4	Easily accessible	not done	masonry		648381	8489456	515	2007	2.30			7.30	96	irrigation	abandoned		2	0	2
RWHT/SA/10	Justin	6	Salima	Justin	Easily accessible	not done	masonry		658210	8453941	532	2007	3.00			5.50	71	irrigation	moderate	more	2.5	0	2.5
RWHT/SA/01	Kalinde	6	Salima	Kalinde	Easily accessible	not done	concrete		642346	8472356	610	2007	3.00			6.50	99	portable ater	abandoned		2.5	0	2.5
RWHT/SA/03	Mgoza	6	Salima	Mgoza	Easily accessible	not done	masonry		647904	8485289	535	2007	3.00			6.00	85	irrigation	moderate		2.5	0	2.5
RWHT/SA/02	Mgoza School	6	Salima	Chinguluwe	Easily accessible	not done	concrete		647814	8485108	539	2007	3.00			6.00	85	portable water, irrigation	abandoned		2.5	0	2.5
RWHT/SA/04	Malendo	6	Salima	Malendo	Easily accessible	not done	concrete		664941	8444572	489	2007	3.00			7.30	125	irrigation	abandoned		2.5	0	2.5
RWHT/SA/05	Jelabu	6	Salima	Jelabu	Easily accessible	not done	masonry		644950	8484332	556	2007	3.00			2.00	9	irrigation	abandoned		2.5	0	2.5
RWHT/SA/06	Sonlise	6	Salima	Ngwena	Easily accessible	not done		plastic	661934	8452690	496	2011	1.50			1.00	1	portable water	abandoned		1.3	0	1.3
RWHT/SA/07	Chimbalanga	6	Salima	Chimbalanga	Easily accessible	not done	masonry		585437	8456206	532	2007	2.70			5.70	69	irrigation	abandoned		2.5	0	2.5
RWHT/SA/10	Kapanda 2	6	Salima	kapanda	Accessible but with few difficulties	not done	masonry		653490	8487334	504	2007	2.20			7.30	92	irrigation	abandoned		2	0	2
RWHT/SA/11	Chinguluwe EPA	6	Salima	Chinguluwe	Easily accessible	not done		plastic	649157	8488693	515	2009	1.60			1.30	2	portable water	moderate		1.5	0	1.5

CHAPTER 2 TANK SURVEY

Tank Code	Tank Name	WATER RESOURCE AREA (WRA)	Catchment (m2)	intake structure	Canal			Water treatment and service					Irrigated area by Crop											
					canal type; open (earth), open (masonry) pipe (steel) pipe (pvc)	length	Size of the open canal	Size of the piped canal	Treatment plant	Treatment method	service area	Number of taps or houses supplied (Taps)	Number of taps or houses supplied (Houses)	Irrigation Area (name of place)	maize	time	vegetables	time	tree seedlings	time	number of irrigated farmers	name of the market	annual income of irrigated farmer	
RWHT/PE/02	Murukunya	14	15000					no						murukunya			1	april-june				30	murukunya	40000
RWHT/PE/01	Nyezelera	14		bottom outlet				no		nyezelera		1	1	no										
RWHT/BT/07	Malanga	14	40000	top outlet				no						malanga			0.1	april-june				10	lilangwe	2500
RWHT/BT/06	Ntonda EPA	14	67.5	bottom outlet				yes	chroline	beni		1	1	no										
RWHT/BT/05	Kalitsilo	14	10000	top outlet				no						kalichelo	0.1	mar- aug	0.1	march-aug				10	kalitsilo	the money is for a community project
RWHT/BT/04	Kesinala	14	10000	top outlet				no						no										
RWHT/BT/03	kalombola	14	91	bottom outlet				yes	chroline	kalombola		1	1	no										
RWHT/BT/02	Jailosi	14	1000	top outlet				no						jailosi			0.1	march-july				27	Jailosi	2500
RWHT/BT/01	Chilambo	14	84	bottom outlet				yes	water guard	mwangaule		1	1	no										
RWHT/SA/09	Kapanda 1	6	300	top outlet				no						kapanda			0.1	april-july				85	kapanda	the money is used at the ophanage
RWHT/SA/016	Matewele	6	40000	top outlet				no						matewele	0.1	apr- oct	0.1	apr- oct				80	Chipoka	Community help for ophans
RWHT/SA/15	Chioko	6	56.12	bottom outlet				no				1	1											
RWHT/SA/14	Banja	6	9	bottom outlet				no						no										
RWHT/SA/13	Ethel Maunda	6	54	bottom outlet				no		kambalame		1	1	kambalame										
RWHT/SA/12	S4	6	30000					no						no										
RWHT/SA/10	Justin	6	20000	top outlet				no						justin			0.1	march-june				22	chipoka	the money is used for community development
RWHT/SA/01	Kalinde	6	108	bottom outlet				no		kalinde		1	1	no										
RWHT/SA/03	Mgoza	6	40	bottom outlet				no		Mgoza		1	1	no										
RWHT/SA/02	Mgoza School	6	10000					no						no										
RWHT/SA/04	Malendo	6	10000	top outlet				no						no										
RWHT/SA/05	Jelabu	6	40000	top outlet				no						no										
RWHT/SA/06	Sonlise	6	25	bottom outlet				no				1	1	no										
RWHT/SA/07	Chimbalanga	6	40000	top outlet				no						no										
RWHT/SA/10	Kapanda 2	6	180	top outlet				no						no										
RWHT/SA/11	Chinguluwe EPA	6	24	bottom outlet				no				1	1	no										

CHAPTER 2 TANK SURVEY

Tank Code	Tank Name	WATER RESOURCE AREA (WRA)	Livestock					Annual income per farmer	Wua		
			intake water (m ³ /day)	type of livestock					Market for selling Livestock	WUA organised	annual fee
				Pigs	Cattle	Goats	Chicken				
RWHT/PE/02	Mulukunya	14	1000		40	80		murukunya		organised	
RWHT/PE/01	Nyezelera	14								not organised	
RWHT/BT/07	Malanga	14								organised	
RWHT/BT/06	Ntonda EPA	14								not organised	
RWHT/BT/05	Kalitsilo	14								organised	
RWHT/BT/04	Kesinala	14								organised	
RWHT/BT/03	kalombola	14								not organised	
RWHT/BT/02	Jailosi	14								organised	
RWHT/BT/01	Chilambo	14								not organised	
RWHT/SA/09	Kapanda 1	6								organised	
RWHT/SA/016	Matewele	6								organised	
RWHT/SA/15	Chioko	6								not organised	
RWHT/SA/14	Banja	6								not organised	
RWHT/SA/13	Ethel Maunda	6								not organised	
RWHT/SA/12	S4	6								not organised	
RWHT/SA/10	Justin	6								organised	
RWHT/SA/01	Kalinde	6								not organised	
RWHT/SA/03	Mgoza	6								not organised	
RWHT/SA/02	Mgoza School	6								not organised	
RWHT/SA/04	Malendo	6								not organised	
RWHT/SA/05	Jelabu	6								not organised	
RWHT/SA/06	Sonise	6								not organised	
RWHT/SA/07	Chimbalanga	6								organised	
RWHT/SA/10	Kapanda 2	6								not organised	
RWHT/SA/11	Chinguluwe EPA	6								not organised	

CHAPTER 2 TANK SURVEY

Tank Code	Tank Name	WATER RESOURCE AREA (WRA)	Water Rights		Operations and maintenance										Source of budget	Rehabilitation Plan			date of survey	head of survey	Comments	
			Water Rights Payment	Annual fee	major structures maintained					Major Items maintained and cost	Issued on the major Structure					Available	Not available	Major work Items				
					Tank body	Bottom outlet	Top outlet	Tank Sedimentation	Other Structures maintained		leakage of the tank body	Reservoir sedimentation	Canal sedimentation	Others								
RWHT/PE/02	Mulukunya	14	un registered						dam body removal of sediments		own cost		yes				yes		removal of sediments after the rainy season	17/12/2012	pempho sinkanda	the catchment area of the reservoir needs protection to avoid siltation of the tank body, the tank wall needs concrete lining to stop erosion of the wall
RWHT/PE/01	Nyezelera	14	un registered														not available			17/12/2012	pempho sinkanda	the tank was abandoned as the owner of the house passed away
RWHT/BT/07	Malanga	14	un registered										yes				not available			16/12/2012	pempho sinkanda	the reservoir has sediments, the tank seem to have cracks because it loses water esly
RWHT/BT/06	Ntonda EPA	14	un registered														not available			16/12/2012	pempho sinkanda	the tap and the valve have problems but the tank is working perfectly
RWHT/BT/05	Kalitsilo	14	un registered										yes	yes			not available			16/12/2012	pempho sinkanda	the tank has no cover, the tank is heavily sedimented, they have aproblem with how to get water as they do not know how to use the drip, their water inlet is heavily
RWHT/BT/04	Kesinala	14	un registered									yes	yes				not available			16/12/2012	pempho sinkanda	the tank has cracks and does not keep enough water, insufficient rainfall is making the tank not to have adequate water for the intended use, they don't agree on sediments dredging, the outlet system is not working, they need to be trained on how to use drip
RWHT/BT/03	kalombola	14	un registered													availabl e		fix the leaking tap and the water outlet	16/12/2012	pempho sinkanda	the tap and the water outlet needs fixing, the gutters needs fixing as well because they loose water	
RWHT/BT/02	Jailosi	14	un registered														not available			16/12/2012	pempho sinkanda	security and safety of the tank as a child died last year, it does not keep enough water for the whole growing season
RWHT/BT/01	Chilambo	14	un registered														not available			16/12/2012	pempho sinkanda	the tank belongs to an individual and it is functioning
RWHT/SA/09	Kapanda 1	6	un registered														not available			15/12/2012	pempho sinkanda	
RWHT/SA/016	Matewele	6	un registered														not available			15/12/2012	pempho sinkanda	the tank is ok and functioning
RWHT/SA/15	Chioko	6	un registered														not available			15/12/2012	pempho sinkanda	
RWHT/SA/14	Banja	6	un registered														not available			15/12/2012	pempho sinkanda	their tank got bunt
RWHT/SA/13	Ethel Maunda	6	un registered													availabl e		clean the tank/ sediments dredging	15/12/2012	pempho sinkanda	the tank is for portable water but she does not receive choline for treatment, the gutters needs fixing as they release water	
RWHT/SA/12	S4	6	un registered									yes	yes				not available			15/12/2012	pempho sinkanda	the tank body has cracks and the roofing was stolen
RWHT/SA/10	Justin	6	un registered									yes				availabl e		seal the leakage and provide irrigation tools	15/12/2012	pempho sinkanda	the body has cracks and the water leaks, they have a problem when using their drip irrigation kit, their tank wall need lining with concrete	
RWHT/SA/01	Kalinde	6	un registered									yes					not available			15/12/2012	pempho sinkanda	the tank was wrongly designed hence it gives spaces for water to leak, the basement of the tank has cracks
RWHT/SA/03	Mgoza	6	un registered														not available			15/12/2012	pempho sinkanda	the tank is used by the nearby health centre only that it depends on rains
RWHT/SA/02	Mgoza School	6	un registered														not available			15/12/2012	pempho sinkanda	the tank was not completed as the department of land resources had no funds to complete the project
RWHT/SA/04	Malendo	6	un registered													availabl e		fix the tank roofing	15/12/2012	pempho sinkanda	the drainage carrying water from the catchment area to the tank is heavily silted, the tank roofing needs maintenance, they suspect the body to have some cracks, they are not irrigating currently due to lack of enough water due to the dry spell last year	
RWHT/SA/05	Jelabu	6	un registered									yes				availabl e		seal the cracks	15/12/2012	pempho sinkanda	the tank is not been used due to less rainfall that also reduce the availability of water in the tank, the tank has cracks	
RWHT/SA/06	Sonlise	6	un registered														not available			15/12/2012	pempho sinkanda	they are waiting to fix gutters for the tank to be operational
RWHT/SA/07	Chimbalanga	6	un registered						sediments dredging								not available			15/12/2012	pempho sinkanda	the tank body has cracks and does not keep water for the intended purpose of irrigation
RWHT/SA/10	Kapanda 2	6	un registered									yes					not available			15/12/2012	pempho sinkanda	the tanks has cracks and does not keep water
RWHT/SA/11	Chinguluwe EPA	6	un registered														not available			15/12/2012	pempho sinkanda	the tank is for portable water used at the EPA office

CHAPTER 3 SEWAGE CONDITION SURVEY

		(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
Code	North/ Central/ South	No of Sewerages that exists in the cities/towns	Capacity of the sewer in the tanks available in the cities/towns (m3/day)	Number of people who are being serviced by the system against what population? (p)	Charges imposed on the sewer users (MK/ installation)	Methods of treating the sewer	Challenges that are being faces with the sewer system	Disposal of the wastes (what happens with the sewer)	Quality of treated sewer	Usage of the treated sewer	Are there plans to extend the sewer lines	If not serviced by the sewer line, what are the other methods that are being used both in town and the rural areas	Health related diseases that come due to sewer problems both in town and local villages
SS/BT/01	Blantyre	4	5,400	188,336	15,000.00	sieving , sedimentation, cycloning, water purification, purification ponds,final effluent	<ul style="list-style-type: none"> • Inadequate finances • Lack of protective clothing to the workers • Lack of adequate working materials like slashes and cleaning material • Lack of office essentials like a telephone line 	they have a disposal pit within their location where they dispose	it is disposed in the near river	left for people to collect	yes they are maintaing the other treatment places to increase their catchment area	they use private septic tanks and pit latrines	their lab is not well equipped to test and check disease I the area
SS/LL/01	Central	2	6,100	52,767	6,000.00	1st distribution chamber, 2. Partial flow chamber 2. The anaerobic tank, Facultative and sedimentation tanks, purification ponds	<ul style="list-style-type: none"> • People deliberately damaging the sewerage with things like blockage • Storage of pipes and manhole covers • Security and safety of people, as some people are killed and hid in the main pipes, and also uncovered places increase the risks of accidents. 	they have a disposal pit within their location where they dispose	after the water is treated it is disposed in the nearby llongwe river	the sludge is collected by people in the nearby to apply in the nearby field	yes to include the other areas in the city not connected to the sewer line	they use private septic tanks and pit latrines	<ul style="list-style-type: none"> • Cholera and Malaria are common in the rainy season • Flue and Malaria in the dry season • Tuberculosis is available throughout the year
SS/ZA/01	South	1	5,100	35,627	1,000.00	drit chamber, par screen removal, tunnels, bar screen 2, primary clarifiers, dozing chamber, water purification, recycling pump, purification ponds	<ul style="list-style-type: none"> • Security, Ageing of the structure, Urgent need of maintenance of the ponds due to sedimentation and weeds, Theft of main hole covers in the city, Security of the system as people deliberately broke the network pipes 	they have a disposal pit within their location where they dispose	after the water is treated it is disposed in the nearby llongwe river	after the sludge is dried it is left for collection by the nearby communities	they could not tell since they are restricted by funds	they use private septic tanks and pit latrines	Due to financial constraints their laboratory is not working

CHAPTER 4 SOCIO-ECONOMIC SURVEY

Village Code	Name of Vge	WRA	Location								Population						Scale/Mode of farming					Farm Land/Farmer			
			District	EPA	Accessibility	Topo. Map (1 in 50,000)	GPS (Coordinates)			Village Population			Head of Farmer Family			Large irrig. (ha)	Medium irrig. (ha)	Small irrig. (ha)	Mini scale irrig. (ha)	Others (Specify)	Farm Land (ha)		Farm Land (ha)		
							Easting	Northing	Altitude (m)	Location of Coordinates		Whole Vge (Families)	Avg family members	Total Village Population	Farmer Families						Male	Female		Total Farm Land (ha)	Rain-Fed Land (ha)
										Vge entrance	Vge centre														
SOC/MWZ/02	DICKSON	1	MWANZA	mwanza	1	Impossible	656973	8289664	938		1	160	7	1120	160	125	35			12		140	128	12	
SOC/NS/02	NYAMULA	1	NSANJE	tethani	2	Impossible	743430	8141335	65		1	548	4	2192	528	493	35			23		197	170	27	
SOC/PE/03	NKHULAMBE	14	PHALOMBE	nkhulambe	1	Impossible	794701	8244763	728		1	520	6	3120	520	370	150			12		208	195	13	
SOC/ZA/1	RAMUSI 1	2	ZOMBA	likangala	2	Done	773139	8292381	641	1		150	5	750	150	120	30			9		79	70	9	
SOC/BT/01	MASAMBA	14	BLANTYRE	chipande	2	Impossible	728164	8281641	797		1	35	7	250	33	29	4			11.5		33.5	22	11.5	
SOC/BT/02	MALOYA	14	BLANTYRE	chipande	2	Impossible	727598	8279955	795		1	150	9	1350	150	134	16			22		108	86	22	
SOC/MWZ/01	AMOS	1	MWANZA	mwanza	2	Impossible	659341	8292252	1062		1	108	7	825	80	28	52			15		150	135	15	
SOC/PE/02	HORO	14	PHALOMBE	Kasongo	1	Impossible	784091	8263519	742	1		392	5	1960	224	156	68								
SOC/PE/01	MISOMALI	14	PHALOMBE	nkhulambe	1	Impossible	795025	8247799	742	1		78	8	750	78	59	19			8		110	102	8	
SOC/TO/02	NKOLOKOSA	14	THYOLO	thyolo c	2	Impossible	727796	8215368	783	1		881	6	2889	881	521	360			33		240	207	33	
SOC/TO/01	MULEVISA	14	THYOLO	matapwata	1	Impossible	740277	8235081	761		1	70	5	350	70	60	10			3.2		136.8	133.6	3.2	
SOC/CK/03	MAFUMBE	1	CHIKHWAWA	limvuzu	1	Impossible	704574	8218935	97	1		300	6	1800		210	90			10.5		250.5	240	10.5	
SOC/CK/02	DZIPHUTSI	1	CHIKHWAWA	limvuzu	2	Impossible	700792	8221505	134	1		117	7	819	115	93	19			11		44	33	11	
SOC/CK/01	KWATAINE	1	CHIKHWAWA	limvuzu	1	Impossible	702692	8219827	90		1	450	7	3150	450	360	90			48		99	51	48	
SOC/MJ/02	MWANAMVULA	14	MULANJE	mulanje	1	Impossible	764626	8231376	649	1		650	7	4550	620	586	8			36.8		36.8	32	4.8	
SCO/MJ/01	NAMWERA	14	MULANJE	milonde	1	Impossible	797150	8223189	680	1		885	7	6195	885	664	221			12		35.4	23.4	12	
SOC/NS/01	CHINGWE	1	NSANJE	zunde	1	Impossible	741501	8130331	86	1		300	7	2100	300	250	50			5.4		35.4	30	5.4	
SOC/SA/04	NYANGULU	6	SALIMA	matenje	1	Done	650689	8503340	480	1		500	7	3500	2500	1800	700			5		100	95	5	
SOC/SA/03	NYANGULU	6	SALIMA	matenje	2	Done	649985	8503475	478		1	624	5	3000	580	298	282			6.5		140	3.5	6.5	
SOC/SA/02	KATUMBA	6	SALIMA		1	Impossible	656027	8468246	541	1		2202	6	13212	2202	1750	452			15		279	264	15	
SOC/SA/01	KAMBWILISELE	6	SALIMA		1	Impossible	650164	8478524	552		1	460	8	3680	460	300	160			6.6		926.6	920	6.6	

CHAPTER 4 SOCIO-ECONOMIC SURVEY

Village Code	Name of Vge	WRA	Farm Land/Farmer										Major Farm Products / Acreage & Cultivation Period														
			Owned Land			Tenant Farmers			Irrig. Land Farmer			Irrigation area				Rainy season			Maize			Rice (Paddy)			Tobacco		
			Owned Land Farmers (families)	family head (male)	family head (female)	Tenant Farmer (families)	family head (male)	family head (female)	Irrig. Land Farmer (families)	family head (male)	family head (female)	Maize; Rice; Tobacco	Cotton; Wheat; Coffee	Sugarcane; Tea; Groundnut	Cassava; Sunflower; Vegetable;	Beans; Soyabeans; Sweet potato; Irish potato	Others [specify]	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	
SOC/MWZ/02	DICKSON	1	160	125	35				80	75	5	Maize				12	nov-april	65									
SOC/NS/02	NYAMULA	1	530	500	30	15	5	10	155	74	81	Rice			Cassava	Beans	vegetables, finger millet, sorghum, chitowe		7	feb-may	200						
SOC/PE/03	NKHULAMBE	14	550	270	280	70	60	10	85	30	55	Maize				Sweet potato	rice, beans		10.2	nov-march	20						
SOC/ZA/1	RAMUSI 1	2	150	120	30	7	5	2	75	45	30	Maize, rice			cassava		pigeon peas					22	dec-june	195			
SOC/BT/01	MASAMBA	14	35	31	4				33	29	4	maize,			cassava	Sweet potatoes, irish potatoes	vegetable,		9.5	dec-april	55						
SOC/BT/02	MALOYA	14	150	5	145				75	35	40	maize, tobacco			cassava,vegetables	sweet potatoes, irish potatoes	pigeon peas,		10	dec-april	60						
SOC/MWZ/01	AMOS	1	108	27	81				30	5	25	maize,				sweet potatoes, beans, irish potatoes,											
SOC/PE/02	HORO	14	224	156	68				240	84	156	maize, tobacco			vegetables		Pigeon peas, sorgum										
SOC/PE/01	MISOMALI	14	65	51	14	13	8	5	65	51	14	maize		groundnuts	cassava, vegetables		pigeon peas		6.5	dec-april	20						
SOC/TO/02	NKOLOKOSA	14	600	150	450	281	81	200	240	150	90	maize		groundnuts	cassava	bean	pigeon peas		10	nov-april	35						
SOC/TO/01	MULEVISA	14	68	58	10	2	2	0	20	15	5	maize			vegetables		tomatoes		3.2	dec-april	35						
SOC/CK/03	MAFUMBE	1	242	130	112	15	10	5	60	20	40	maize	cotton						10.5	dec-april	60						
SOC/CK/02	DZIPHUTSI	1	100	49	51	15	10	5	102	49	53	maize	cotton	groundnuts					9	nov-april	50						
SOC/CK/01	KWATAINE	1	410	325	85	40	35	5	130	90	40	maize, rice	cotton		cassava, vegetables	beans,			40	nov-march	20						
SOC/MJ/02	MWANAMVULA	14	612	600	12	8	8	0	74	18	56	maize		groundnuts			pigeon peas		4.8	nov-march	32						
SCO/MJ/01	NAMWERA	14	700	476	224	185	101	84	150	100	30	maize			vegetables	soya beans, beans	pigeon peas		4	nov-april	30						
SOC/NS/01	CHINGWE	1	300	250	50				65	55	10	maize, rice				beans						5.4	dec-june	125			
SOC/SA/04	NYANGULU	6	104	54	50				64	26	38	maize, tobacco	cotton	groundnuts	vegetables				4.5	nov-april	30						
SOC/SA/03	NYANGULU	6	364	270	94				56	42	14	maize	cotton		vegetables, cassava	soya bean,	paprika		3.5	nov-march	25			7	dec-apr	400	
SOC/SA/02	KATUMBA	6	407	234	173	44	24	20	140	56	84	maize	cotton	groundnuts					1	dec-april	55						
SOC/SA/01	KAMBWILISELE	6	684	375	309	230	145	85	98	44	54	maize				sweet potatoes			1.6	dec-april	35						

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Village Code	Name of Vge	WRA	Major Farm Products / Acreage & Cultivation Period																					
			Rainy season																					
			Sweet Potato			Soya Beans			Beans			G'nuts (shelled)			Cassava			Pigeon Peas			Vegetables		Vegetables	
			ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	
SOC/MWZ/02	DICKSON	1																						
SOC/NS/02	NYAMULA	1																						
SOC/PE/03	NKHULAMBE	14	0.8	jan-may	100				2	dec-march	100													
SOC/ZA/1	RAMUSI 1	2																						
SOC/BT/01	MASAMBA	14	2	jan-april	100																			
SOC/BT/02	MALOYA	14																						
SOC/MWZ/01	AMOS	1																						
SOC/PE/02	HORO	14																						
SOC/PE/01	MISOMALI	14												1.5	dec-jun	200								
SOC/TO/02	NKOLOKOSA	14										24	nov-may	230										
SOC/TO/01	MULEVISA	14																						
SOC/CK/03	MAFUMBE	1																						
SOC/CK/02	DZIPHUTSI	1											2	nov-may	150									
SOC/CK/01	KWATAINE	1																						
SOC/MJ/02	MWANAMVULA	14																						
SCO/MJ/01	NAMWERA	14				5	nov-march	200									1	nov-march	100					
SOC/NS/01	CHINGWE	1																						
SOC/SA/04	NYANGULU	6																						
SOC/SA/03	NYANGULU	6																						
SOC/SA/02	KATUMBA	6																						
SOC/SA/01	KAMBWILISELE	6	0.825	dec-may	30																			

CHAPTER 4 SOCIO-ECONOMIC SURVEY

Village Code	Name of Vge	WRA	Major Farm Products / Acreage & Cultivation Period																										
			Rainy season						Dry Season																				
			Irish Potatoes			Other			Maize			Rice			Sweet Potato			Soya Beans			Beans			G/nuts		G/nuts			
			ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg
SOC/MWZ/02	DICKSON	1							12	jun-nov	75																		
SOC/NS/02	NYAMULA	1							19	may-sept	30													2	may-july	250			
SOC/PE/03	NKHULAMBE	14							11	may-sept	40														2	may-july	250		
SOC/ZA/1	RAMUSI 1	2																											
SOC/BT/01	MASAMBA	14							9.5	aug-nov	55															1	jun-oct	240	
SOC/BT/02	MALOYA	14							18	march-june	100														1	march-may	250		
SOC/MWZ/01	AMOS	1							10	aug-nov	50																		
SOC/PE/02	HORO	14																											
SOC/PE/01	MISOMALI	14							6	march-june	60																		
SOC/TO/02	NKOLOKOSA	14							10	jun-oct	120														8	jun-aug	260		
SOC/TO/01	MULEVISA	14							3	april-jul	45																		
SOC/CK/03	MAFUMBE	1							10.5	April-nov	60																		
SOC/CK/02	DZIPHUTSI	1							9	april-jul	100																2	april-july	100
SOC/CK/01	KWATAINE	1							30	april-jul	100		1	march-nov	200		2	april-jul	200										
SOC/MJ/02	MWANAMVULA	14							4.8	june-oct	50																		
SCO/MJ/01	NAMWERA	14							8	april-july	50									5	april-july	200							
SOC/NS/01	CHINGWE	1							0.4	july-oct																			
SOC/SA/04	NYANGULU	6							5	april-nov	70																		
SOC/SA/03	NYANGULU	6							6.5	june-oct	45																		
SOC/SA/02	KATUMBA	6							1	may-nov	50																		
SOC/SA/01	KAMBWILISELE	6							1.4	june-augs	150						1.4	aug-nov	130										

CHAPTER 4 SOCIO-ECONOMIC SURVEY

Village Code	Name of Vge	WRA	Major Farm Products / Acreage & Cultivation Period																						
			Dry Season									Rain fed area:													
			Cassava			Pigeon Peas			Vegetables			Irish Potatoes			Other			Maize (ha)	Rice(ha)	Tobacco (ha)	Cotton (ha)	Coffee (ha)	Irish potato (ha)	Sweet potato (ha)	Cassava (ha)
			ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg								
SOC/MWZ/02	DICKSON	1														12									
SOC/NS/02	NYAMULA	1	1	may-nov	100				1	april-may	120					19	7							1	
SOC/PE/03	NKHULAMBE	14														100	90							3	
SOC/ZA/1	RAMUSI 1	2														90	22								
SOC/BT/01	MASAMBA	14							1	jun- aug	110	0.5	jun-sept	250		19								1	
SOC/BT/02	MALOYA	14							2	march-may	150					80		5				15	5	2.5	
SOC/MWZ/01	AMOS	1				2	oct-nov	200	2	march-june	110					80						15	5		
SOC/PE/02	HORO	14														85		15							
SOC/PE/01	MISOMALI	14							2	june- aug	130					98								2	
SOC/TO/02	NKOLOKOSA	14							5	june-july	110					120									
SOC/TO/01	MULEVISA	14							0.2	april-aug	100					113.6									
SOC/CK/03	MAFUMBE	1														150		100.5							
SOC/CK/02	DZIPHUTSI	1														15			15						
SOC/CK/01	KWATAINE	1							2	april-jun	80					16			34						
SOC/MJ/02	MWANAMVULA	14														28									
SCO/MJ/01	NAMWERA	14							1	sept-october	95					13.4									
SOC/NS/01	CHINGWE	1														1.5			0.5						
SOC/SA/04	NYANGULU	6							0.5																
SOC/SA/03	NYANGULU	6							1.5	july-oct	50					40			15						
SOC/SA/02	KATUMBA	6														880.8	88	22	880.8					40	
SOC/SA/01	KAMBWILISELE	6	0.33	aug-nov	95											552			552				0.9		

CHAPTER 4 SOCIO-ECONOMIC SURVEY

Village Code	Name of Vge	WRA	Major Farm Products / Acreage & Cultivation Period					Mode of Irrigation																		
			Rain fed area:					Irrig. Facility & water source					Reservoir and Catchment Information													
			Beans (ha)	Groundnut (ha)	Sunflower (ha)	vegetable (ha)	Others (ha) [specify]	Reservoir/Pond (River Name)	Intake weir (River Name)	Side intake (River Name)	Dugwell		Reservoir Catchment area (km2)	Reservoir/pond avg area (m2)	Reservoir/Pond Avg depth (m)	Intake weir/Intake Catchment Area (km2)	Reservoir/pond embankment type			Reservoir/Pond location						
											Average Size	Number of dug wells					Earth	Masonry	Others (specify)	Easting	Northing	Altitude (m)				
SOC/MWZ/02	DICKSON	1																								
SOC/NS/02	NYAMULA	1	2			1	finger millet, sorghum																			
SOC/PE/03	NKHULAMBE	14	2																							
SOC/ZA/1	RAMUSI 1	2					pigeon peas																			
SOC/BT/01	MASAMBA	14		2																						
SOC/BT/02	MALOYA	14	0.5																							
SOC/MWZ/01	AMOS	1	2			1	pigeon peas (10)																			
SOC/PE/02	HORO	14					pigeon peas (10), sorghum (6)																			
SOC/PE/01	MISOMALI	14		2																						
SOC/TO/02	NKOLOKOSA	14					the rest of the crops are grown by mixed farming (120)																			
SOC/TO/01	MULEVISA	14						mpasa																		
SOC/CK/03	MAFUMBE	1																								
SOC/CK/02	DZIPHUTSI	1		3				nkudzi					6		6									701422	8221482	97
SOC/CK/01	KWATAINE	1																								
SOC/MJ/02	MWANAMVULA	14		4																						
SCO/MJ/01	NAMWERA	14					pigion peas (10)							2.4	24	1.5	2	earth	masonry				797309	8223446	690	
SOC/NS/01	CHINGWE	1						shire																		
SOC/SA/04	NYANGULU	6						lake malawi																		
SOC/SA/03	NYANGULU	6						lake malawi																		
SOC/SA/02	KATUMBA	6		66																				656590	8466719	516
SOC/SA/01	KAMBWILISELE	6		92			pigion peas (0.9)																			

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Village Code	Name of Vge	WRA	Mode of Irrigation																							
			Gravity fed system											Motorised Pump System												
			Intake weir/Intake location			Intake weir/ Intake - type	Intake weir/ intake structure type			Main Canal total length (m)	material of the canal	Minimum cross section		Longitudinal gradient along the point (%)	Water rights	Annual payment (MK/year)	Water Source		Number of Pumps	Area irrig. (ha)	Monthly pumped water volume at critical time (m3/m/pump)	Water rights	Annual Payment (MK/Yr)			
			Easting	Northing	Altitude (m)		Permanent; Temporary	Concrete/Masonry ; Local materials	Others (specify)			Height (cm)	width (cm)				River; Lake/Pond	Others (Specify)								
SOC/MWZ/02	DICKSON	1							100	earth	15	30														
SOC/NS/02	NYAMULA	1																								
SOC/PE/03	NKHULAMBE	14							80	earth	25	55	0.2	registered	2000											
SOC/ZA/1	RAMUSI 1	2	773227	8292179	634	permanent	concrete		5000	concrete	16.1	49		registered												
SOC/BT/01	MASAMBA	14							350	earth		90														
SOC/BT/02	MALOYA	14							300	concrete	60	100		registered	3000											
SOC/MWZ/01	AMOS	1																								
SOC/PE/02	HORO	14																								
SOC/PE/01	MISOMALI	14							400	earth	50	30		registered	1000											
SOC/TO/02	NKOLOKOSA	14	727769	8215368	783			pvc pipes	1500	earth	200	500		unregister d												
SOC/TO/01	MULEVISA	14							150	concrete	45	51		unregister d		mpasa		3	3.2							
SOC/CK/03	MAFUMBE	1	704382	8219455	92			concrete	536	earth				unregister d												
SOC/CK/02	DZIPHUTSI	1							300	concrete	100	200		registered	2000											
SOC/CK/01	KWATAINE	1							626	concrete	70	150		registered	3000											
SOC/MJ/02	MWANAMVULA	14	764488	8232518	755			concrete																		
SCO/MJ/01	NAMWERA	14	797309	8223446	690			concrete	110	concrete	36	60		registered	2000											
SOC/NS/01	CHINGWE	1																								
SOC/SA/04	NYANGULU	6							200	brick lines				unregister d		lake malawi		2	5							
SOC/SA/03	NYANGULU	6								earth				unregister d		lake malawi			2	9.9	unregistered					
SOC/SA/02	KATUMBA	6							520	brick lines						submerged elec		1	2			registered				
SOC/SA/01	KAMBWILISELE	6	651003	8479012	494				400	concrete						submerged elec		1	3.3							

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Village Code	Name of Vge	WRA	Mode of Irrigation																	Market and Research					
			Treadle Pump System							Water Can System				General Association						How is market sourced		Distance to the Market (Km)	How do you sell your products		
			Water Source		Number of Pumps	Area irrig. (ha)	Monthly pumped water volume at critical time (m3/m/pump)	Water rights	Annual Payment (MK/Yr)	Water Source		Area irrig. (ha)	Water rights	Annual Payment (MK/Yr)	Availability of Farmers Associations	In case of 'Yes' Role of association	Membership		Annual membership fee of association (MK/yr)	Maintenance work for weir/canal	In case of yes days/month normally spend (days)			Individual/Middlemen; Association	Others (Specify)
			Well/groundwater; river/stream; Lake/pond	Other (specify)						Well/groundwater; river/stream; Lake/pond	Other (specify)						Male	Female							
SOC/MWZ/02	DICKSON	1												yes	the supervise water usage	5	5	500	yes	once a year	Individual				
SOC/NS/02	NYAMULA	1	shire river		50	27		no						None							Individual			5	
SOC/PE/03	NKHULAMBE	14												yes	the supervise water usage	5	3	200	yes	2		association/club			both
SOC/ZA/1	RAMUSI 1	2												yes	taking care of the canal and water usage	15	4	500	yes	3	both				both
SOC/BT/01	MASAMBA	14												none							individual			vendors	
SOC/BT/02	MALOYA	14								river	0.5	unregistered		yes	advice to fellow farmers on farming practice	6	4	700	none		individual				Individual;
SOC/MWZ/01	AMOS	1												none							individual/middle men				individually
SOC/PE/02	HORO	14																							
SOC/PE/01	MISOMALI	14												none							individual				individual
SOC/TO/02	NKOLOKOSA	14								river		2	unregistered	yes	selling crops	25	64	300	yes	1 day in three months					
SOC/TO/01	MULEVISA	14			1	0.2		unregistered		river		2	unregistered	none							individual				
SOC/CK/03	MAFUMBE	1												yes	to supervise water usage	4	6	1000	yes	2 times in a month					
SOC/CK/02	DZIPHUTSI	1												yes	allocation and distribution of water	6	5	800	none		individual				individual
SOC/CK/01	KWATAINE	1												yes	looking after the scheme	90	80	500	none		individual				individual/vendors
SOC/MJ/02	MWANAMVULA	14												none							individual				individual
SCO/MJ/01	NAMWERA	14								river			unregistered	yes	they regulate water supply	150	50	200	none		individual				individual/Vendors
SOC/NS/01	CHINGWE	1	river		20	5.4		unregistered						none							individual				individual/vendors
SOC/SA/04	NYANGULU	6												none							individual			6	individual/vendors
SOC/SA/03	NYANGULU	6												none							individual				individual/vendors
SOC/SA/02	KATUMBA	6												none							individual				individual/vendors
SOC/SA/01	KAMBWILISELE	6												none							individual				individual/vendors

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Village Code	Name of Vge	WRA	Market and Research							Issues			Authenticity							
			How do you find market for:							Matters of Farming	Matters of Livelihood	General	Main Interviewee		Interviewee		Interviewer		Witness	
			Maize	Rice	Tobacco	Cotton	Coffee	Sugarcane	Tea				Name	Occupation	Name	Occupation	Date	Name	Name	
SOC/MWZ/02	DICKSON	1	1							fertilizer is expensive, the association has no power to look for markets that makes individuals sell crops, the canals are not cemented which leads to siltation		pests and diseases on our crop	J. stafd	farmer			2012/12/10	Reuben	K. Nyengo	
SOC/NS/02	NYAMULA	1								there are few trede pumps against many irrigating farmers, rising costs of trede pump spares parts	those irrigating in the streams the water table is very low			baloni	farmer	August	chairman	16/10/2012	Twambie	K. Nyengo
SOC/PE/03	NKHULAMBE	14								lack of inputs, lack of enough water to irrigate, the canal is short		the canals were constructed and we need syphons	B. Makuta	farmer			2012/8/10	Reuben	K. Nyengo	
SOC/ZA/1	RAMUSI 1	2								low harvest in uplands due to erratic rains, un reliable market, high need for improved seed especially rice	poor hygnie as people use the scheme as toilets, contract disease like bilhazia when preparing their fields	this time the scheme is not in use as it is under rehabilitation	B. R Mphiya	block chairman	D. wadidi	block chairman	2012/6/10	charity	D. chiraya	
SOC/BT/01	MASAMBA	14	vendors							lack of fertilizer. High input prices, the pipes are not covered that makes them prone to breaking, there are no spare parts to replace the broken parts		the whole family prticipates in irrigation only that the village population was reduced because the area is in the boundary	madalitsa	farmer	chikondi	farmer	13/10/12	monica mwalwanda	K. Nyengo	
SOC/BT/02	MALOYA	14								the water table is very low after september that makes it hard t irrigate, the market price of crops is low as compared to the production cost, come canals need maintainace.	the road to the scheme is bad the that makes it hard to transport their produce to the markert, the farmers are also interested in animal farming			clifford nyala	chairman	patson chitchi	secretary	13/10/2012	Twambie	K. Nyengo
SOC/MWZ/01	AMOS	1								market prices are very low, there are no extension service		the fertilizer subsidy allocation is very low	K. F	farmer	Luta Mgogoo	farmer	2012/12/10	Twambie	k. Nyengo	
SOC/PE/02	HORO	14								the only relay on rainfed crop as there is np water and no irrigation scheme in the area	marketing of crops especially makerting tobacco is done through clubs	the village has not benefited from a lot of projects	Horo	village head				Twambie	K. Nyengo	
SOC/PE/01	MISOMALI	14								inadequate land to cultivate, inputs prices are high this eason, the intake weir has no outlet, that makes it not to keep enough water	vendors buy their produce at a very low price because of of lack of markets			tenthani	farmer	sayenda	farmer	2012/8/10	monica mwalwanda	K. Nyengo
SOC/TO/02	NKOLOKOSA	14								lack of inputs, and chemicals are not enough, the water washes,awat the fertilizer applied, the markets are very far, low prices at the market	lack of money, disease like HIV and aids are very common			F. nseula	farmer	GVH Nkolokosa	chief	2012/3/10	Twambie	K. Nyengo
SOC/TO/01	MULEVISA	14								irrigation is needed though upredictable climate	they depend of farming			reuben	farmer	Nsolera	farmer	2012/3/10	young	K. Nyengo
SOC/CK/03	MAFUMBE	1								the canal is made of earth, and the water drains quickly, they don't provide adequate water because they are not complete to reach every plot, deforestation leading to siltation, lack of good farming practices,		people have mould bricks to help in the construction of the canal	J. phiri	farmer			15/10/2012	Reuben	K. Nyengo	
SOC/CK/02	DZIPHUTSI	1								irrigation becomes a problem from august to october because the water table is low, rising cots of farming, the maize seed they receive delkalb 8033 does not do well in the area, they would like to tranfer the water intake from nkudzi rivewrt to shire which doe not dry up			chimphine	chairman	P. Bisalomi	farmer	15/10/2012	Twambie	K. Nyengo	
SOC/CK/01	KWATAINE	1								water shortage for irrigation as the water source is shared, no market to buy their inputs, they need a reservior to keep their water, the cotton variety given to grow is not a good one, wish to extend wtaer source to shire but they have no facilities like pipes			Zuze	secretary	clemence	V. chairman	15/10/2012	monica mwalwanda	K. Nyengo	
SOC/MJ/02	MWANAMVULA	14								rainfall affected their harvest, the irrigation water is not enough			M.Mukani	farmer	Mrs. Pasiya	farmer	2012/5/10	monica mwalwanda	K. Nyengo	
SCO/MJ/01	NAMWERA	14								the market price is low, the pipes are not enough and that makes water flow difficult		they sell at one place only at intervals	Patrick powder	farmer			2012/6/10	Reuben	K. Nyengo	
SOC/NS/01	CHINGWE	1								inadequate treddle pumps tha makes wate insufficient in the scheme, high price of fertilizer, lack of inputs like pesticides and sprayers			osman jasi	secretary	malita	farmer	16/10/2012	monica and young	K. Nyengo	
SOC/SA/04	NYANGULU	6								the water pump is down, the canals needs maintaince, lack of inputs		they need an organisation that can provide loans to use for the scheme service	winford	farmer	tauleta	farmer	17/10/2012	sunganani chiwala	Pempho	
SOC/SA/03	NYANGULU	6								lack of fertilizer and pesticides, the scheme needs a fance to protect it from animals, they need a reservoir to keep water from the lake, funds to buy fuel			harlod. Y	chairman	Enock	secretary	17/10/2012	c. siabu	Pempho	
SOC/SA/02	KATUMBA	6								lack of markets, they need a water tank, lack of inputs, pipes for irrigation are not enough		the questoner has been taken at a sample size of seven villages where members of the scheme come from	mercy	farmer	G. kambewa	farmer	17/10/2012	o. Marcello	D. Mwenechanya	
SOC/SA/01	KAMBWILISELE	6								the sale everything in the scheme, they have 15 siphons that pumps water to the main field		the scheme is composed by people from 15 villages in the same T/A	Fostella	farmer	Anjellina	farmer	17/10/2012	o. Marcello	D. Mwenechanya	

CHAPTER 4 SOCIO-ECONOMIC SURVEY

Village Code	Name of Vge	WRA	Location								Population						Scale/Mode of farming					Farm Land/Farmer			
			District	EPA	Accessibility	Topo. Map (1 in 50,000)	GPS (Coordinates)			Village Population			Head of Farmer Family			Large irrig. (ha)	Medium irrig. (ha)	Small irrig. (ha)	Mini scale irrig. (ha)	Others (Specify)	Farm Land (ha)		Farm Land (ha)		
							Easting	Northing	Altitude (m)	Location of Coordinates		Whole Vge (Families)	Avg family members	Total Village Population	Farmer Families						Male	Female		Total Farm Land (ha)	Rain-Fed Land (ha)
										Vge entrance	Vge centre														
SOC/NU/02	CHAPITA	1	NTCHEU	njolomole	1	Impossible	654191	8404232	1510	1		460	6	3680	428	415	45				8		12	4	8
SOC/NU/01	DAVITE	1	NTCHEU	tsangano	3	Impossible	676221	8350930	1132		1	78	6	468	78	72	6		50				80	50	30
SOC/DZ/03	KUMPHIRA	3	DEDZA	kanyama	1	Done	640141	8427631	1503	1		306	8	2448	306	106	200		52				344	302	42
SOC/DZ/02	KASANKHA	3	DEDZA	kanyama	3	Done	643288	8424656	1580	1		300	10	3000	295	295	0			12			1600	1588	12
SOC/DZ/01	KACHINDAMOT	3	DEDZA	golomoti	2	Done	666783	8421135	531		1	2520	8	20160	2520	1400	1120	800					3600	2800	800
SOC/LL/05	KUDZODZI	4	LILONGWE	Kwenda	2	Done	579119	8431741	1136	1		39	6	300	39	31	8			39			78	50	28
SOC/LL/04	CHALA	4	LILONGWE	mpingu	1	Impossible	569637	8442323	1136	1		150	9	1350	150	80	140			30			660	630	30
SCO/LL/03	POJOKAISI	4	LILONGWE		1	Impossible	562161	8436075	1151	1		58	6	348	58	38	20				5		58	53	5
SOC/LL/02	MVUWA	4	LILONGWE	Mpenu	1	Done					1	236	8	1094	200	100	100		85				1766	1671	95
SCO/LL/01	MSAKO	4	LILONGWE	chitekwere	2	Impossible	608820	8406166	1143	1		120	12	1440	110	51	59			25			28	3	25
SOC/NC/02	NTANGA	15	NTCHISI	kalira	2	Impossible	606412	8520084	1406		1	170	9	1530	170	150	20			13.5			254.5	241	13.5
SOC/NC/01	CHIPELESA	15	NTCHISI		2	Impossible	590734	8554867	1108	1		30	4	120	30	19	11			40			76	36	40
SOC/DA/03	CHIMWENDO	15	DOWA	madisi	1	Impossible	559362	8518537	1094		1	250	5	1250	190	150	40			2.5			154.5	152	2.5
SOC/DA/02	JONAS	15	DOWA	naluga	1	Impossible	609756	8496422	1035	1		150	4	600	150	136	14			7.6			187.6	180	7.6
SOC/DA/01	CHIMUNGU	15	DOWA	doka	1	Done	579210	8512202	1233	1		42	3	150	42	28	14			3.5			53.9	50.4	3.5
SOC/MC/03	KACHAMBA	6	MCHINJI	mikundi	1	Impossible	504539	8480475	1106	1		606	6	2800	606	566	40	121					606	484.8	121.2
SOC/MC/02	KALULU	6	MCHINJI	kalulu	1	Impossible	502331	8494776	1096	1		251	6	1506	251	241	10			2.5			404.1	401.6	2.5
SOC/MC/01	JONI	5	MCHINJI	mkanda	1	Impossible	491234	8492705	1081	1		250	5	1250	250	240	10			50			150	100	50
SOC/KU/05	KANYENDA	6	KASUNGU	Chipala	1	Done	550875	8576162	1094	1		66	9	564	66	56	10			9.5			67	57.5	9.5
SOC/KU/04	KANSIMJENI	6	KASUNGU	chipala	1	Done	549488	8575534	893	1		40	4	84	39	31	9			15.6			46.8	31.2	15.6
SOC/KU/03	CHISANU	6	KASUNGU	chulu	1	Done	538197	8575939	1021	1		48	7	336	48	28	20			6			60	54	6
SOC/KU/02	MBILA	6	KASUNGU	chipala	1	Done	552151	8563716	1057		1	180	5	900	180	170	10			15			158.8	143.8	15
SOC/KU/01	CHIOZA	6	KASUNGU	chulu	1	Done	535271	8576863	1047	1		276	4	2195	276	256	20			12			232.8	220.8	12
SOC/KA/03	MWANJASI	17	KARONGA	kaporo sout	1	Impossible	595706	8916480	497		1	1092	7	7644	1092	475	617	133					657	524	133

CHAPTER 4 SOCIO-ECONOMIC SURVEY

Village Code	Name of Vge	WRA	Farm Land/Farmer															Major Farm Products / Acreage & Cultivation Period										
			Owned Land			Tenant Farmers			Irrig. Land Farmer			Irrigation area						Rainy season										
			Owned Land Farmers (families)	family head (male)	family head (female)	Tenant Farmer (families)	family head (male)	family head (female)	Irrig. Land Farmer (families)	family head (male)	family head (female)	Maize; Rice; Tobacco	Cotton; Wheat; Coffee	Sugarcane; Tea; Groundnut	Cassava; Sunflower; Vegetable;	Beans; Soybeans; Sweet potato; Irish potato	Others [specify]	Maize			Rice (Paddy)			Tobacco				
																		ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg		
SOC/NU/02	CHAPITA	1	30	9	21				43	9	23	maize		sugarcane	vegetables	irish potatoes, beans	paprika, soya	12	nov-march	40								
SOC/NU/01	DAVITE	1	78	72	6	20	16	4	14	14	0	maize				beans, irish potatoes		50	nov-april	36								
SOC/DZ/03	KUMPHIRA	3	240	142	98				306	200	106	maize			vegetables	irish potatoes		100	nov-april	40								
SOC/DZ/02	KASANKHA	3	169	102	67				324	204	120	maize			vegetables	irish potatoes	peas	600	dec-june	50								
SOC/DZ/01	KACHINDAMOTI	3	2067	989	1078				2067	989	1078	maize, rice,				beans, soya beans, sweet potatoes	paprika				800	dec-june	220					
SOC/LL/05	KUDZODZI	4	39	31	8				39	31	8	maize, tobacco		groundnuts	vegetables, cassava	sweet potatoes, soya beans,		10	nov-march	70	70	nov-may	250	10	dec-april	300		
SOC/LL/04	CHALA	4	220	80	140				87	35	52	maize, tobacco		groundnuts	vegetables	soya beans, beans,		10	dec-april	60								
SCO/LL/03	POJOKAISI	4	18	10	8				16	9	7	maize,			vegetables	beans												
SOC/LL/02	MVUWA	4	710	309	401				248	147	101	maize, tobacco			vegetables			1.5	nov-april	40				5	nov-march	300		
SCO/LL/01	MSAKO	4	603	305	298				317	107	210	maize, tobacco		groundnuts		soya, groundnuts	pegeion peas	0.5	nov-May	35				0.5	nov-march	120		
SOC/NC/02	NTANGA	15	162	122	40	8	8	0	50	24	26	maize		groundnuts	vegetables	sweet potatoes, soya beans, irsh potatoes		6	dec-april	40								
SOC/NC/01	CHIPELESA	15	30	19	11				22	7	15	maize, tobacco		groundnuts	vegetables			40	dec-may	60								
SOC/DA/03	CHIMWENDO	15	190	150	40				103	49	54	maize, tobacco		groundnuts		sweet potatoes, soya beans,		2	dec-april	50								
SOC/DA/02	JONAS	15	150	136	14				131	95	36	maize,		groundnuts		beans		0.4	dec-may	45								
SOC/DA/01	CHIMUNGU	15	42	28	14				18	9	9	maize, tobacco		groundnuts	vegetables	sweet potatoes, soya beans		2.6	dec-april	40								
SOC/MC/03	KACHAMBA	6	606	590	16				329	187	142	maize		groundnuts	vegetables	sweet potatoes	soyabean	6	july-oct	45								
SOC/MC/02	KALULU	6	251	241	10				178	97	81	maize, tobacco		groundnuts	vegetables	sweet potatoes, beans		1	dec-may	45								
SOC/MC/01	JONI	5	165	149	16	100	91	9	104	66	38	maize		groundnuts	vegetables													
SOC/KU/05	KANYENDA	6	65	56	9				50	40	10	maize			vegetables	soyabean		7	dec-march	40								
SOC/KU/04	KANSIMJENI	6	53	19	34				41	19	22	maize			vegetables	soyabean, sweet potatoes	pigeon peas	0.4	dec-may	50								
SOC/KU/03	CHISANU	6	47	28	19				21	19	2	maize, tobacco	cotton,	groundnuts	vegetables, sunflower	irish potatoes	pigeon peas, ground beans	0.2	jan-april	40								
SOC/KU/02	MBILA	6	180	170	10	10	5	5	142	88	54	maize, tobacco		groundnuts	vegetables	sweet potatoes, soya beans, beans												
SOC/KU/01	CHIOZA	6	276	256	20	232.8	220.8	12	276	256	20	maize	cotton	groundnuts	vegetables	sweet potatoes, beans												
SOC/KA/03	MWANJASI	17	566	331	235				241	134	107	rice									131	dec-may	143					

CHAPTER 4 SOCIO-ECONOMIC SURVEY

Village Code	Name of Vge	WRA	Major Farm Products / Acreage & Cultivation Period																							
			Rainy season																							
			Sweet Potato			Soya Beans			Beans			G'nuts (shelled)			Cassava			Pigeon Peas			Vegetables			Vegetables		
			ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg
SOC/NU/02	CHAPITA	1							10	dec-apr	200															
SOC/NU/01	DAVITE	1				10	nov-april	150																		
SOC/DZ/03	KUMPHIRA	3																								
SOC/DZ/02	KASANKHA	3																								
SOC/DZ/01	KACHINDAMOT	3																								
SOC/LL/05	KUDZODZI	4				8	dec-march	100	2	jan-march	200															
SOC/LL/04	CHALA	4							2	dec-may	195															
SCO/LL/03	POJOKAISI	4																								
SOC/LL/02	MVUWA	4																								
SCO/LL/01	MSAKO	4	0.5	dec-march	50							0.5	nov-may	240												
SOC/NC/02	NTANGA	15	0.5	july-oct	30	0.25	dec-april	170	1	dec-april	225	0.5	dec-april	150												
SOC/NC/01	CHIPELESA	15				2	dec-june	160	2	dec-march	160															
SOC/DA/03	CHIMWENDO	15							0.5	dec-march	250															
SOC/DA/02	JONAS	15				0.4	dec-may	150	0.2	dec-march	220	0.2	dec-may	170												
SOC/DA/01	CHIMUNGU	15																								
SOC/MC/03	KACHAMBA	6	2	feb-sep	20				1	april-july	300															
SOC/MC/02	KALULU	6																								
SOC/MC/01	JONI	5																								
SOC/KU/05	KANYENDA	6																								
SOC/KU/04	KANSIMJENI	6				0.1	dec- april	250									0.1	july-sept	100							
SOC/KU/03	CHISANU	6																			0.1	dec-mar	50			
SOC/KU/02	MBILA	6																								
SOC/KU/01	CHIOZA	6																								
SOC/KA/03	MWANJASI	17																								

CHAPTER 4 SOCIO-ECONOMIC SURVEY

Village Code	Name of Vge	WRA	Major Farm Products / Acreage & Cultivation Period																								
			Rainy season						Dry Season																		
			Irish Potatoes			Other			Maize			Rice			Sweet Potato			Soya Beans			Beans			G'nuts		G'nuts	
			ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	
SOC/NU/02	CHAPITA	1	4	nov-may	175				12	august-dec	40																
SOC/NU/01	DAVITE	1	20	dec-march	200				15	august-dec	50																
SOC/DZ/03	KUMPHIRA	3	200	nov-may	150																						
SOC/DZ/02	KASANKHA	3	600	nov-may	200																						
SOC/DZ/01	KACHINDAMOT	3							250	may-oct	50				2	apr-aug	100	2	may-sept	300	4	June-nov	225				
SOC/LL/05	KUDZODZI	4							20	jun-oct	90																
SOC/LL/04	CHALA	4							15	June-dec	75																
SCO/LL/03	POJOKAISI	4							5	april-novemb	30																
SOC/LL/02	MVUWA	4																									
SCO/LL/01	MSAKO	4							0.5	august-nov	70																
SOC/NC/02	NTANGA	15	6	sept-dec	190									0.5	july-oct	100				1	april-aug	225					
SOC/NC/01	CHIPELESA	15							8	july-oct	45									1	july-oct	200					
SOC/DA/03	CHIMWENDO	15							2	June-sept	45									0.42	June-sept	300					
SOC/DA/02	JONAS	15							7.5	july-oct	50																
SOC/DA/01	CHIMUNGU	15							2.6	july-sept	50																
SOC/MC/03	KACHAMBA	6							6	july-oct	45				2	may-sept	150				1	april-july	300				
SOC/MC/02	KALULU	6							0.6	july-sept	45									1	may-june	300					
SOC/MC/01	JONI	5							0.2	july-sept	45																
SOC/KU/05	KANYENDA	6							7	april-nov	100																
SOC/KU/04	KANSIMJENI	6							0.1	july-sept	100																
SOC/KU/03	CHISANU	6							0.2	april-july	65						0.2	apr-aug	250								
SOC/KU/02	MBILA	6																									
SOC/KU/01	CHIOZA	6							20	july-sept	45									0.8	july-sept	200					
SOC/KA/03	MWANJASI	17										131	july-dec	250													

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Village Code	Name of Vge	WRA	Major Farm Products / Acreage & Cultivation Period																						
			Dry Season									Rain fed area:													
			Cassava			Pigeon Peas			Vegetables			Irish Potatoes			Other			Maize (ha)	Rice(ha)	Tobacco (ha)	Cotton (ha)	Coffee (ha)	Irish potato (ha)	Sweet potato (ha)	Cassava (ha)
			ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg								
SOC/NU/02	CHAPITA	1															12					9			
SOC/NU/01	DAVITE	1										15	June-oct	200											
SOC/DZ/03	KUMPHIRA	3							54	Mar-nov	85	42	June-oct	150			100								
SOC/DZ/02	KASANKHA	3							3	Apr-aug	100	60	April-July	200			600					600			
SOC/DZ/01	KACHINDAMOT	3															800								
SOC/LL/05	KUDZODZI	4															10		10						
SOC/LL/04	CHALA	4							5	June-oct	140						400		40				30		
SCO/LL/03	POJOKAISI	4															50								
SOC/LL/02	MVUWA	4															1.5	April-nov							
SCO/LL/01	MSAKO	4															50		10				5		
SOC/NC/02	NTANGA	15	0.25	May-nov	140				1	April-sept	80						100					9	8		
SOC/NC/01	CHIPELESA	15							3	July-aug	140						24		1				12		
SOC/DA/03	CHIMWENDO	15															78								
SOC/DA/02	JONAS	15															60								
SOC/DA/01	CHIMUNGU	15							0.42	July-aug	180						12.8		12.8				6.4		
SOC/MC/03	KACHAMBA	6															242.4						121.2		
SOC/MC/02	KALULU	6															200.8		12						
SOC/MC/01	JONI	5															45								
SOC/KU/05	KANYENDA	6							2.5	March-nov	200						40		12			6	10		
SOC/KU/04	KANSIMJENI	6							0.1	July-aug	150						15.6								
SOC/KU/03	CHISANU	6				0.2	Mar-July	220	0.1								8		0.6	2			0.01	1	
SOC/KU/02	MBILA	6							0.2	April-June	75						7.2		2				0.4		
SOC/KU/01	CHIOZA	6							1	July-aug	250						96								
SOC/KA/03	MWANJASI	17																524							

CHAPTER 4 SOCIO-ECONOMIC SURVEY

Village Code	Name of Vge	WRA	Major Farm Products / Acreage & Cultivation Period					Mode of Irrigation													
			Rain fed area:					Irrig. Facility & water source					Reservoir and Catchment Information								
			Beans (ha)	Groundnut (ha)	Sunflower (ha)	vegetable (ha)	Others (ha) [specify]	Reservoir/Pond (River Name)	Intake weir (River Name)	Side intake (River Name)	Dugwell		Reservoir Catchment area (km2)	Reservoir/pond avg area (m2)	Reservoir/Pond Avg depth (m)	Intake weir/ Intake Catchment Area (km2)	Reservoir/pond embankment type			Reservoir/Pond location	
								Average Size	Number of dug wells					Earth	Masonry	Others (specify)	Easting	Northing	Altitude (m)		
SOC/NU/02	CHAPITA	1	12					gala	gala		Diam 1.2m	28	1088		10				654191	8404232	1510
SOC/NU/01	DAVITE	1							livivi				20			2					
SOC/DZ/03	KUMPHIRA	3	42					windu	windu							earth			671976	8411818	1470
SOC/DZ/02	KASANKHA	3				3	peas	makemba													
SOC/DZ/01	KACHINDAMOTI	3						nankokwe	nankokwe												
SOC/LL/05	KUDZODZI	4	2					Mnale		mnale			60	26500	5	earth			579610	8431447	1138
SOC/LL/04	CHALA	4							muwowa/chala							earth			569319	8442922	1122
SOC/LL/03	POJOKAISI	4						phangwe					60	16600	6	earth			562161	8436075	1151
SOC/LL/02	MVUWA	4						chinkilumame	chinkilumame		Diam 1.3m	6	2.3	240	0.8	earth					
SOC/LL/01	MSAKO	4		5			groundnuts(20)	ukonde		ukonde			40	26250	2	earth					
SOC/NC/02	NTANGA	15	17			16		dwazi		dwazi									606918	8520440	1265
SOC/NC/01	CHIPELESA	15	3	8		3		chilanga mwali													
SOC/DA/03	CHIMWENDO	15	3	76							Diam 1.1m	5									
SOC/DA/02	JONAS	15	30	30			soya (60)			katete											
SOC/DA/01	CHIMUNGU	15		6.4					chawawa										579303	8512169	1217
SOC/MC/03	KACHAMBA	6	121	121							2M deep	500									
SOC/MC/02	KALULU	6		25		25.1	groundnuts(100.4)	lusa													
SOC/MC/01	JONI	5		15						matizi											
SOC/KU/05	KANYENDA	6		4		3	chillies (2)			dwangwa											
SOC/KU/04	KANSIMJENI	6	9	4			pigeon peas(3,9)	dwangwa													
SOC/KU/03	CHISANU	6		5																	
SOC/KU/02	MBILA	6		6																	
SOC/KU/01	CHIOZA	6	30	25		5	paprika (0.1)			chisuwe											
SOC/KA/03	MWANJASI	17																	589206	8916577	497

CHAPTER 4 SOCIO-ECONOMIC SURVEY

Village Code	Name of Vge	WRA	Mode of Irrigation																					
			Gravity fed system											Motorised Pump System										
			Intake weir/Intake location			Intake weir/ Intake - type	Intake weir/ intake structure type			Main Canal total length (m)	material of the canal	Minimum cross section		Longitudinal gradient along the point (%)	Water rights	Annual payment (MK/year)	Water Source		Number of Pumps	Area irrig. (ha)	Monthly pumped water volume at critical time (m3/m/pump)	Water rights	Annual Payment (MK/Yr)	
			Easting	Northing	Altitude (m)	Permanent/ Temporary	Concrete/Masonry ; Local materials	Others (specify)	Height (cm)			width (cm)	River; Lake/Pond				Others (Specify)							
SOC/NU/02	CHAPITA	1							1000	earth	30	30		unregister d										
SOC/NU/01	DAVITE	1	676221	8350930	1132	permanent	local material		3000	earth				unregister d										
SOC/DZ/03	KUMPHIRA	3	640373	8428223	1464	permanent	concrete			concrete	120	60		registered	1500	windu		7	42		registered		1500	
SOC/DZ/02	KASANKHA	3																						
SOC/DZ/01	KACHINDAMOT	3	666682	8420943	528	permanent	concrete		2000	concrete			1.14	registered	2000									
SOC/LL/05	KUDZODZI	4														mnale		1	2					
SOC/LL/04	CHALA	4																						
SOC/LL/03	POJOKAISI	4																						
SOC/LL/02	MVUWA	4												registered	2000									
SOC/LL/01	MSAKO	4														ukonde		1	3		unregister ed			
SOC/NC/02	NTANGA	15				permanent			3700	earth														
SOC/NC/01	CHIPELESA	15														chisuwe		3	12		registered		3000	
SOC/DA/03	CHIMWENDO	15																						
SOC/DA/02	JONAS	15	609274	8497296	1090	temporary			3000	earth	500	1000		unregister d										
SOC/DA/01	CHIMUNGU	15														chawawa river		1	1.4					
SOC/MC/03	KACHAMBA	6																						
SOC/MC/02	KALULU	6														river		1	1					
SOC/MC/01	JONI	5														matizi river		1	1.4		unregister ed			
SOC/KU/05	KANYENDA	6														dwangwa		3	9.5		registered		3000	
SOC/KU/04	KANSIMJENI	6														dwangwa		3	11					
SOC/KU/03	CHISANU	6																						
SOC/KU/02	MBILA	6																						
SOC/KU/01	CHIOZA	6														chisuwe		4	12		registered		3000	
SOC/KA/03	MWANJASI	17																						

CHAPTER 4 SOCIO-ECONOMIC SURVEY

Village Code	Name of Vge	WRA	Mode of Irrigation																	Market and Research					
			Treadle Pump System							Water Can System				General Association						How is market sourced		Distance to the Market (Km)	How do you sell your products		
			Water Source		Number of Pumps	Area irrig. (ha)	Monthly pumped water volume at critical time (m3/m/pump)	Water rights	Annual Payment (MK/Yr)	Water Source		Area irrig. (ha)	Water rights	Annual Payment (MK/Yr)	Availability of Farmers Associations	In case of 'Yes' Role of association	Membership		Annual membership fee of association (MK/yr)	Maintenance work for weir/canal	In case of yes days/month normally spend (days)			Individual/Middlemen/ Association	Others (Specify)
			Well/groundwater; river/stream; Lake/pond	Other (specify)						Well/groundwater; river/stream; Lake/pond	Other (specify)						None; Yes	Male				Female			
SOC/NU/02	CHAPITA	1								dam	12	unregistered		none							individual		10	individually	
SOC/NU/01	DAVITE	1												yes	manage of water flow in the canal	20	16	700	yes	2	individual		10	individual/vendors	
SOC/DZ/03	KUMPHIRA	3												yes	to provide guidance to water users	27	13	500	yes	30	individual		200	individual/vendors	
SOC/DZ/02	KASANKHA	3								12				none							individual		40	individual/vendors	
SOC/DZ/01	KACHINDAMOT	3												yes	agribusiness, channelling buyers to seller	989	1078	500	yes	3	association/club/cooperative		150	association/club/cooperative	
SOC/LL/05	KUDZODZI	4	ground water		35	28		unregisterd						none							individual		6	individual/vendors	
SOC/LL/04	CHALA	4	lake		1	0.5		unregisterd	ground water					none							individual		10	individual/vendors	
SCO/LL/03	POJOKAISI	4	ground water, river		2	1.8		unregisterd	ground water, river					none							individual			individual/vendors, middlemen	
SOC/LL/02	MVUWA	4							ground water	wells	3	unregistered		yes	village savings and loans	10	30	100	yes	2	individual		2	individual/vendors	
SCO/LL/01	MSAKO	4	river		4	2.5		unregistered						yes			15	45	100		association/club/cooperative	the have an	8	individual/vendors	
SOC/NC/02	NTANGA	15												none							individual			individual/middlemen	
SOC/NC/01	CHIPELESA	15												none							individual			individually/	
SOC/DA/03	CHIMWENDO	15																			individual			individually	
SOC/DA/02	JONAS	15																			individual			individually	
SOC/DA/01	CHIMUNGU	15	river		26	1.04		unregistered	river/stream		1.4	unregistered	350	none							individual			individually	
SOC/MC/03	KACHAMBA	6												none							individual			individual/middlemen	
SOC/MC/02	KALULU	6												none							individual			individually	
SOC/MC/01	JONI	5							river/ stream		1.4	unregistered		none							individual			individually/middlemen/associations/club/cooperatives	
SOC/KU/05	KANYENDA	6												yes			4	6	500	yes	1	individual/middlemen, association/club/cooperative			
SOC/KU/04	KANSIMJENI	6												none							individual			individual	
SOC/KU/03	CHISANU	6							river/ stream					none							individual			individual	
SOC/KU/02	MBILA	6							groundwater/ well					none							individual		5	individual	
SOC/KU/01	CHIOZA	6												none							individual			individual	
SOC/KA/03	MWANJASI	17												none							individual			individual	

CHAPTER 4 SOCIO-ECONOMIC SURVEY

Village Code	Name of Vge	WRA	Market and Research							Issues			Authenticity						
			How do you find market for:							Matters of Farming	Matters of Livelihood	General	Main Interviewee		Interviewee		Interviewer		Witness
			Maize	Rice	Tobacco	Cotton	Coffee	Sugarcane	Tea				Name	Occupation	Name	Occupation	Date	Name	Name
SOC/NU/02	CHAPITA	1							land disputes between two villages of kalima and khanganya, poor usage if the reservoir, poaching of fish in the dam, other villagers deny others to use the water source, the canal needs to have concrete	they need a motorised pump, fish nets for fishing, new technologies for conserving water and irrigation, provide seeds and fertilizer		R. Chitsonga	treasure	Joye	farmer	15/10/2012	c. siabu	Pempho	
SOC/NU/01	DAVITE	1							lack of inputs like fertilizer, pests disease attack their crop like chiwawu in irish potatoes		poor road network	M. Banda	farmer	G. Malawa	farmer	15/10/2012	pempho sinkanda	Nanchukwa	
SOC/DZ/03	KUMPHIRA	3							fertilizer is expensive, the water table is low		poor road network, bad network, long distance to the hospital	madalina	farmer	sikotala	farmer	14/10/2012	c. siabu	jjide	
SOC/DZ/02	KASANKHA	3							lack of finances to buy inputs like fertilizer and other farm tools, lack of enough water,		the livelihood is so good	Catherine Njuzi	farmer						
SOC/DZ/01	KACHINDAMOT	3							power shortage affects their production (maximum demand charge), lack of capital for production, unstable markets, lack of water for illigation (climatic change)	they need a dam to reserve water	the information given is for the scheme not village	sebala	secretary	malota	president	16/10/2012	pempho sinkanda	Nanchukwa	
SOC/LL/05	KUDZODZI	4							lack of inputs, climatic change	shortage of potable water, long distance to the market		billy	farmer	falisoni	farmer	2012/9/10	c. siabu	Nanchukwa	
SOC/LL/04	CHALA	4							lack of inputs, failure to maintain the dam due to lack of capital			milika	farmer	kaikeni ponde	farmer	2012/11/10	pempho sinkanda	Nanchukwa	
SCO/LL/03	POJOKAISI	4							the dam does not have a spillway and it break easily, the reservoir does not have enough water to irrigate the whole dry season			aglas chasadza	farmer				sunganani chiwala	Nanchukwa	
SOC/LL/02	MVUWA	4							shortage of fertilizer, lack of farming knowledge,		shortage of portable water, farmers are ready for ant development even if it means sharing	mosanjo	farmer	filimoni	farmer		c. siabu	Nanchukwa	
SCO/LL/01	MSAKO	4							water management is a problem, lack of finances to buy diseal		the livelihood is so good	nathan jemus	farmer	a. ziyenda	farmer	2012/9/10	clauzelly gausi	Nanchukwa	
SOC/NC/02	NTANGA	15							scarcity of markets, shortage of inputs like seed and fertilizer	gender based violence, segrargation against widows, non indigenious people are not allowed to join the scheme	lack od portable water	chilonola	farmer	j. manganya	ext. worker	2012/7/10	monica mfutso	T. phiri	
SOC/NC/01	CHIPELESA	15							the farmers have little knowlwe on the population of the whole village as the village headman does not show interest in irrigation farming			B. Nkhoma	farmer	A. Chirwa	farmer	2012/3/10	E. Buxtone	T. phiri	
SOC/DA/03	CHIMWENDO	15							the farmers run short of the water they used to irrigate in 2009 in the end they just dug wells to help supply water			L. Jentile	village head	F. Lungu	farmer	2012/10/10	E. Buxtone	T. phiri	
SOC/DA/02	JONAS	15							lack of inputs like seed and fertilizer		lack of a health facility as they don't have a health facility near by	S. Jele	village head	M. Jonasi	Group vilage head	2012/11/10	E. Buxtone	T. phiri	
SOC/DA/01	CHIMUNGU	15							lack of proper markets where they can sell their produce though the is a few kilometre from trading center	frequent out-break of cholera	people have tredle pumps but they don't use them because people say they are tiresome	chimungu	village head			2012/9/10	E. Buxtone	T. phiri	
SOC/MC/03	KACHAMBA	6							lack of iinputs such as fertilizer, lack of markets		lack of portable water as the whole village one bolehole	VH Kachamba	VH			2012/10/10	E. Buxtone	T. phiri	
SOC/MC/02	KALULU	6							lack of inputs like fertilizer and markets	the village is mostly affected by malaria and they spend most time caring for the sick, than in their farms		stellah masanjika	village head	D. Gombwa	secretary	14/10/2012	E. Buxtone	T. phiri	
SOC/MC/01	JONI	5							lack of inputs like fertilizer, the rising cost of fuel and fertlizer making it had to buy			Z. sakala	farmer	Irod Jeke	farmer	14/10/2012	E. Buxtone	T. phiri	
SOC/KU/05	KANYENDA	6							lack of markets for crops like vegetables, like of inputs like seed for soya			GVH KALIKWEB E	village head			2012/2/10	lyson and feckson	T. phiri	
SOC/KU/04	KANSIMJENI	6							lack of water to irrigate that ristricts their area of irrigation			Kasinjeni	village head			2012/2/10	E. Buxtone	T. phiri	
SOC/KU/03	CHISANU	6							lack of security of their farm products, water shortage , lack of inputs like seed and water pump for irrigation	lack of safe water and social services like schools and hospitals	the dam is wrongly lcatd at mavwembe and not at vimbiru henva the dam does not keep water	laston	farmer	vingstoni	farmer	2012/3/10	T. Phiri	S. T. ndevuzamwai	
SOC/KU/02	MBILA	6							shortage of water to irrigate, lack of fertilizer(very expensive), no reliable markets they sell at very low prices, no access to sale at admarc (monopoly)	too much drinkinh alcohol that results into bad behaviours, schools are very far that makes it had for children to go to school especially in the rain season because they have no bridge	there is no portable water, the hospital is very far	A. Mbila	village head	milica banda	village extension worker	2012/2/10	T. Phiri	G. K. banda	
SOC/KU/01	CHIOZA	6								farmers have little knowledge on the village population as the headman shows no interest in irrigation farming		Bonyace Nkhoma	farmer				E. Buxtone	T. phiri	
SOC/KA/03	MWANJASI	17							no extension service that affects their production, lack of maintance that causes a lot of water losses, some land close to 40ha just staying idle asking for a dam , request for agricultural training		asking for a possibility of loans	brown	farmer	Joyce Sakala	farmer	2012/11/10	D. Mwenechanya	o. maecello	

CHAPTER 4 SOCIO-ECONOMIC SURVEY

Village Code	Name of Vge	WRA	Location								Population						Scale/Mode of farming					Farm Land/Farmer						
			District	EPA	Accessibility	Topo. Map (1 in 50,000)	GPS (Coordinates)			Village Population			Head of Farmer Family			Large irrig.(ha)	Medium irrig.(ha)	Small irrig.(ha)	Mini scale irrig.(ha)	Others (Specify)	Farm Land (ha)		Farm Land (ha)					
							Easting	Northing	Altitude (m)	Vge entrance	Vge centre	Whole Vge (Families)	Avg family members	Total Village Population	Farmer Families						Male	Female		Total Farm Land (ha)	Rain-Fed Land (ha)			
																							Location of Coordinates					
SOC/KA/02	MWENELUPEMI		9	KARONGA	lupembe	2	Impossible	608429	8885053	500	1		720	7	5040	720	675	45						540	520	20		
SOC/KA/01	KAYEREKELA		8	KARONGA	mapata	1	Done	579599	8895256	2726		1	380	8	3040	220	100	120				7			315	308	7	
SOC/MZ/05	MPONDA MVUL		7	MZIMBA	kazembe	1	Impossible	553912	8688217	1271	1		135	5	675	135	95	40				3			273	270	3	
SOC/MZ/04	KATAMBALALA		7	MZIMBA	manyamula	1	Done	546917	8668588	1277		1	300	4	1200	280	270	10				11			371	360	11	
SOC/MZ/03	ZEBEDIA		7	MZIMBA	manyamula	1	Impossible	550155	8690599	1246		1	267	4	1068	267	60	207				28			775.6	747.6	28	
SOC/MZ/02	JENDA		7	MZIMBA	champhira	2	Done	560405	8634826	1434	1		250	4	1000	250	150	100				65			815	750	65	
SOC/MZ/01	MLAWA		7	MZIMBA	vangalalala	1	Impossible	550977	8469378	1255		1	91	5	546	91	76	15				3			276	273	3	
SOC/RU/05	MGOMAKHAND		7	RUMPHI	mhuju	1	Done	611645	8794647	1010		1	40	5	200	8	6	2				6			166	160	6	
SOC/RU/04	BONGOLOLO		7	RUMPHI	bolero	1	Impossible	581007	8787033	1091	1		247	5	1235	247	227	20				9			10.5	1.5	9	
SOC/RU/03	CHATUMBWA a		7	RUMPHI	katowo	3	Impossible	552347	8801632	1179		1	279	7	1953	279	237	42				7			9.9	2.9	7	
SOC/RU/02	NTHAWATAWA		7	RUMPHI	katowo	1	Done	558168	8805702	1246	1		400	6	3200	400	300	100				30			13	10	3	
SOC/RU/01	VWALAKO		7	RUMPHI	mhuju	1	Impossible	616548	8799681	997	1		20	8	160	19	18	1				2.5			1.2	1	0.2	
SOC/CP/04	CHENDO		9	CHITIPA	lufita	1	Impossible	544858	8906945	1402		1	900	6	4500	900	650	250				2			1442.1	1440	2.1	
SOC/CP/03	NJENGA		9	CHITIPA	mwankhum	1	Impossible	525044	8949104	1283		1	43	5	215	43	30	13				18			121.2	103.2	18	
SOC/CO/02	NANDUNDA		9	CHITIPA	lufita	1	Impossible	541645	8934803	1188	1		66	6	369	66	45	21				9.5			207.5	198	9.5	
SOC/CP/01	CHINUKHA		9	CHITIPA	LUFITA	1	Impossible	539799	8930546	1196	1		10200	5	6100	2100	1300	800				10.8			6310.8	6300	10.8	
SOC/KK/02	MGOWA		6	NKHOTAKOTA	khunga	3	Done	625787	8598702	523	1		50	9	450	50	30	20				2			42	40	2	
SOC/KK/01	MPAMANTHA		6	NKHOTAKOTA	LINGA	1	Done	635902	8553833	500	1		572	7	4004	572	305	267	150							836.4	686.4	150
SOC/NB/02	LIMPHASA		16	NKHATABAY	BANGA	1	Done	635385	8710792	512	1		589	7	4123	589	350	239	560							1384.6	824.6	560
SOC/NB/01	NTHETA		16	NKHATABAY	CHIKUNA	1	Done	616936	8741374	1261	1		1528	6	9168	1508	800	708				13			2152	2139	13	
SOC/BLK/02	SILIKA		1	BALAKA	ulongwe	2	Impossible	721930	8363760	674		1	70	10	700	70	20	50				10			25	15	10	

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Village Code	Name of Vge	WRA	Farm Land/Farmer										Major Farm Products / Acreage & Cultivation Period													
			Owned Land			Tenant Farmers			Irrig. Land Farmer			Irrigation area				Rainy season										
			Owned Land Farmers (families)	family head (male)	family head (female)	Tenant Farmer (families)	family head (male)	family head (female)	Irrig. Land Farmer (families)	family head (male)	family head (female)	Maize; Rice; Tobacco	Cotton; Wheat; Coffee	Sugarcane; Tea; Groundnut	Cassava; Sunflower; Vegetable;	Beans; Soybeans; Sweet potato; Irish potato	Others [specify]	Maize			Rice (Paddy)			Tobacco		
																		ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg
SOC/KA/02	MWENELUPEMI	9	720	675	45				147	94	53	maize, rice	cotton	groundnuts	vegetables	sweet potatoes,beans		110	nov-may	60	25	nov-may	200			
SOC/KA/01	KAYEREKELA	8	250	126	124	100	60	40	87	64	23	maize			vegetables			1.84	nov-may	50						
SOC/MZ/05	MPONDA MVUI	7	135	95	40				15	8	7	maize, tobacco		groundnuts	vegetables	sweet potatoes, soya beans, beans	millet									
SOC/MZ/04	KATAMBALALA	7	300	270	30				24	15	9	maize, tobacco		groundnuts	vegetables	sweet potatoes, soya beans, beans, irish potatoes										
SOC/MZ/03	ZEBEDIA	7	68	60	8				23	6	17	maize			vegetables	sweet potatoes, beans	millet	4.48	nov-april	45						
SOC/MZ/02	JENDA	7	438	198	240	50	40	10	204	119	85	maize			vegetables	beans, irish potatoes	peas	45	nov-april	20						
SOC/MZ/01	MLAWA	7	91	76	15				70	60	10	maize, tobacco		groundnuts	vegetables	soya beans, irish potatoes										
SOC/RU/05	MGOMAKHAND	7	66	45	21				34	21	13	maize, tobacco		groundnuts	vegetables	soya beans, beans, irish potatoes		1.14	nov-feb	35						
SOC/RU/04	BONGOLOLO	7	242	224	18	5	3	2	37	18	19	maize, rice, tobacco		groundnuts, sugarcane	vegetables, cassava	soya beans, beans,				0.1	dec-june	170				
SOC/RU/03	CHATUMBWA a	7	279	237	42				54	17	37	maize, rice, tobacco,		groundnuts		sweet potatoes,				0.2	dec-june	165				
SOC/RU/02	NTHAWATAWA	7	400	300	100				300	210	90	maize, tobacco		groundnuts	vegetables	sweet potatoes, soya beans, beans, irish potatoes		6	nov-feb	40				2	nov-apr	280
SOC/RU/01	VWALAKO	7	19	18	1				17	16	1	maize, tobacco		groundnuts	vegetables	sweet potatoes, beans										
SOC/CP/04	CHENDO	9	900	650	250				105	94	11	maize, tobacco		groundnuts	sunflower	sweet potatoes,beans,soya beans										
SOC/CP/03	NJENGA	9	43	30	13				18	15	3	maize, tobacco		groundnuts	vegetables, sunflower	beans,	millet	18	dec-march	50						
SOC/CO/02	NANDUNDA	9	66	45	21				66	45	21	maize, tobacco		groundnuts	vegetables, sunflower, cassava			3.96	dec-march	35						
SOC/CP/01	CHINUKHA	9	2100	1300	800				240	50	190	maize, tobacco		groundnuts,	vegetables, sunflower	sweet potatoes, beans,	millet	4.8	dec-march	25						
SOC/KK/02	MGOWA	6	27	15	12				27	15	12	maize		groundnuts	vegetables	sweet potatoes										
SOC/KK/01	MPAMANTHA	6	520	234	286	286	180	106	250	143	107	maize, rice	cotton	groundnuts	vegetables	sweet potatoes,	chillies			150	jan-june	100				
SOC/NB/02	LIMPHASA	16	95	65	30				85	55	30	maize				sweet potatoes, beans,	chillies			dec-june	30	dec-june	175			
SOC/NB/01	NTHETA	16	1513	1024	489	764	300	164	78	61	17	maize	coffee		vegetables	sweet potatoes		10	nov-march	25						
SOC/BLK/02	SILIKA	1	48	5	43	7	0	7	30	0	30	maize			vegetables			1	nov-march	30						

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Village Code	Name of Vge	WRA	Major Farm Products / Acreage & Cultivation Period																					
			Rainy season																					
			Sweet Potato			Soya Beans			Beans			G'nuts (shelled)			Cassava			Pigeon Peas			Vegetables		Vegetables	
			ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	
SOC/KA/02	MWENELUPEMI	9																						
SOC/KA/01	KAYEREKELA	8							70	nov-april	300										9.4	dec-mar	65	
SOC/MZ/05	MPONDA MVUL	7																						
SOC/MZ/04	KATAMBALALA	7																						
SOC/MZ/03	ZEBEDIA	7	0.15	nov-april	100				3.4	nov-april	300										3.1	nov-april	120	
SOC/MZ/02	JENDA	7							0.5	feb-may	100													
SOC/MZ/01	MLAWA	7																						
SOC/RU/05	MGOMAKHAND	7	0.8	nov-dec	90																			
SOC/RU/04	BONGOLOLO	7							0.1	feb-may	400										0.5	dec-march	50	
SOC/RU/03	CHATUMBWA a	7	2.5	dec-may	25																			
SOC/RU/02	NTHAWATAWA	7	0.4	dec-may	22.5	0.1	dec-apr	22.5	0.2	dec-apr	150				0.4	dec-jun	360							
SOC/RU/01	VWALAKO	7																						
SOC/CP/04	CHENDO	9																						
SOC/CP/03	NJENGA	9																						
SOC/CO/02	NANDUNDA	9												0.24	dec-march	300								
SOC/CP/01	CHINUKHA	9																						
SOC/KK/02	MGOWA	6																						
SOC/KK/01	MPAMANTHA	6																						
SOC/NB/02	LIMPHASA	16													1	dec-june	210							
SOC/NB/01	NTHETA	16																						
SOC/BLK/02	SILIKA	1																						

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Village Code	Name of Vge	WRA	Major Farm Products / Acreage & Cultivation Period																								
			Rainy season						Dry Season																		
			Irish Potatoes			Other			Maize			Rice			Sweet Potato			Soya Beans			Beans			G/nuts		G/nuts	
			ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha
SOC/KA/02	MWENELUPEM	9							16	may-august	70																
SOC/KA/01	KAYEREKELA	8							0.8	april-july	100																
SOC/MZ/05	MPONDA MVUL	7							2	april-july	100																
SOC/MZ/04	KATAMBALALA	7																									
SOC/MZ/03	ZEBEDIA	7							2.5	april-july	100						1.4	april-july	150								
SOC/MZ/02	JENDA	7	1.5	nov-apr	200	0.25	nov-apr	100	50	may-nov	55									0.5	may-nov	100					
SOC/MZ/01	MLAWA	7							1.82	may-july	125																
SOC/RU/05	MGOMAKHAND	7							1.14	may-aug	40									0.38	may-august	225					
SOC/RU/04	BONGOLOLO	7							0.2	april-july	40				0.4	march-june	140			0.1	march-june	300					
SOC/RU/03	CHATUMBWA a	7	0.2	dec-june	250				45.1	may-aug	40									0.8	may-august	285					
SOC/RU/02	NTHAWATAWA	7							1		40				0.5	mar- jul	360			0.5	may-august	175	0.5	mar-sept	200		
SOC/RU/01	VWALAKO	7							0.6	oct-jan	40																
SOC/CP/04	CHENDO	9							2.1	april-august	160																
SOC/CP/03	NJENGA	9							2	april-august	100				2	april-aug	95										
SOC/CO/02	NANDUNDA	9							2.1	june-sept	150																
SOC/CP/01	CHINUKHA	9							10	july-oct	45				0.8	march-june	100			6	march-june	200					
SOC/KK/02	MGOWA	6							4	aug-nov	40																
SOC/KK/01	MPAMANTHA	6										150	july-nov	250													
SOC/NB/02	LIMPHASA	16																									
SOC/NB/01	NTHETA	16							0.5	july-oct	45																
SOC/BLK/02	SILIKA	1							0.8	march-june	60																

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Village Code	Name of Vge	WRA	Major Farm Products / Acreage & Cultivation Period																							
			Dry Season									Rain fed area:														
			Cassava			Pigeon Peas			Vegetables			Irish Potatoes			Other			Maize (ha)	Rice(ha)	Tobacco (ha)	Cotton (ha)	Coffee (ha)	Irish potato (ha)	Sweet potato (ha)	Cassava (ha)	
			ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg									
SOC/KA/02	MWENELUPEMI	9							3	may-june	150				tomatoes 2ha	may-july	200	16	30		40			36	45	
SOC/KA/01	KAYEREKELA	8							0.8	april-nov	200							420	4	48	24		120	260	304	
SOC/MZ/05	MPONDA MVUI	7							1	april-august	140							128		6				54		
SOC/MZ/04	KATAMBALALA	7																								
SOC/MZ/03	ZEBEDIA	7							1.2	april-july	150							854.4					106.8	160.2		
SOC/MZ/02	JENDA	7							0.25	may-nov	160							200						75		
SOC/MZ/01	MLAWA	7							1.44	april-july	160	2.14	april-july	300				1.82	8							
SOC/RU/05	MGOMAKHAND	7							0.05	march- augu	130							14		16			0.8	5		
SOC/RU/04	BONGOLOLO	7							0.1	june-july	90							49.4	0.1	19.5			3.9	49.4	13.36	
SOC/RU/03	CHATUMBWA a	7																								
SOC/RU/02	NTHAWATAWA	7										0.5	apr-jul	405				6		3			0.5	0.5		
SOC/RU/01	VWALAKO	7							1.2	may-dec	120							11.4		11.4				1.9		
SOC/CP/04	CHENDO	9																900		80				90	90	
SOC/CP/03	NJENGA	9							0.72	april-july	90							51.6		1.8					1.25	
SOC/CO/02	NANDUNDA	9							0.7	june -sept	220							79.2		10				6.6	2	
SOC/CP/01	CHINUKHA	9																2400		200				210	40	
SOC/KK/02	MGOWA	6							4.2	april-sept	100							11.4	16					5	30	
SOC/KK/01	MPAMANTHA	6																108.7	86	42.9	143			68		
SOC/NB/02	LIMPHASA	16																58.9	530					26	461	
SOC/NB/01	NTHETA	16							4	april-may	210							9.17		1833		50		825	229	
SOC/BLK/02	SILIKA	1							0.2	march-june	100				tomato 0.2	march-june	130	10			3					

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Village Code	Name of Vge	WRA	Major Farm Products / Acreage & Cultivation Period					Mode of Irrigation																		
			Rain fed area:					Irrig. Facility & water source					Reservoir and Catchment Information													
			Beans (ha)	Groundnut (ha)	Sunflower (ha)	vegetable (ha)	Others (ha) [specify]	Reservoir/Pond (River Name)	Intake weir (River Name)	Side intake (River Name)	Dugwell		Reservoir Catchment area (km2)	Reservoir/pond avg area (m2)	Reservoir/Pond Avg depth (m)	Intake weir/Intake Catchment Area (km2)	Reservoir/pond embankment type			Reservoir/Pond location						
											Average Size	Number of dug wells					Earth	Masonry	Others (specify)	Easting	Northing	Altitude (m)				
SOC/KA/02	MWENELUPEMI	9	45	36																						
SOC/KA/01	KAYEREKELA	8					mapambo					8														
SOC/MZ/05	MPONDA MVUL	7		32			millet(19.2)	kamtowa				2.5	450000	9		earth				553848	8688574	1267				
SOC/MZ/04	KATAMBALALA	7					kayange		kayange			2.5	36000	3						546823	8667859	1296				
SOC/MZ/03	ZEBEDIA	7	53			0.8	jata	jata				0.6	64500		6	earth				549458	8689076	1224				
SOC/MZ/02	JENDA	7	100	50	41.5		kamalambo		kamalambo			3	210000	7			masonry			561506	8636146	1354				
SOC/MZ/01	MLAWA	7		1.82		1.44						2.3 diam, 2m	10													
SOC/RU/05	MGOMAKHAND	7	9																							
SOC/RU/04	BONGOLOLO	7	49.40																							
SOC/RU/03	CHATUMBWA a	7					hewe	hewe	hewe			440	6000	2	440		masonry			552347	8801632	1191				
SOC/RU/02	NTHAWATAWA	7	0.50	0.5		0.2	hewe	hewe	hewe			5		3.5	2		masonry			559349	8806862	1249				
SOC/RU/01	VWALAKO	7	11.40	3.5		7																				
SOC/CP/04	CHENDO	9		180	54		chendo					0.83	13280	1.6			masonry			545068	8904790	1489				
SOC/CP/03	NJENGA	9	8.60	24			millet (1)																			
SOC/CO/02	NANDUNDA	9		13											6											
SOC/CP/01	CHINUKHA	9		160	6.5	2.1			chibula						9											
SOC/KK/02	MGOWA	6		10			walemela																			
SOC/KK/01	MPAMANTHA	6		458			soya (57)	mdira				245	108000	6		earth				634936	8554422	494				
SOC/NB/02	LIMPHASA	16	11.80					hwazi and mwambazi hiki kadoni	limphasa	limphasa											634327	8715424	510			
SOC/NB/01	NTHETA	16	917.00			6.5															617011	8741405	1317			
SOC/BLK/02	SILIKA	1		10			soya (8), pegion peas (10)	namilamba	namilamba			2.5			7		masonry				721579	8363944	674			

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Village Code	Name of Vge	WRA	Mode of Irrigation																				
			Gravity fed system											Motorised Pump System									
			Intake weir/Intake location			Intake weir/ Intake - type	Intake weir/ intake structure type			Main Canal total length (m)	material of the canal	Minimum cross section		Longitudinal gradient along the point (%)	Water rights	Annual payment (MK/year)	Water Source		Number of Pumps	Area irrig. (ha)	Monthly pumped water volume at critical time (m3/m/pump)	Water rights	Annual Payment (MK/Yr)
			Easting	Northing	Altitude (m)	Permanent; Temporary	Concrete/Masonry ; Local materials	Others (specify)	Height (cm)			width (cm)	River; Lake/Pond				Others (Specify)						
SOC/KA/02	MWENELUPEMI	9														takisya	lake malawi	2	4		unregistered		
SOC/KA/01	KAYEREKELA	8	573367	8897730	885				450	concrete						river / stream		5	0.2		unregistered		
SOC/MZ/05	MPONDA MVUL	7														kamtowa river		1	3				
SOC/MZ/04	KATAMBALALA	7							130														
SOC/MZ/03	ZEBEDIA	7	549438	8688978	1216			earth	75	earth				unregistered									
SOC/MZ/02	JENDA	7				permanent								unregistered									
SOC/MZ/01	MLAWA	7																					
SOC/RU/05	MGOMAKHAND	7																					
SOC/RU/04	BONGOLOLO	7																					
SOC/RU/03	CHATUMBWA a	7	552327	8801627	1194	permanent			1000	masonry	300	555	1	registered	1000								
SOC/RU/02	NTHAWATAWA	7	559345	8806838	1248	temporary			3000	earth	60	100		registered	3000								
SOC/RU/01	VWALAKO	7	616424	8799562	972	temporary	local material		250	earth	25	18	1	unregistered									
SOC/CP/04	CHENDO	9						pipe (PVC)				11		unregistered									
SOC/CP/03	NJENGA	9														songwe river		2	2		unregistered		
SOC/CO/02	NANDUNDA	9	542104	8934691	1246	permanent			400	earth				unregistered									
SOC/CP/01	CHINUKHA	9	541769	8931973	1321	permanent	concrete		12000	PVC pipe		10.1											
SOC/KK/02	MGOWA	6																					
SOC/KK/01	MPAMANTHA	6	635157	8554336	500	permanent			800	earth	30	82	0.1	registered	3000								
SOC/NB/02	LIMPHASA	16	634393	8715471	513	permanent	concrete		7015	concrete	200	500		registered	3000								
SOC/NB/01	NTHETA	16							800	brick lined	50	67		unregistered									
SOC/BLK/02	SILIKA	1																					

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Village Code	Name of Vge	WRA	Mode of Irrigation																	Market and Research				
			Treadle Pump System							Water Can System				General Association						How is market sourced		Distance to the Market (Km)	How do you sell your products	
			Water Source		Number of Pumps	Area irrig. (ha)	Monthly pumped water volume at critical time (m3/m/pump)	Water rights	Annual Payment (MK/Yr)	Water Source		Area irrig. (ha)	Water rights	Annual Payment (MK/Yr)	Availability of Farmers Associations	In case of 'Yes' Role of association	Membership		Annual membership fee of association (MK/yr)	Maintenance work for weir/canal	In case of yes days/month normally spend (days)			Individual /Middlemen; Association
			Well/groundwater; river/stream; Lake/pond	Other (specify)						Well/groundwater; river/stream; Lake/pond	Other (specify)						Male	Female						
SOC/KA/02	MWENELUPEMI	9											yes	to develop the scheme	7	4	500	yes	3	through association and clubs			individual	
SOC/KA/01	KAYEREKELA	8						river/ stream				unregistered	none							individual			individually/middlemen/associations/club/cooperatives	
SOC/MZ/05	MPONDA MVUL	7											none					yes	9	individual			individual/as association	
SOC/MZ/04	KATAMBALALA	7	river/stream		5	1.2			unregistered				yes	share land, and look after water usage	7	5	1000			through association and clubs			individual/as association	
SOC/MZ/03	ZEBEDIA	7										8	unregistered	none			300	yes		individually			individual/as association	
SOC/MZ/02	JENDA	7										65	unregistered	none						individually			individual/as association	
SOC/MZ/01	MLAWA	7			8	3			unregistered				none							individually			individually	
SOC/RU/05	MGOMAKHAND	7	river/ stream		2	2.5			unregistered			2.5	unregistered	yes	to oversee the management of the sche	11	8	1000			individually			individually
SOC/RU/04	BONGOLOLO	7	river/ stream luviri		3	0.6			unregistered	river. Stream		0.6	unregistered	none						individually		1	individually	
SOC/RU/03	CHATUMBWA a	7											yes	managing the scheme	204	111	500			individually			individually	
SOC/RU/02	NTHAWATAWA	7											yes	supervising water management	25	25	500			individually			individually/vendors	
SOC/RU/01	VWALAKO	7											yes	to manage the scheme	8	16	200			through association and clubs			through association and clubs	
SOC/CP/04	CHENDO	9											yes	overseer of the scheme	52	53	500	none		individual		18	individually	
SOC/CP/03	NJENGA	9											yes	overseer of the scheme, and group	10	8	2000			individually			individually	
SOC/CO/02	NANDUNDA	9											yes	to see the operations of the scheme	46	61	500	none		individually/middlemen			individually	
SOC/CP/01	CHINUKHA	9											yes	supervision and management of the sche	50	190	500	none		individual/middlemen			through association and clubs/individually	
SOC/KK/02	MGOWA	6	river/ stream		1	0.6			unregistered				none							individual/middlemen			through association and clubs/individually	
SOC/KK/01	MPAMANTHA	6											yes		125	125	300	yes	9	individually/middlemen			individually	
SOC/NB/02	LIMPHASA	16											yes	look after the scheme and management	15	1	38000	yes	30	individually/cooperative			individually/cooperative/association	
SOC/NB/01	NTHETA	16											none							individually/middlemen			individually	
SOC/BLK/02	SILIKA	1	river/ stream		3	2.5			unregistered				yes		5	25	500	none		individually			individually	

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Village Code	Name of Vge	WRA	Market and Research							Issues			Authenticity						
			How do you find market for:							Matters of Farming	Matters of Livelihood	General	Main Interviewee		Interviewee		Interviewer		Witness
			Maize	Rice	Tobacco	Cotton	Coffee	Sugarcane	Tea				Name	Occupation	Name	Occupation	Date	Name	Name
SOC/KA/02	MWENELUPEMI	9							lack of adequate inputs like fertilizer, maize seed and pesticides, shortage of fuel, they have a canal but it is not complete	they don't have enough food, lack of money to buy necessities in their homes like school fees and hospital bills	the government should increase the number of farmers benefiting from irrigation, poor sanitation in the area	allan kaonga	chief's counce	bodwin mwangupili	chairman	2012/10/10	wakisa	J. Mbale	
SOC/KA/01	KAYEREKELA	8							insufficiency of water because the canal is not complete, sourcing of inputs, broken pipes, the canals have a lot of seepage, the canal is not complete	lack of extension training, the plan of construction and design of the dam is not the same , there is a gap ans it is not effective between the donors and the farmers,	markets of produce are poor and scarce	Mefa Mwandira	farmer				D. Mwenechanya	o. maecello	
SOC/MZ/05	MPONDA MVULI	7							they were provided with tredle pumps but no noozles, scarcity of fuel and price infation, fertilizer prices	they have a health facility problem	lack of safe and portable water for drinking	whiteman .Z. Mhango		K.K. Jonaz	R. A. O	2012/3/10	D. Mwenechanya	o. maecello	
SOC/MZ/04	KATAMBALALA	7							lack of farm tools and equipments like wheelbarrowa and fertilizers	women only are the one's who go to the field while men just go drinking	lack of resources for farming, there is no canal to be used ofor irrigation because the land is raised	K Phiri	village head				D. Mwenechanya	o. maecello	
SOC/MZ/03	ZEBEDIA	7							they need treadle puumps and watercanes, the reservoir is unoperationla and broken, insufficient water due to brocken dam, fertilizer scarcity			mercy chirwa	farmer	David Ngulube	farmer	2012/3/10	D. Mwenechanya	o. maecello	
SOC/MZ/02	JENDA	7							lack of market, scarcity of agricultural inputs, the reservoir has a lot of reeds, the dam is not complete	they need exchange visits to other sites, the dam has no canals, the intake pipe is far wayy from the dam, they need more training on irrigation and agriculture		clement banda	farmer	aubrey chirambo	farmer	2012/4/10	D. Mwenechanya	o. maecello	
SOC/MZ/01	MLAWA	7							lack of inputs like fertilizer and seeds, the water source is perenial there is need of a reservoir/ dam	no enough huma resource at the nearby health centre, no portable drinking water, no close maize mills	they are high trends of husbands migrating to south africa leading into unfaithfulness between married people, not enough coupons for farm input subsidy	Zimba	secretary	sawa	vete. Scout	2012/4/10	D. Mwenechanya	o. maecello	
SOC/RU/05	MGOMAKHANDI	7							they no irrigation facilities like pumps and canals, frtilizer prices are unpridictable hence scarcity of resources, un reliable market of produce	malaria is a big problem in the area and distribution od mosquito nets is discriminative	lack of portable water, and nusery schoolfor their children in the area	frank ngoma	farmer	amos nyasulu	treasure	2012/7/10	D. Mwenechanya	o. maecello	
SOC/RU/04	BONGOLOLO	7							lack of training on improved irrigation techniques, lack of enough water to irrigate, lack of transport for produce like tobacco	they don't have enough food resulting in femine most of the times, wish a motised engine for irrigation		mtampha	farmer	J. Matupi	farmer	2012/7/10	wakisa	o. maecello	
SOC/RU/03	CHATUMBWA a	7							elephants destroy their crops, transportation of produce is a challenge, the scheme is still under construction	high malaria cases and the hospital is far, need for training to improve irrigation		Paul nude	chairman	G. Ngwira	secretary	2012/6/10	wakisa	o. maecello	
SOC/RU/02	NTHAWATAWA	7							insuffient water for crops, farm inputs are very expensive, construction of the weir is poor, earth canals are not reliable hence need concrete canals, need a reservoir in order to reserve water			hendrix luhanga	president	james Zyambo	lead farmer	2012/6/10	B. M. Moyo	o. maecello	
SOC/RU/01	VWALAKO	7							the seed does not tally with the soil in the area, they have a problem with markets,	they don't have portable water, the number of FISP beneficiaries have reduced, they would rather wish a diffarent aproach on the programme		david	G. V. H	Francis kachali	AEDO	2012/7/10	wakisa	o. maecello	
SOC/CP/04	CHENDO	9							fertilizer prices are quite high and unpridictable, lack of pesticides, the distance to the market is long making the transportation costs be very high	high prevalence rate of marala, lack of enough food, shortage of portable water, shortage of health facilities only under five clinic is available		kuyokwa	farmer	Tod kayange	farmer	2012/9/10	D. Mwenechanya	G. Chitakamile	
SOC/CP/03	NJENGA	9							input prices are high like fertilizer, the delivery horse of their pupm is damaged, need to align the main canal	no portable water for use especially for drinking	high rate of HIV prevalence rate	E. Ghamba	chairman	H. mwepa	secretary	2008/8/10	D. Mwenechanya	o. maecello	
SOC/CO/02	NANDUNDA	9							fertilizer prices are high, no enough water to meet the demand of the members of the scheme, they would prfer to have a resevoir than the canals that they have	biasness in the distrubution of coupons, awareness of sexually transmitted diseases, marketing of Agricultural produce		R. Chanya	fomer chair	Christina mubisa	famer	2012/9/10	D. Mwenechanya	o. maecello	
SOC/CP/01	CHINUKHA	9							agricultural inputs are expensive, water was not distributed to all the farmers, need to align the secondary canal to capture more water	75 of the farmers are poor hence difficult to earn a living	awareness of sexually transmitted diseases	Mary nyondo	treasure	G. Kapesa	secretary	2012/9/10	D. Mwenechanya	G. Chitakamile	
SOC/KK/02	MGOWA	6							marketing is a problem in the village, low selling prices, it is hard to acquire inputs for the farmers asking for loans if possible, they hae a big potential area to irrigate but they few tradle pumps farmers asking for pump if posible, they had 3 pumps but only one is operational causing problem to irrigate			D. Yotamu	farmer	memory		14/10/2012	o. Marcello	Wakisa	
SOC/KK/01	MPAMANTHA	6							the spilway of the dam is broken and needs mending			sambanichiri	farmer	bosco phiri	farmer	15/10/2012	o. Marcello	M. H kaligumbwa	
SOC/NB/02	LIMPHASA	16							lack of electricrity for the rice mills, water table is often low during dry season, lack of machinery and equipment, conflicts with limphasa sugar cooperation			J. Mwanyongo	president			13/10/2012	B. M. Moyo	S. O. M Moyo	
SOC/NB/01	NTHETA	16							price of agricultural inputs are high, the benefits of the subsidy does not cover the whole village			german	farmer			2012/12/10	D. Mwenechanya		
SOC/BLK/02	SILIKA	1							thet don't receive adequate rains and that affects their harvets, they don't have enough food, famine, they need an motorise engine in the scheme		death of their husbands is leading into more female headed household	J. matiki	farmer	M. Malija	farmer	18/10/2012	Hezel mwachande	G.V.H. silika	

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Village Code	Name of Vge	WRA	Location								Population						Scale/Mode of farming					Farm Land/Farmer			
			District	EPA	Accessibility	Topo. Map (1 in 50,000)	GPS (Coordinates)			Village Population			Head of Farmer Family			Large irrig.(ha)	Medium irrig.(ha)	Small irrig.(ha)	Mini scale irrig.(ha)	Others (Specify)	Farm Land (ha)		Farm Land (ha)		
							Easting	Northing	Altitude (m)	Location of Coordinates		Whole Vge (Families)	Avg family members	Total Village Population	Farmer Families						Male	Female		Total Farm Land (ha)	Rain-Fed Land (ha)
										Vge entrance	Vge centre														
SOC/BLK/01	CHISINKHA	1	BALAKA	mpilisi		2	Impossible	727957	8312725	485			1	172	7	1204	172	33	105			26	971.24	945.24	26
SOC/MHG/03	MPOYA	1	MACHINGA	ntubwi		2	Impossible	744099	8317918	714		1	176	4	412	161	91	70			14	24	14	10	
SOC/MHG/02	MPOTOLA	1	MACHINGA	ntubwi		2	Impossible	750075	8333066	515		1	390	9	3510	890	352	38			47	97	50	47	
SOC/MHG/01	DAUDA	1	MACHINGA	nsanama		3	Impossible	768051	8329330	648		1	90	6	540	88	83	5			5	44.4	39.2	5.2	
SOC/MH/05	CHIKOJA	11	MANGOCHI	katuli		2	Impossible	768422	8424243	961		1	140	8	1120	140	120	20			20	132	112	20	
SOC/MH/04	MACHEMBA	11	MANGOCHI	mtiya		1	Impossible	767315	8417866	968		1	431	6	2586	400	381	19			3	1508.5	1505.5	3	
SOC/MH/03	SABILI	11	MANGOCHI	MTIYA		2	Done	766385	8413533	1089		1	180	4	523	190	170	20			18	54	36	18	
SOC/MH/02	MACHENJE	11	MANGOCHI	mthilamanje		2	Impossible	724285	8383460	831		1	66	5	330	66	56	10			12	47	35	12	
SOC/MH/01	KAMPHANDE	10	MONGOCHI	Mbwadulu		1	Impossible	699364	8436516	474		1	365	9	3200	360	300	160			19.2	567.2	548	19.2	

Village Code	Name of Vge	WRA	Farm Land/Farmer										Major Farm Products / Acreage & Cultivation Period															
			Owned Land			Tenant Farmers			Irrig. Land Farmer				Irrigation area				Rainy season											
			Owned Land Farmers (families)	family head (male)	family head (female)	Tenant Farmer (families)	family head (male)	family head (female)	Irrig. Land Farmer (families)	family head (male)	family head (female)	Maize; Rice; Tobacco	Cotton; Wheat; Coffee	Sugarcane; Tea; Groundnut	Cassava; Sunflower; Vegetable;	Beans; Soyabans; Sweet potato; Irish potato	Others [specify]	Maize			Rice (Paddy)			Tobacco				
																		ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg		
SOC/BLK/01	CHISINKHA	1	70	20	50	102	40	62	47	13	34	maize	cotton	groundnuts	cassava, vegetables	sweet potatoes, beans, soya beans	sorghum											
SOC/MHG/03	MPOYA	1	176	60	116				150	9	141	maize, tobacco			cassava, vegetables	sweet potatoes,		10	dec-april	20								
SOC/MHG/02	MPOTOLA	1	390	352	38				145	79	66				vegetables			0.3	oct-jan	35								
SOC/MHG/01	DAUDA	1	90	85	5				66	45	21	maize, rice			vegetables	sweet potatoes, pegon peas, okra				5.2	jan-april	100						
SOC/MH/05	CHIKOJA	11	140	120	20	20	10	10	132	77	55	maize			vegetables	soya beans, sorghum		112	nov-march	35								
SOC/MH/04	MACHEMBA	11	280	261	19	10	10	0	34	17	17	maize, rice		groundnuts	vegetables	Sweet potatoes, irish potatoes												
SOC/MH/03	SABILI	11	190	187	3	20	18	2	163	91	72	maize			vegetables	sweet potatoes		3	nov-march	24								
SOC/MH/02	MACHENJE	11	54	49	5	12	7	5	17	14	3	maize, rice, tobacco,	cotton	groundnuts	vegetables	sweet potatoes, cassava		1.5	dec-march	40	1	dec-march	180					
SOC/MH/01	KAMPHANDE	10	250	170	80	115	65	50	197	99	98	maize, rice			vegetables						29.28	dec-april	120					

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Village Code	Name of Vge	WRA	Major Farm Products / Acreage & Cultivation Period																					
			Rainy season																					
			Sweet Potato			Soya Beans			Beans			G'nuts (shelled)			Cassava			Pigeon Peas			Vegetables			
			ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	
SOC/BLK/01	CHISINKHA	1																						
SOC/MHG/03	MPOYA	1																13	feb-march	50				
SOC/MHG/02	MPOTOLA	1																			0.3	oct-jan	75	
SOC/MHG/01	DAUDA	1																						
SOC/MH/05	CHIKOJA	11				4	nov-march	140																
SOC/MH/04	MACHEMBA	11																						
SOC/MH/03	SABILI	11	10	dec-march	110						7	nov-march	250									3	nov-march	120
SOC/MH/02	MACHENJE	11																						
SOC/MH/01	KAMPHANDE	10																						

Village Code	Name of Vge	WRA	Major Farm Products / Acreage & Cultivation Period																							
			Rainy season									Dry Season														
			Irish Potatoes			Other			Maize			Rice			Sweet Potato			Soya Beans			Beans			G'nuts		
			ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg
SOC/BLK/01	CHISINKHA	1							26	may-dec	50															
SOC/MHG/03	MPOYA	1							10	aug-nov	36				0.5	june-sept	125									
SOC/MHG/02	MPOTOLA	1							0.3	mar-dec	40															
SOC/MHG/01	DAUDA	1							5	sept-nov	50															
SOC/MH/05	CHIKOJA	11				250	nov-apr	200																		
SOC/MH/04	MACHEMBA	11							3	aug-dec	125															
SOC/MH/03	SABILI	11							3	jun-sept	100															
SOC/MH/02	MACHENJE	11							2.5	march-dec	100															
SOC/MH/01	KAMPHANDE	10							24	may-nov	72				1.2	may-nov	150				1.92	may-dec	250			

CHAPTER 4 SOCIO-ECONOMIC SURVEY

Village Code	Name of Vge	WRA	Major Farm Products / Acreage & Cultivation Period																						
			Dry Season									Rain fed area:													
			Cassava			Pigeon Peas			Vegetables			Irish Potatoes			Other			Maize (ha)	Rice(ha)	Tobacco (ha)	Cotton (ha)	Coffee (ha)	Irish potato (ha)	Sweet potato (ha)	Cassava (ha)
			ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg	ha	Duration	MK/kg								
SOC/BLK/01	CHISINKHA	1																50.26			30.375			50.625	50.625
SOC/MHG/03	MPOYA	1	10	april-june	140	20	june-aug	160	20.5	oct-dec	150							9		5					
SOC/MHG/02	MPOTOLA	1							0.3	oct-dec	100							0.5			1				
SOC/MHG/01	DAUDA	1				5	aug-nov	150	0.1	sept-oct	80				okra 0.1	sept- oct	300	36.2						15.8	
SOC/MH/05	CHIKOJA	11																280							
SOC/MH/04	MACHEMBA	11																1508.5	2				1	754.25	1.5
SOC/MH/03	SABILI	11							0.6	sept-nov	80							18						10	
SOC/MH/02	MACHENJE	11								march-dec	100							20		8	5				
SOC/MH/01	KAMPHANDE	10	0.4	may-dec	200				10	may-dec	115							548			7			10	548

Village Code	Name of Vge	WRA	Major Farm Products / Acreage & Cultivation Period					Mode of Irrigation																	
			Rain fed area:					Irrig. Facility & water source			Reservoir and Catchment Information														
			Beans (ha)	Groundnut (ha)	Sunflower (ha)	vegetable (ha)	Others (ha) [specify]	Reservoir/Pond (River Name)	Intake weir (River Name)	Side intake (River Name)	Dugwell		Reservoir Catchment area (km2)	Reservoir/pond avg area (m2)	Reservoir/Pond Avg depth (m)	Intake weir/ Intake Catchment Area (km2)	Reservoir/pond embarkment type			Reservoir/Pond location					
											Average Size	Number of dug wells					Earth	Masonry	Others (specify)	Easting	Northing	Altitude (m)			
SOC/BLK/01	CHISINKHA	1		50.625		50.625	pegeion peas(50.625)			shire															
SOC/MHG/03	MPOYA	1								chagwa															
SOC/MHG/02	MPOTOLA	1		0.5			pegeion(0.5)			likwenu															
SOC/MHG/01	DAUDA	1					pegeion peas0.1						6												
SOC/MH/05	CHIKOJA	11		280			3	matemba	matemba					20	15										
SOC/MH/04	MACHEMBA	11	2.00	754.25			2	luchimwa			1.8M deep	2													
SOC/MH/03	SABILI	11	7.00	18				namangadwe						1											
SOC/MH/02	MACHENJE	11		20			20 soya (20)			nasenga			3												
SOC/MH/01	KAMPHANDE	10									6M	110													

CHAPTER 4 SOCIO-ECONOMIC SURVEY

Village Code	Name of Vge	WRA	Mode of Irrigation																				
			Gravity fed system											Motorised Pump System									
			Intake weir/Intake location			Intake weir/Intake - type	Intake weir/ intake structure type			Main Canal total length (m)	material of the canal	Minimum cross section		Longitudinal gradient along the point (%)	Water rights	Annual payment (MK/year)	Water Source		Number of Pumps	Area irrig. (ha)	Monthly pumped water volume at critical time (m3/m/pump)	Water rights	Annual Payment (MK/Yr)
			Easting	Northing	Altitude (m)	Permanent; Temporary	Concrete/Masonry ; Local materials	Others (specify)	Height (cm)			width (cm)	River; Lake/Pond				Others (Specify)						
SOC/BLK/01	CHISINKHA	1																					
SOC/MHG/03	MPOYA	1							5000	earth		17	27		unregistered								
SOC/MHG/02	MPOTOLA	1	750219	8333320	513				1	earth, brick lin		14.5	5		unregistered		likwenu		1	9		unregistered	
SOC/MHG/01	DAUDA	1	76717	8328663	674	permanent	concrete		600	concrete		25	75		unregistered								
SOC/MH/05	CHIKOJA	11																					
SOC/MH/04	MACHEMBA	11							200	earth		30	75										
SOC/MH/03	SABILI	11																					
SOC/MH/02	MACHENJE	11																					
SOC/MH/01	KAMPHANDE	10																					

Village Code	Name of Vge	WRA	Mode of Irrigation																	Market and Research					
			Treadle Pump System							Water Can System					General Association					How is market sourced		How do you sell your products			
			Water Source		Number of Pumps	Area irrig. (ha)	Monthly pumped water volume at critical time (m3/m/pump)	Water rights	Annual Payment (MK/Yr)	Water Source		Area irrig. (ha)	Water rights	Annual Payment (MK/Yr)	Availability of Farmers Associations	In case of 'Yes' Role of association (specify)	Membership		Annual membership fee of association (MK/yr)	Maintenance work for weir/canal	In case of yes days/month normally spend (days)	Individual/Middlemen; Association	Others (Specify)	Distance to the Market (Km)	Individual; Association
			Well/groundwater; river/stream; Lake/pond	Other (specify)						Well/groundwater; river/stream; Lake/pond	Other (specify)						Male	Female							
SOC/BLK/01	CHISINKHA	1										none						none		individually		25	individually/cooperative/association		
SOC/MHG/03	MPOYA	1										none						none		individually			individually		
SOC/MHG/02	MPOTOLA	1										yes	to observe the benefits of the association	43	30	2000	yes	1	through association and clubs		1	through association and clubs			
SOC/MHG/01	DAUDA	1						ground water		3.2		yes					none		individually			individually			
SOC/MH/05	CHIKOJA	11										none					none		individually			individually			
SOC/MH/04	MACHEMBA	11	river/ stream		9	2	unregistered	ground water	river/stream	1	unregistered	none					none		individual/middlemen			individual/middlemen			
SOC/MH/03	SABILI	11	river/ stream		2	3	unregistered					none					yes	repairing tree	individual/middlemen			individual/middlemen			
SOC/MH/02	MACHENJE	11	ground water	river/stream	1	2.5	unregistered	ground water	river/ stream	0.8	unregistered	none					none		individual/middlemen			individual/middlemen			
SOC/MH/01	KAMPHANDE	10	ground water		20	73.2	registered					yes	to help and reach the poorly and the elde	30	18	500	yes		individual/middlemen			individual/middlemen			

CHAPTER 4 SOCIO-ECONOMIC SURVEY

Village Code	Name of Vge	WRA	Market and Research							Issues			Authenticity						
			How do you find market for:							Matters of Farming	Matters of Livelihood	General	Main Interviewee		Interviewee		Interviewer		Witness
			Maize	Rice	Tobacco	Cotton	Coffee	Sugarcane	Tea				Name	Occupation	Name	Occupation	Date	Name	Name
SOC/BLK/01	CHISINKHA	1							lack of reliable markets makes their produce to be sold at lower prices, climatic change is affecting their production, unreliable rainfall	they don't have social services like schools and hospitals, no safe drinking water		Alick	G. V. H			17/10/2012	Gladys mwenechanya	Charity	
SOC/MHG/03	MPOYA	1							the irrigation has a lot female farmers then men 20 against 1 because they were the first to join, the constructors of the scheme did not finish their work, they left the canals incomplete		they believe women are responsible for taking care of the household	hassani	farmer	s. Kumpania	farmer	2012/2/10	charity	Hezel	
SOC/MHG/02	MPOTOLA	1							people don't join the scheme because they don't have K2000 to pay for fuel, lack of inputs like fertilizer	farming helps them get their basic daily needs, last's year dry spell brought famine in the village, they are large (extended) families that are difficult to handle		G. V. H. Mpotola	G. V. H	L. Maurice	farmer	2012/2/10	Hezel mwachande	Chilimbaa	
SOC/MHG/01	DAUDA	1							the scheme has helped the people's livelihood greatly that some people are even keeping goats and pigs as benefits of farming, the canal it still has earth at the other length so it needs concrete		farmers depend on farming for their livelihood	Goodson	WUA	magileti	farmer	2012/4/10	charity	enelesi	
SOC/MH/05	CHIKOJA	11							most farmers in the village cultivate in Mozambique	huge population in the village due to polygamy	it is hard to access markets because of transport problems	Asiatu seka	farmer			13/10/2012	Hezel mwachande		
SOC/MH/04	MACHEMBA	11							people depend on agriculture they are only limited by the availability of fertilizer	farming is a tiresome job and people don't rest all year	they are happy when they have food and easily source money	chief	farmer			14/10/2012	mathews	mahindi	
SOC/MH/03	SABILI	11							they intercrop and that helps them to harvest a lot	the village population is large because of polygamy	high literacy levels they cannot read and write	Like	farmer			15/10/2012	Hezel mwachande	Charity	
SOC/MH/02	MACHENJE	11							they benefit from irrigation because they can sustain themselves through out the year, improved income, operating the treddle pump requires some extra energy.	sometimes they sell food to raise income, husbands sell the families harvest without telling their wives		Hamidi	farmer			2012/12/10	Gladys mwenechanya	H. Msamadya	
SOC/MH/01	KAMPHANDE	10							the scheme help the farmers overcome famine, the capitalise on the irrigated area because on the raised they spend a lot,	men complain on no family planning in the village leading to high population growth	appreciate to save the children for introducing the scheme, a lot of hard working farmers are benefiting they only wish they had a motorised engine for irrigation	Clippa	farmer	Christina	farmer	16/10/2012	Hezel mwachande	charity	

CHAPTER 5 IRRIGATION SCHEMES

Location ID	Name of Scheme / Site	Type of Deve.	Fund/Donor	Project Stage	Year/Operational	ISD	DISTRICT	EPA	Section	TA	VILLAGE	Coordinate		Topo.	Access rd. condition		Irri. Area			Beneficiary		
												Longi.	Lati.		Village	water source	Potential	Deve.	A.Irri.	Male	Female	Total
IRR/KU/06	JALO	TOTAL LANDCARE & BUA DWANGWA PROJECT	TOTAL LANDCARE THROUGH BUA DWANGWA PROJECT	OPERATIONAL	2003	KASUNGU	KASUNGU			KAOMBA	Jalo	564015	8577857	GENTLE	POOR	POOR	2.2	2.2	2.2	14	8	22
IRR/DA/01	Ndalama	Rehabilitation	European Union	Operation	2004	KASUNGU	DOWA	Chivala		Mkukula	Ndalama	589533	8486507	Gentle slope	Accessible	Accessible	2	2	2	80	26	106
IRR/DA/10	Bvitchetche B		ADB	Operation	2002	KASUNGU	DOWA	Bowe		Chakhaza	Chimungu	579118	8512067	Dambo	Accessible	Accessible	7	3.5	3.5	14	16	30
IRR/DA/04	Bvitchetche B	Rehabilitation	Malawi Gov	Not operational since 2007	2002	KASUNGU	DOWA			Chakhaza	Bvitchetche	547572	8515753	Gentle slope	Accessible		6	6	6	15	15	30
IRR/DA/07	Chanombo		MASAF	Operation	2004	KASUNGU	DOWA	Bowe		Chakhaza	Chanomba	572905	8539913	Dambo	Accessible	Accessible	11	4	4	18	10	28
IRR/DA/15	CHIMBETETE	Rehabilitation	Concern Universal	Operation	2007	KASUNGU	DOWA	Bowe		Chakhaza	Khazo	602453	8525762	Hilly	Accessible	Accessible	2	2	1	30	35	65
IRR/DA/17	Chimungu		GOVERNMENT	OPERATIONAL	2001	KASUNGU	DOWA	NACHISAKA		NSAKAMBWEA	CHIMBETETE	603730	8499451	HILLY	GOOD	GOOD	7	7	7	22	23	45
IRR/DA/03	Chimwendo	Rehabilitation	MASAF	Operation	2006	KASUNGU	DOWA	Bowe		Chakhaza	Mchere	571157	8539354	Dambo	Accessible	Accessible	4	2	2	32	22	54
IRR/DA/12	Chitwala 1	Rehabilitation	Malawi Gov	Not operational	2004	KASUNGU	DOWA	Madisi		Chakhaza	Chimwendo	559391	8518467	Dambo	Accessible	Accessible	2.5	2.5	2.5	10	3	13
IRR/DA/16	Chitwala 2		MASAF	Operational	2005	KASUNGU	DOWA			CHAKHAZA	Chitwala	575270	8539735	STEEPY	GOOD	POOR	9	9	4	32	22	54
IRR/DA/08	CHIYAMBI	Rehabilitation	USAID	Operation	2003	KASUNGU	DOWA	Nalunga		Msakambewa	Jonasi	609498	8497115	Hilly	Accessible	Not Accessible	7.6	6	7.6	43	39	82
IRR/DA/01	Ndalama	Rehabilitation	European Union	Operation	2004	KASUNGU	DOWA	Chivala		Mkukula	Ndalama	589579	8486510	Gentle slope	Accessible	Accessible	2	2	2	80	26	106
IRR/DA/14	Jonasi		MASAF	Not operational	2002	KASUNGU	DOWA			Nkhukula	Jonasi	591516	8484552	Dambo	Accessible	Accessible	8	8	0.8	70	50	120
IRR/KU/08	MITULA/KAMPHAND ILA		BUA/DWANGWA PROJECT	NOT OPERATIONAL	1995	KASUNGU	KASUNGU	MTUT HAMA		CHILOWAMAT AMBE	KAMPHANDIRA			HILLY	GOOD	GOOD	20	11.2	3.2	17	17	34
IRR/DA/09	Mkalalo	New site	Chief Litepo 2	Operation	2012	KASUNGU	DOWA	Madisi		Chakhaza	Litepo 2	551483	8513013	Dambo	Accessible	Not Accessible	0.7	0.5	0.7	13	18	31
IRR/DA/06	Mphamba		MASAF	Operation	2006	KASUNGU	DOWA	Madisi		Chakhaza	Mphamba	565240	8523433	Flat	Accessible	Not Accessible	2.5	2	2	21	22	43
IRR/DA/11	Tikwere	Rehabilitation	JICA/FIDP	Operation	1995	KASUNGU	DOWA	Nachisaka		Msakambewa	Kalikwembe	589656	8486236	Hilly	Accessible	Not Accessible	4	4	3	20	10	30
IRR/DA/15	Nango	Rehabilitation	Concern Universal	Operation	2007	KASUNGU	DOWA	Bowe		Chakhaza	Khazo	602453	8525762	Hilly	Accessible	Accessible	2	2	1	30	35	65
IRR/DZ/02	WINDU	REHABILITATIONAL	FIRST DONOR CARE/IRLAD	OPERATIONAL	2011	LILONGWE	DEDZA	KANYAMA		KASUMBU	MPHEZIWA	640402	8428613	DAMBO	POOR	GOOD	52	42	52	106	200	306
IRR/KU/03	KHAMALATHU		GOVERNMENT	OPERATIONAL	2005	KASUNGU	KASUNGU	SANTHE		SANTHE	DZINKAMBANI	549444	8520656	DAMBO	GOOD	GOOD	27	1	10	28	46	74
IRR/KU/12	CHIDOWOLA		MASAF	OPERATIONAL	2005	KASUNGU	KASUNGU	SANTHE		SANTHE	CHIKOKO	543970	8509886	DAMBO	GOOD	GOOD	10	10	8	48	52	100
IRR/KU/01	BVITCHETCHE		CONCERN WORLDWIDE	OPERATIONAL	2006	KASUNGU	KASUNGU	BOWE		CHAKHAZA	DAMBALIKA	575721	8539866	GENTLE	GOOD	GOOD	7.5	2.5	7.5	12	13	25
IRR/KU/05	KASINJENI	REHABILITATION	GOVERNMENT	OPERATIONAL	2011	KASUNGU	KASUNGU	CHIPALA		KAOMBA	KASINJENI	549454	8575596	GENTLE	GOOD	GOOD	11	3	8	29	7	36
IRR/LL/39	CHIKULUMAIWE	REHABILITATION	CAREMALAWI	OPERATIONAL	2003	LILONGWE	LILONGWE	MPENU		MAZENGERA	MVUWA	605415	8452306	DAMBO	GOOD	GOOD	10	3	1.5	10	30	40
IRR/MHG/01	MCHINGA	REHABILITATION	GOVERNMENT	OPERATIONAL	2011	MACHINGA	MACHINGA	MTIYA		MACHEMBA	Mchinga	767039	8418646	FLAT	GOOD	GOOD	1	0.8	0.68	2	7	9
IRR/MHG/08	UMODZI		FAO	OPERATIONAL	2009	MACHINGA	MACHINGA	MTUBWI		SITOLA	KAMWENDO	747814	8333575	FLAT	GOOD	GOOD	10	5.5	5	15	60	75
IRR/MHG/01	KACHERE		GOVERNMENT	OPERATIONAL	2003	MACHINGA	MACHINGA	MTUBWI		SITOLA	MPOTOLA	750142	8333225	DAMBO	GOOD	GOOD	9	9	9	18	37	52
IRR/MHG/02	CHANYUNGU		GOVERNMENT	OPERATIONAL	2008	MACHINGA	MACHINGA	NSANAMA		MLOMBA	Kasitu	767738	8329181	DAMBO	POOR	POOR	2.5	2.5	2.5	40	60	100
IRR/MHG/03	NAMOSE	REHABILITATION	MASAF	OPERATIONAL	2006	MACHINGA	MACHINGA	NSANAMA		MLOMBA	NAMOSE	764540	8329035		POOR	POOR	18	15	15	52	84	136
IRR/MHG/10	LUKONGORO		IGPWP BY EU	OPERATIONAL	2001	MACHINGA	MACHINGA	NSANAMA		MLOMBA	LUKONGORO	761901	8329796	HILLY	POOR	POOR	8.5	4.5	4	26	19	45
IRR/MH/09	Nsenjere		Malawi Gov	Operation	2004	MACHINGA	Mangochi	Nthiramanja		Chimwala	Machenje	724607	8383324	Valley	Accessible	Accessible	12	2.5	2.5	8	10	18
IRR/MH/03	Namankhandwe		NASFAM	Operation	2008	MACHINGA	Mangochi			Jalasi	Sabile	766313	8413262	Dambo	Unaccessible	Unaccessible	7	1.6	1.6	4	13	17
IRR/MH/04	Nankhali		Save the Children	Operation	2006	MACHINGA	Mangochi	Mbwadzulu		Nankhumba	Mwenda	698513	8437681	Lake	Accessible	Bad	35	35	32	23	27	50
IRR/KK/02	KASITU		GOVERNMENT	OPERATIONAL	1986	SALIMA	NKHOTAKOTA			KAFUZIRA	KASINJENI	609743	8638955	DAMBO	GOOD	GOOD	100	55	55	82	54	136
IRR/KK/01	CHIKANZO		GOVERNMENT	NOT OPERATIONAL	2006	SALIMA	NKHOTAKOTA	NKUNGA		KANYENDA	Chikanzo	624670	8598051	DAMBO	GOOD	POOR	7	5	5	7	13	20
IRR/KK/01	MPAMANTA	REHABILITATION	CHAMWABVI(FARMER PRESIDENT)	OPERATIONAL	1976	SALIMA	NKHOTAKOTA			MATENGACHANZI	Mpamantha	636009	8553518	DAMBO	GOOD	GOOD	165	150	150	140	60	200
IRR/NTS/03	CHIPUKA	REHABILITATION	EU	REHABILITATION	2005	KASUNGU	NTCHISI	CHIPUKA		KALUMO	CHIPUKA	592820	8520919	GENTLE	GOOD	GOOD	15	10.5	3	22	22	44
IRR/NTS/05	CHILANGAMWALE		MASAF/CARE MALAWI	OPERATIONAL	2002	KASUNGU	NTCHISI	MALOMO		CHILOKO	Chingalamwa	591064	8554748	HILLY	GOOD	GOOD	8	5	8	38	30	68
IRR/NTS/01	CHILANGAMWALE 1	REHABILITATION	MASAF AND CARE MALAWI	OPERATIONAL	2002	KASUNGU	NTCHISI	MALOMO		CHILOKO	LIWENGA	591064	8554748	HILLY	GOOD	GOOD	12	5	12	38	30	68
IRR/NTS/04	KAOMBE		FAO	OPERATIONAL	2005	KASUNGU	NTCHISI	CHIKWATULA		MALENGA	CHAWAWA	602335	8525205	HILLY	POOR	POOR	14	8	8			40
IRR/RU/02	ZULUKELE	NEW SITE	WORLD BANK/FAD	OPERATIONAL	2010	MZUZU	RUMPHI	KATOWO		KATUBI	KHUTAMAJI	552319	8801633	DAMBO	DIFFICULT	DIFFICULT	45.1	1.5	43.6	204	111	315
IRR/RU/19	MZOKOTO		GOVERNMENT	OPERATIONAL	2008	MZUZU	RUMPHI	MHUJU		MWANKHUNIKIRA	Mzokoto	611391	8795124	DAMBO	GOOD	BAD	6	4	2.5	11	8	19
IRR/SA/04	CHILUMBA		AFRICAN DEVELOPMENT BANK	OPERATIONAL	2000	SALIMA	SALIMA	MATENJE		MSOSA	NYANGULU	649985	8503475	DAMBO	GOOD	GOOD	9.9	7	9.9	22	40	62

CHAPTER 5 IRRIGATION SCHEMES

Location ID	Name of Scheme / Site	water source			Coordinate		WRA	Technology			Water Right	Gravity		No. of Motorised p.				No. of T/pump							
		main	sub	Name	Longi.	Lati.	1-17	1	2	3		Type of Weir	Sediment	old avail	new avail	total	old installed	new installed	total	old avail	new avail	total	old installed	new installed	total
IRR/KU/06	JALO	RIVER		DWANGWA	564015	8577857		MOTORISED/TREADLE PUMP																	
IRR/DA/01	Ndalama	River	Byanzi	Byanzi	8486507	589533	15	Gravity																	
IRR/DA/10	Bvitchetche B	Reservioir		Chimungu				Motorised																	
IRR/DA/04	Bvitchetche B	River		Bua	8515797	547468	15	Motorised																	
IRR/DA/07	Chanombo	River		Bua	8540066	572937	15	Motorised																	
IRR/DA/15	CHIMBETETE	River		Bua	8540698	576122	15	Treadle Pump	watering Cane																
IRR/DA/17	Chimungu	RIVER		CHAGUDU	603869	8499540																			
IRR/DA/03	Chimwendo	River		Bua	8539409	571146	15	Motorised	Treadle Pump																
IRR/DA/12	Chitwala 1	Well			8518443	559377	15	Treadle Pump																	
IRR/DA/16	Chitwala 2	RIVER		BUA	575290	8539757		MOTORISED																	
IRR/DA/08	CHIYAMBI	Katete	Katete	Katete	8497296	609274	15	Gravity																	
IRR/DA/01	Ndalama	River	Byanzi	Byanzi	8486507	589533	15	Gravity			Unregistered											0			
IRR/DA/14	Jonasi	Nango		Nango	8484541	591526	15	Gravity																	
IRR/KU/08	MITULA/KAMPHANDILA	RIVER		BUA	851957	8547015		MOTORISED																	
IRR/DA/09	Mkalalo	Kang'ona River		Kang'ona	8513006	551444	15	watering Cane																	
IRR/DA/06	Mphamba	River		Kasangadzi	8523433	565240	15	Motorised			Unregistered												0		
IRR/DA/11	Tikwere	River		Lingadzi	8495851	604499	15	Gravity			Unregistered	Permanent/Concrete											0		
IRR/DA/15	Nango	River		Bua	8540698	576122	15	Treadle Pump	watering Cane																
IRR/DZ/02	WINDU	RIVER		WINDU	640402	8428613		GRAVITY																	
IRR/KU/03	KHAMALATHU	RIVER		BUA	549068	8521178		MOTORISED/BASIN																	
IRR/KU/12	CHIDOWOLA	RIVER		BUA	543970	8509886		MOTORISED																	
IRR/KU/01	BVITCHETCHE	RIVER		BUA	575764	8540013		MOTORISED PUMP/TREADLE PUMP.																	
IRR/KU/05	KASINJENI	RIVER		DWANGWA	549350	8575840		MOTORISED																	
IRR/LL/39	CHIKULUMAIWE	RIVER		CHIKULUMA	605415	8452306																			
IRR/MHG/01	MCHINGA	WELL			7669761	8418672		TREADLE PUMPS/WATERING CANE																	
IRR/MHG/08	UMODZI	RIVER		LIKWENU	747991	8330590		MOTORISED																	
IRR/MHG/01	KACHERE	RIVER		LIKWENU	750219	8333320		MOTORISED																	
IRR/MHG/02	CHANYUNGU	RIVER		CHANYUNGU	767738	8329181		GRAVITY																	
IRR/MHG/03	NAMOSE	RIVER		NAMINYANG	764540	8329035		GRAVITY																	
IRR/MHG/10	LUKONGORO	RIVER		SAMBUZI	761422	8329437		GRAVITY			YES	EARTH													
IRR/MH/09	Nsenjere	River	River	Chiulika	8383338	724599	11	Gravity	Treadle Pump																
IRR/MH/03	Namankhandwe	River		Namankhandwe	8413242	766322	11	Treadle Pump			Unregistered												10	2	12
IRR/MH/04	Nankhali	Well			8437651	698521	10	Treadle Pump			Unregistered												4		4
IRR/KK/02	KASITU	RIVER		KASITU	609644	8638718		GRAVITY																	
IRR/KK/01	CHIKANZO	RIVER		WALEMERA	624670	8598051		TREADLE PUMP																	
IRR/KK/01	MPAMANTA	RIVER		MNDIRA	632420	8553965		GRAVITY																	
IRR/NTS/03	CHIPUKA	RIVER		MAMINA	592820	8520919		GRAVITY																	
IRR/NTS/05	CHILANGAMWALE	RIVER	SPRING	CHILANGAM	591064	8554748		CANALISATION																	
IRR/NTS/01	CHILANGAMWALE I	RIVER		CHILANGAM	591064	8554748		MOTORISED																	
IRR/NTS/04	KAOMBE	RIVER			602335	8525205		GRAVITY																	
IRR/RU/02	ZULUKELE	RIVER		HEWE	552317	88101634		GRAVITY																	
IRR/RU/19	MZOKOTO	RIVER		S.RUKURU	611416	8795139		TREADLEPUMP																	
IRR/SA/04	CHILUMBA	LAKE		LAKE MALA	650689	8503475		MOTORISED																	

CHAPTER 5 IRRIGATION SCHEMES

Location ID	Name of Scheme / Site	Watering can		Canalisation			Water Delivery			Year		Facilities condition		IWUA/ Club	Crop		Data of Input	ORIGINAL DESIGN	Remarks
		Type?	Cans used	length/m	lifting	Quantity	Type	AVAILABLE FOR IRRIGATION	length/m	Completion	Rehabili.	Condi.	Rehabili.		Major	Dry season			
IRR/KU/06	JALO																		
IRR/DA/01	Ndalama																		
IRR/DA/10	Bvitchetche B																		
IRR/DA/04	Bvitchetche B																		
IRR/DA/07	Chanombo																		
IRR/DA/15	CHIMBETETE																		
IRR/DA/17	Chimungu																		
IRR/DA/03	Chimwendo																		
IRR/DA/12	Chitwala 1																		
IRR/DA/16	Chitwala 2																		
IRR/DA/08	CHIYAMBI																		
IRR/DA/01	Ndalama			600	0.16	1	Canal	2	600	2004	NA	Moderate	NA	Unregistered	Maize, Beans, Irish Potatoes	Maize, Beans, Pigeon peas, Veg.		NA	Shortage of water in Byanzi river disturbs irrigation. There is a need for farm equipment like tractors and motorized pumps
IRR/DA/14	Jonasi																		
IRR/KU/08	MITULA/KAMPHANDILA																		
IRR/DA/09	Mkalalo																		
IRR/DA/06	Mphamba			350					350	2002		Poor		Registered	Maize, Vegetables	Maize, Fruits, Banana, Oranges, Tomatoes, Onions			The motorized pump that was given to them by Min of Agric was taken back by the ministry
IRR/DA/11	Tikwere			2500						1993		Good	Every year	Unregistered	Maize	Maize, Irish Potatoes, Veg.		NA	Canals are reconstructed every year because of Siltation
IRR/DA/15	Nango																		
IRR/DZ/02	WINDU																		
IRR/KU/03	KHAMALATHU																		
IRR/KU/12	CHIDOWOLA																		
IRR/KU/01	BVITCHETCHE																		
IRR/KU/05	KASINJENI																		
IRR/LL/39	CHIKULUMAIWE																		
IRR/MHG/01	MCHINGA																		
IRR/MHG/08	UMODZI																		
IRR/MHG/01	KACHERE																		
IRR/MHG/02	CHANYUNGU																		
IRR/MHG/03	NAMOSE																		
IRR/MHG/10	LUKONGORO						PIPE	4.5ha	63	2001		POOR		UNREGESTERED	MAIZE	MAIZE, TOMATO, VEGETABLES			REHABILITATION IS NEEDED ESPECIALLY FOR THE WEIRS, PIPES AND CANAL
IRR/MH/09	Nsenjere																		
IRR/MH/03	Namankhandwe						Pipe	1.6	5	2008		Bad	NA	Unregistered	Maize, Tomatoes	Vegetables		NA	Worms destroy their crops as a result they are forced to grow Cabbages during dry season. The scheme has 12 pumps but only two are working, need to repair the other 10. The river is perennial hence the need to construct a weir to minimize labour spent on treadle pumps.
IRR/MH/04	Nankhali						Pipe	32	25	2008	NA	Bad	Need rehabilitation	Unregistered	Maize	Maize, Veg, Paprika, Bananas		NA	Only one treadle pump is working hence the need to repair the other. Scarcety of spare parts for treadle pumps
IRR/KK/02	KASITU																		
IRR/KK/01	CHIKANZO																		
IRR/KK/01	MPAMANTA																		
IRR/NTS/03	CHIPUKA																		
IRR/NTS/05	CHILANGAMWALE																		
IRR/NTS/01	CHILANGAMWALE I																		
IRR/NTS/04	KAOMBE																		
IRR/RU/02	ZULUKELE																		
IRR/RU/19	MZOKOTO																		
IRR/SA/04	CHILUMBA																		

CHAPTER 5 IRRIGATION SCHEMES

Location ID	Name of Scheme / Site	Type of Deve.	Fund/Donor	Project Stage	Year/ Operational	ISD	DISTRICT	EPA	Section	TA	VILLAGE	Coordinate		Topo.	Access rd. condition		Irr. Area			Beneficiary			
												Longi.	Lati.		Village	water source	Potential	Deve.	A.Irri.	Male	Female	Total	
IRR/ZA/01	LIKANGALA	REHABILITATION	IRLAD	OPERATIONAL	1969	MACHINGA	ZOMBA	LIKANGALLA		MWAMBO	BAMUSI	772695	8292100		DAMBO	GOOD	GOOD	405	397	397	900	485	1385
IRR/ZA/09	CHILIKO		GOVERNMENT	OPERATIONAL	1969	MACHINGA	ZOMBA	LIKANGALLA		MWAMBO	CHILIKO	770287	8292538		DAMBO	GOOD	POOR	23.3	23.3	20.3	51	46	97
IRR/ZA/15	MKANGA		FAO	NOT OPERATIONAL	2003	MACHINGA	ZOMBA	MPOKWA		MWAMBO	KIMU	770384	8287980		GENTLE	POOR	POOR	7	7	0	60	20	80
IRR/ZA/05	MAKONGOLO KALINO		GOVERNMENT	OPERATIONAL	2005	MACHINGA	ZOMBA	MALOSA		MALEMIA	KALINO	757623	8314248		HILLY	POOR	POOR	6	3	2.5	9	60	69
IRR/ZA/05	MAKONGOLO KALINO		GOVERNMENT	OPERATIONAL	2005	MACHINGA	ZOMBA	MALOSA		MALEMIA	KALINO	757623	8314248		HILLY	POOR	POOR	6	3	2.5	9	60	69
IRR/ZA/10	MIFUMO		GOVERNMENT	OPERATIONAL	2004	MACHINGA	ZOMBA	MALOSA		MALEMIA	MALEMIA.	754221	8313276		GENTLE	GOOD	POOR	25	20	12	2	18	20
IRR/ZA/03	NAKALES		GOVERNMENT.EU,CA DECOM	OPERATIONAL	2003	MACHINGA	ZOMBA	MALOSA		MALEMIA	NSOMA	754775	8313187		GENTLE	GOOD	POOR	4	3	2.5	3	27	30
IRR/ZA/04	CHIGUMUKILE		EU	OPERATIONAL	2006	MACHINGA	ZOMBA	MALOSA		MALEMIA	JAWUMA	754143	8310235		HILLY	GOOD	POOR	4	3	1.2	3	27	30
IRR/ZA/05	MAKONGOLO KALINO		GOVERNMENT	OPERATIONAL	2005	MACHINGA	ZOMBA	MALOSA		MALEMIA	KALINO	757623	8314248		HILLY	POOR	POOR	6	3	2.5	9	60	69
IRR/ZA/06	MWAIWATHU	REHABILITATION	EU	OPERATIONAL	2003	MACHINGA	ZOMBA	MALOSA		MALEMIA	MTAMBO	751264	8317114		GENTLE	GOOD	GOOD	8	6	6	10	20	30
IRR/ZA/06	TIYANJANE		CADECOM	OPERATIONAL	2005	MACHINGA	ZOMBA	MALOSA		MALEMIA	NANGUMBA	754065	8312161		HILLY	POOR	POOR	4	2.5	2.5	1	19	20
IRR/ZA/02	NAMIPINGO	REHABILITATION	EU	OPERATIONAL	2006	MACHINGA	ZOMBA	MALOSA		MALEMIA	Namipingo	753317	8312835		GENTLE	POOR	POOR	2	0.6	0.6	4	11	15
IRR/ZA/16	MISENJERE		VILLAGERS(CLUB)	OPERATIONAL	2009	MACHINGA	ZOMBA	MSONDOLE			KUNTHUMAJI	762729	8306433		DAMBO	POOR	POOR	10.5	10.5	9	15	6	21
IRR/ZA/22	KACHERE/ kalino		WORLD VISION	OPERATIONAL	2002	MACHINGA	ZOMBA	MPOKWA		MWAMBO	KIMU	771952	8296722		GENTLE	GOOD	GOOD	2.6	2.6	2.6	20	19	39
IRR/SA/04	CHILUMBA		AFRICAN DEVELOPMENT BANK	OPERATIONAL	2000	SALIMA	SALIMA	MATENJE		MSOSA	NYANGULU	649985	8503475		DAMBO	GOOD	GOOD	9.9	7	9.9	22	40	62
IRR/SA/03	NAKAZEDZA		FAO	OPERATIONAL	2001	SALIMA	SALIMA	KHOMBEDZA			Nakazedza	650689	8503340		GENTLE	GOOD	GOOD	12	5	5	21	16	37
IRR/SA/02	KAMBWIRI SELE	REHABILITATION	GOVERNMENT	OPERATIONAL	1994	SALIMA	SALIMA	MAKANDE		KALONGA	KAMBWIRI	650955	8478989		DAMBO	GOOD	GOOD	6.6	6.6	6.6	20	33	53
IRR/SA/01	KATUMBA		HORTICULTURE(MAL AWI GOVERNMENT PROJECT	OPERATIONAL	2007	SALIMA	SALIMA	KATELERA		KAMBWIRI	KATUMBA	656752	8466739		DAMBO	GOOD	GOOD	15	2	2	7	20	27
IRR/KU/09	CHIOZA		GOVERNMENT	OPERATIONAL	2000	KASUNGU	KASUNGU	CHULU			CHIOZA	534640	8576150		HILLY	GOOD	GOOD	30	30	12	32	53	85
IRR/KU/10	CHISULU		GOVERNMENT	NOT OPERATIONAL	1994	KASUNGU	KASUNGU	CHULU			Chisulu	538875	8576123		GENTLE	GOOD	GOOD	10	8	2	11	10	21
IRR/KU/11	KANYENDA		GOVERNMENT	OPERATIONAL	2003	KASUNGU	KASUNGU	CHIPALA			CHIPALA	550875	8576162		GENTLE	GOOD	GOOD	3.6	3.6	2.8	315	279	594
IRR/KU/02	MKALALO		GOVERNMENT	OPERATIONAL	2002	KASUNGU	KASUNGU	BOWE			CHAKHAZA	578908	8525236		GENTLE	POOR	POOR	7	1.5	7	17	33	50

CHAPTER 5 IRRIGATION SCHEMES

Location ID	Name of Scheme / Site	water source			Coordinate		WRA	Technology			Water Right	Gravity		No. of Motorised p.				No. of T/pump							
		main	sub	Name	Longi.	Lati.		1-17	1	2		3	Type of Weir	Sediment	old avail	new avail	total	old installed	new installed	total	old avail	new avail	total	old installed	new installed
IRR/ZA/01	LIKANGALA	RIVER		LIKANGALA	772695	8292100		GRAVITY																	
IRR/ZA/09	CHILIKO	RIVER		LIKANGALA	770287	8292538		GRAVITY/TREADLE PUMP																	
IRR/ZA/15	MKANGA	RIVER		THONDWE	770384	8287980																			
IRR/ZA/05	MAKONGOLO KALINO	RIVER		MAKONGOLO	757623	8314248		GRAVITY																	
IRR/ZA/05	MAKONGOLO KALINO	RIVER		MAKONGOLO	757623	8314248		GRAVITY																	
IRR/ZA/10	MIFUMO	RIVER		NAMIFUMO	754221	8313276		GRAVITY																	
IRR/ZA/03	NAKALES	SPRING		NAMITUKUTA				GRAVITY			YES			1	1										
IRR/ZA/04	CHIGUMUKILE	RIVER		SAMBAISA	754143	8310235		GRAVITY			YES	CONCRETE	NO SEDIMENT												
IRR/ZA/05	MAKONGOLO KALINO	RIVER		MAKONGOLO	757623	8314248		GRAVITY			YES	BRICKLINED	YES												
IRR/ZA/06	MWAIWATHU	RIVER			751264	8317114		GRAVITY			NO														
IRR/ZA/06	TIYANJANE	RIVER		MCHILAMWI	754065	8312161		GRAVITY			YES	CONCRETE													
IRR/ZA/02	NAMIPINGO	RIVER			753317	8312835		GRAVITY			NO														
IRR/ZA/16	MISENJERE	RIVER		MSENJERE	762729	8306433		TREADLE PUMPS			NO			1		1	1								
IRR/ZA/22	KACHERE/ kalino	RIVER		THONDWE				MOTORISED																	
IRR/SA/04	CHILUMBA	LAKE		LAKE MALAWI	650689	8503475		MOTORISED			NO			1	1	2									
IRR/SA/03	NAKAZEDZA	LAKE		LAKE MALAWI				GRAVITY			NO			1	1	2									
IRR/SA/02	KAMBWIRI SELE	ELECTRIC SUBMERSIBLE PUMP			651003	8479012					NO														
IRR/SA/01	KATUMBA	ELECTRIC SUBMERSIBLE PUMP			656594	8466719		GRAVITY			YES														
IRR/KU/09	CHIOZA	RIVER		CHISUWE	534640	8576150		MOTORISED/TREADLE PUMP			YES			1		1	1					8	36	8	
IRR/KU/10	CHISULU	DAMBO		VIMBIRU				GRAVITY																	
IRR/KU/11	KANYENDA	RIVER		DWAGWA				MOTORISED			NO			1	2	3									
IRR/KU/02	MKALALO	RIVER		MKALALO	578937	8525296		MOTORISED/TREADLE PUMP			NO			1		1						1		1	

CHAPTER 5 IRRIGATION SCHEMES

Location ID	Name of Scheme / Site	Watering can		Canalisation			Water Delivery			Year		Facilities condition		IWUA/ Club	Crop		Data of Input	ORIGINAL DESIGN	Remarks
		Type?	Cans used	length/m	lifting	Quantity	Type	AVAILABLE FOR IRRIGATION	length/m	Completion	Rehabili.	Condi.	Rehabili.		Major	Dry season			
IRR/ZA/01	LIKANGALA																		
IRR/ZA/09	CHILIKO																		
IRR/ZA/15	MKANGA																		
IRR/ZA/05	MAKONGOLO KALINO																		
IRR/ZA/05	MAKONGOLO KALINO																		
IRR/ZA/10	MIFUMO																		
IRR/ZA/03	NAKALES						CANAL	3000	2003	EVERY YEAR.	POOR	CANAL NOT IN GOOD CONDITION	UNREGESTERED	MAIZE	TOMATOES, VEGETABLE		NOT AVAILABLE	SOMETIME TIME WATER SHORTAGE IS EXPERIENCED DUE TO SLAGE.THEY ALSO LACK COORDINATION BUT GENERALLY THINGS ARE GOING ON WELL AT THE SCHEME	
IRR/ZA/04	CHIGUMUKILE						CANAL	1.2ha	2006	2012	POOR	PROBLEM WITH WATER	UNREGESTERED	MAIZE	SOYA,VEGETABLES,MAIZE			THIS YEAR THE MAIZE AT THE SCHEME DID NOT DO WELL DUE TO INSUFFICIENT WATER SUPPLY	
IRR/ZA/05	MAKONGOLO KALINO						PIPE	2.5ha	2005	2012	POOR	BOXES	REGESTERED	MAIZE	CABBAGE,MAIZE,TOMATOES	AVAILABLE	ABLE TO USE THE SAME IRRIGATION SCHEME TWICE A SEASON BECAUSE OF ITS TOPOGRAPHY		
IRR/ZA/06	MWAIWATHU						CANAL	6ha	2004	2006	AVERAGE	NO	UNREGESTERED	MAIZE	MAIZE TOMATOES VEGETABLES	AVAILABLE	THEY HAVE A LONG CANAL WHICH IS NOT ALINED HENCE THE WATER SINKS BEFORE REACHING THE FIELD		
IRR/ZA/06	TIYANJANE						CANAL&PIPE	2.5ha	178PIPE&175	2005		GOOD	REGESTERED	MAIZE	MAIZE,TOMATOES,VEGETABLES	AVAILABLE	DURING DRY SEASON THEY EXPERIENCE SHORTAGE OF WATER BECAUSE THE RIVER DRY QUICKLY AND THEY DON'T HAVE A RESERVOIR		
IRR/ZA/02	NAMIPINGO						CANAL(EARTH)	0.6ha	818	2006	EVERY RAINY SEASON	GOOD	COMMUNAL	UNREGESTERED	MAIZE	BEANS,VEGETABLES	NOT AVAILABLE	NEED TO CONSTRUCT BRICK LINED CANAL TO IMPROVE WATER EFFICIENCY HENCE THEY USED EARTH CANAL WHICH CAUSE SLAGE	
IRR/ZA/16	MISENJERE						PIPE	0.004	15	2009		POOR		MAIZE	MAIZE,VEGETABLES				
IRR/ZA/22	KACHERE/ kalino						PIPE	2.6ha	108	2002	2005			UNREGESTERED	MAIZE	MAIZE	NOT AVAILABLE	THE RIVER HAS DRIED UP HENCE GIVING DIFFICULTIES TO FARMERS PRACTISING IRRIGATION AS THEY DO NOT HAVE ENOUGH WATER FOR IRRIGATION	
IRR/SA/04	CHILUMBA			320		4				2000	2011	POOR	CANAL.	UNREGESTERED	MAIZE,TOMATO,COTTON	SOYA,CASSAVA	NOT AVAILABLE	HIGH PRICE OF FERTILISER AND OTHER IRRIGATION EQUIPMENTS	
IRR/SA/03	NAKAZEDZA			200			CANAL	5ha		2001		POOR	NONE HAS BEEN DONE	UNREGESTERED	MAIZE	MAIZE,VEGETABLE	NOT AVAILABLE	NEED TO REHABILITATE CANAL,THEY NEED MORE PUMPS	
IRR/SA/02	KAMBWIRI SELE			400		2	CANAL	6.6ha	400	1994	2011	GOOD	YET TO FINISH OFF CANAL ALIGNING	UNREGESTERED	MAIZE,SWEET POTATOES, TOMATOES, CASSAVA,VEGETABLES	MAIZE		THE SCHEME WAS INTIALLY DEVELOPED FOR THE USE OF SPRINKLER BUT NOW IT IS BEENG MODIFIED FOR SHALLOW/GRAVITY BUT WITHH THE SAME ELECTRIC SUBMERSIBLE PUMP AND CURRENTLY REHABILITATION HAS ONLY BEEN DONE WITH HACTARAGE OF 3.3ha WHERE MAIZE HAS BEEN PLANTED	
IRR/SA/01	KATUMBA			520		4	SHALLOW THROUGH SIPHONES	2ha	520	2007	2012	GOOD	SOME CANAL ARE BEING REHABILITATED	REGESTERED	MAIZE,GROUNDT,SCOTTON	MAIZE		THE SCHEME USES ELECTRIC SUBMERSIBLE PUMPS FOR IRRIGATION AND THAT THEY ARE AFFECTED WITH HIGH COST OF ELECTRICTY MORE ESPECIALLY WHEN PUMPING WATER FROM UNDERGROUND	
IRR/KU/09	CHIOZA		85							2008	NOT YET COMPLETE			UNREGESTERED	MAIZE,TOMATOES	MAIZE TOMATOES		JICA STARTED CONSTRUCTION OF SOME SECONDARY CANAL WITHIN THE SCHEME IN 2008 BUT THE PROJECT WAS NOT SUCCESSFULLY FINISHED UP TO NOW	
IRR/KU/10	CHISULU									1960		POOR		UNREGESTERED				THE SCHEME IS NOT IN OPERATIONAL STAGE BECAUSE THERE IS NO WATER AVAILABLE FOR IRRIGATION DUE TO DEFORESTATION WHWREBY THE CATCHMENT AREA IS UNDER CULTIVATED	
IRR/KU/11	KANYENDA			0.56	0.25					2012	2012	GOOD		REGESTERED	MAIZE AND VEGETABLES	MAIZE AND VEGETABLES		THE SCHEME WAS HILLY AND 2012 IT HAS BEEN LEVELLED AND THE 2012 SEASON NO IRRIGATION ACTIVITY HAS BEEN DONE	
IRR/KU/02	MKALALO			300	0.1	1	PIPE LINE/CANAL	7ha	300	2002		MODERATE		UNREGESTERED	MAIZE,IRISH POTATOES	MAIZE,IRISH POTATOES,SWEET POTATOES,VEGETABLES	AVAILABLE/ DEPARTMENT OF IRRIGATION KASSUNGU ADD	IN NEED OF CEMENT FOR CANAL ALIGNMENT AND LACK OF FARM INPUTS	

CHAPTER 5 IRRIGATION SCHEMES

Location ID	Name of Scheme / Site	Type of Deve.	Fund/Donor	Project Stage	Year/Operational	ISD	DISTRICT	EPA	Section	TA	VILLAGE	Coordinate		Topo.	Access rd. condition		Irr. Area			Beneficiary		
												Longi.	Lati.		Village	water source	Potential	Deve.	A.Irri.	Male	Female	Total
IRR/NTS05	CHILANGAMWALE		MASAF/CARE MALAWI	OPERATIONAL	2002	KASUNGU	NTCHISI	MALOMO		CHILOKO	Chingalamwa	591064	8554748	HILLY	GOOD	GOOD	8	5	8	38	30	68
IRR/NTS04	KAOMBE		FAO	OPERATIONAL	2005	KASUNGU	NTCHISI	CHIKWATULA		MALENGA	CHAWAWA	602335	8525205	HILLY	POOR	POOR	14	6	4			40
IRR/NTS03	CHIPUKA	REHABILITATION	EU	REHABILITATION	2005	KASUNGU	NTCHISI	CHIPUKA		KALUMO	CHIPUKA	592820	8520919	GENTLE	GOOD	GOOD	15	10.5	3	22	22	44
IRR/NTS01	CHILANGAMWALE 1	REHABILITATION	MASAF AND CARE MALAWI	OPERATIONAL	2002	KASUNGU	NTCHISI	MALOMO		CHILOKO	LIWENGA	591064	8554748	HILLY	GOOD	GOOD	12	5	12	38	30	68
IRR/NU/01	GALA(MASASA)		CONCERN	OPERATIONAL	2007	LILONGWE	NTCHEU	NJOLOMOLE		MASASA	CHAPITA	654183	8404222	DAMBO	GOOD	GOOD	16	8	3.24	9	33	42
IRR/NU/86	Lisungwi 1/ davite	O & M	Government	Operation/Maintenance	2004	LILONGWE	NTCHEU	TSANGANO	Lisungwi	Mpando	Kabango 2	676221	8350930	Highland	Faire		10	9	9	25	20	45
IRR/BLK/04	PHIMBI		MASAF	NOT OPERATIONAL	2008	MACHINGA	BALAKA	MPILISI		NSAMALA,	PHIMBI	727957	8312725	DAMBO	GOOD	GOOD	10	8	0	11	2	13
IRR/MH/10	Salimu 1		European Union	Operation	2011	MACHINGA	MANGOCHI	MTIYA		Jalasi	Salimu 1	766385	8413533	Dambo	Accessible	Accessible	5	2.1	2.1	7	5	12
IRR/MH/12	Angatukosya/ aladi machemba		European Union	Operation	2007	MACHINGA	MANGOCHI	MTIYA		Jalasi	Nsafiri	767315	8417866	Dambo	Not Accessible	Not Accessible	6	4	0.8	10	5	15
IRR/MHG09	NAMOSE/ chanyangu	REHABILITATION	IGP BY EU	OPERATIONAL	2006	MACHINGA	MACHINGA	NSANAMA		MLOMBA	NAMOSE	763664	8328334	HILLY	POOR	POOR	10	0	5	31	15	46
IRR/MHG01	KACHERE		GOVERNMENT	OPERATIONAL	2003	MACHINGA	MACHINGA	MTUBWI		STOLA	MPOTOLA	750142	8333225	DAMBO	GOOD	GOOD	9	9	9	18	37	52

Location ID	Name of Scheme / Site	water source			Coordinate		WRA	Technology			Water Right	Gravity		No. of Motorised p.					No. of T/pump																	
		main	sub	Name	Longi.	Lati.		1-17	1	2		3	Type of Weir	Sediment	old avail	new avail	total	old installed	new installed	total	old avail	new avail	total	old installed	new installed	total										
IRR/NTS05	CHILANGAMWALE	RIVER	SPRING	CHILANGAM	591064	8554748		CANALISATION			NO	MANSONARY																								
IRR/NTS04	KAOMBE	RIVER			602335	8525205		GRAVITY				TEMPORALY																								
IRR/NTS03	CHIPUKA	RIVER		MAMINA	592820	8520919		GRAVITY			NO	PERMANENT																								
IRR/NTS01	CHILANGAMWALE 1	RIVER		CHILANGAM	591064	8554748		MOTORISED			NO	MANSONARY			1		1	1																		
IRR/NU/01	GALA(MASASA)	RIVER		GALA	654183	8404222		GRAVITY			NO																									
IRR/NU/86	Lisungwi 1/ davite	Stream/River		Lisungwi			3				In Process																									
IRR/BLK/04	PHIMBI	RIVER		SHIRE				MOTORISED			NO																									
IRR/MH/10	Salimu 1	Stream		Makande			11	Treadle Pump			Unregistered											12														12
IRR/MH/12	Angatukosya/ aladi machemba	Spring		Luchimwa			11	Gravity			Unregistered	NA	NA																						0	
IRR/MHG09	NAMOSE/ chanyangu	RIVER						GRAVITY			NO	MANSONARY																								
IRR/MHG01	KACHERE	RIVER		LIKWENU	750219	8333320		MOTORISED			NO																									

CHAPTER 5 IRRIGATION SCHEMES

Location ID	Name of Scheme / Site	Watering can		Canalisation			Water Delivery			Year		Facilities condition		IWUA/ Club	Crop		Data of Input	ORIGINAL DESIGN	Remarks
		Type?	Cans used	length/m	lifting	Quantity	Type	AVAILABLE FOR IRRIGATION	length/m	Completion	Rehabili.	Condi.	Rehabili.		Major	Dry season			
IRR/NTS05	CHILANGAMWALE			125	0.4	2	CANALISATION	8ha	125	2002	MODERATE			UNREGISTERED	MAIZE,IRISH POTATOES, VEGETABLES	MAIZE AND IRISH POTATOES		NOT AVAILABLE	THEY NEED PROPER REHABILITATION OF THE DAM SINCE IT GOT DESTROYED DURING LAST RAINY SEASON
IRR/NTS04	KAOMBE			4000							NONE	POOR		REGISTERED	MAIZE,IRISH POTATOES	MAIZE,IRISH POTATOES, BEANS,VEGETABLES			THERE IS TOO MUCH SILTATION IN THE CANAL
IRR/NTS03	CHIPUKA								2004			POOR		UNREGISTERED	MAIZE,VEGETABLES	MAIZE,VEGETABLES,IRISH POTATOES			2012 THE SCHEME HAS NOT BEEN FULLY OPERATIONAL DUE TO SHORTAGE OF WATER AND THE WEIR IS NOT WORKING PROPERLY
IRR/NTS01	CHILANGAMWALE 1			250	0.4	4	CANALISATION	12ha	250	2002	2004	MODERATE		UNREGISTERED	MAIZE,IRISH POTATOES AND VEGETABLE	MAIZE AND IRISH POTATOES			THEY NEED PROPER REHABILITATION OF THE DAM SINCE IT GOT DESTROYED DURING LAST RAINY SEASON
IRR/NU/01	GALA(MASASA)			1000			CANAL	3.24ha	1000	2007		GOOD		UNREGISTERED	MAIZE,IRISH POTATOES	TOMATOES, ONION,MAIZE		NOT AVAILABLE	
IRR/NU/86	Lisungwi 1/ davite									2004				Lisungwi	Irish potato	Irish potato			
IRR/BLK/04	PHIMBI									2009		POOR			MAIZE	MAIZE			NOT IN OPERATION BUT FARMERS STILL WANT BACK INTO OPERATIONAL STAGE
IRR/MH/10	Salimu 1						Pipe	0.8	25	2011	NA	Fair	Servicing the treadle pumps is needed	Unregistered	Maize	Maize		NA	Need for more pipes to irrigate the whole potential land.
IRR/MH/12	Angatukosya/ aladi machemba						Canal	6	2	2007	Every yr	Good	NA	Unregistered	Maize	Beans, Veg.		NA	The performance of the scheme is going down because most farmers can not afford farm inputs
IRR/MHG/09	NAMOSE/ chanyangu						PIPE	5ha	168	2007		GOOD		UNREGISTERED	MAIZE,TOMATO	MAIZE,TOMATO,MUSTARD,BEANS			THE SCHEME ALSO DO FISH FARMING
IRR/MHG/01	KACHERE						PIPE	9ha	25	2003	2010	GOOD		UNREGISTERED	MAIZE	MAIZE			REHABILITATION OF THE CANAL IS NEEDED, AND THE AREA IS AFFECTED WITHH RAINFALL SHORTAGES

CHAPTER 6 ESTATE SURVEY

Estate Code	Name of Estate	WRA	Estate Ownership		Location							Employee			Temporary Worker						Scale/Mode of Farming			
			Name of head of estate [if available]	Sex	District	Accessibility	Topo. Map (1 in 50,000)	GPS (Coordinates)				Total number	Male (no)	Female (no)	Total number during peak period	Male (no)	Female (no)	Total number during peak-off	Male (no)	Female (no)	Irrigated land (ha)	Irrigation Method	Rain fed land (ha)	Other major facilities [specify]
								Eastings	Northing	Altitude (m)	Location of Coordinates													
EST/DA/01	NGALA	15	FRANK DAMBULENI	Male	DOWA	1 Done	559821	8528965	1041	Vge Entrance	30	24	6	250	100	150	39	15	24	15	SPRINKLER	65	stores, staff houses, shed,	
EST/MC/01	WEZULO ESTATE	6	WEZULO TAILOSI	Male	MCHINJI	2 Done	504806	8463754	1089	Vge Entrance	5	4	1	20	15	5	5	4	1	4	MOTORISEI	8	buklings	
EST/MZ/01	JACOMA	7	JONS KAMPEZENI	Male	MZIMBA	2 Impossible	594556	8746326	1202	Vge Entrance	600	260	340	300	130	170	300	130	170	61	BASIN	483	N/A	
EST/NB/02	LIMPASA SUGAR CORPA	16	KIRET THAKRAR	Male	NKHATABAY	1 Done	634748	8711322	506	Vge Entrance	183	147	36	240	168	72	183	147	36	0	N/A	623	N/A	
EST/NB/01	KAWALAZI ESTATE	16	SUJEET KATOCHI	Male	NKHATABAY	1 Done	622302	8718336	610	Vge Entrance	2880	2328	552	3000	2424	576	2880	2328	552	771	gravity, spray	1724	N/A	
EST/BLK/01	TOLEZA	1	STAIN BROOKE	Male	BALAKA	2 Impossible	715894	8347825	659	Centre of Vge	40	25	15	600	400	200	100	50	50	5	SPRINKLER	400	N/A	
EST/DZ/01	KATENGEZA	3	DAVIE KATENGEZA	Male	DEDZA	1 Impossible	621093	8427212	1211	Centre of Vge	3	2	1	150	75	75	3	2	1	2.6	MOTORISEI	397	N/A	
EST/DZ/02	DUDU	3	JOHN TEMBO JNR	Male	DEDZA	1 Done	621796	8426347	1256	Centre of Vge	36	36	0	300	220	80	30	30	0	0.5	TREDDLE P	100	N/A	
EST/TO/09	GOTHA	14	K. CHI WALO	Male	THYOLO	1 Done	723972	8217863	892	Vge Entrance	300	180	120	700	420	280	200	120	80	0	N/A	600	N/A	
EST/TO/08	STECO	14	LALLION NAKHUPE	Male	THYOLO	1 Impossible	739019	8224743	763	Vge Entrance	500	200	300	500	200	300	80	30	50	80	MOTORISEI	370	factory	
EST/TO/07	NALI FARM	14	KHOLOMANA	Female	THYOLO	1 Impossible	747986	8229293	671	Vge Entrance	18	9	9	18	9	9	20	10	10	5	SPRINKLER	16	fish pond, chicken kraal	
EST/TO/06	CHILANGOMA	14	NYAMULA	Male	THYOLO	1 Impossible					347	201	146	426	280	164	20	16	4	58.6	SPRINKLER	58.6	N/A	
EST/TO/05	NAMINGOMBA	14	SULUMA	Male	THYOLO	1 Done	723266	8225170	1060	Centre of Vge	880	616	264	1628	1140	488	390	117	273	0	N/A	127.5	Tea processing factory	
EST/TO/04	NAMAPANGA	14	A. LIKHOMO	Male	THYOLO	2 Impossible					568	398	170	914	640	274	601	180	421	9	SPRINKLER	109.8	N/A	
EST/TO/03	THUNGA	14	MAKUMBA	Male	THYOLO	1 Done	770953	8229674	1193	Centre of Vge	604	382	223	704	432	272	604	382	222	99.5	SPRINKLER	365.22	N/A	
EST/TO/02	MPENI	14	JOLLY MTHETHIWA	Male	THYOLO	1 Done	719877	8228462	1081	Centre of Vge	826	576	250	1000	676	324	826	576	250	208.5	OVER HEAL	573	N/A	
EST/TO/01	SATEMWA	14	CARTCART KAY	Male	THYOLO	1 Done	722572	8221086	956	Vge Entrance	1900	1200	700	600	400	200	300	200	100	45	OVER HEAL	900	N/A	
EST/CK/01	KASINTHULA CANE GR	1	KENT KASITOMU	Male	CHIKHWAWA	1 Impossible	694434	8221546	82	Vge Entrance	592	581	11	2000	1650	350	482	317	160	1155	FURROW, S	1155	N/A	
EST/MJ/12	NAMPHIMBA	14	ROB GIBSON	Male	MULANJE	1 Impossible	770975	8221223	610	Centre of Vge	264	177	87	209	136	73	49	36	13	132.1	OVERHEAD	55.9	N/A	
EST/MJ/11	BROOMFIELD	14	DIWA	Male	MULANJE	1 Impossible	785640	8220955	621	Vge Entrance	750	500	250	950	634	316	750	500	250	156	SPRINKLER	224	N/A	
EST/MJ/10	LAUDER DALE	14	B. MAILOSI	Male	MULANJE	1 Impossible	771165	8224422	672	Vge Entrance	319	213	106	1300	876	424	801	586	215	0	N/A	470	Tea processing factory, Ware house	
EST/MJ/09	GLENARCHY	14	CHISE	Male	MULANJE	2 Impossible	765879	8230971	674	Centre of Vge	214	186	28	700	420	280	380	152	228	85	SPRINKLER	193	N/A	
EST/MJ/08	THORN WOOD	14	M. CHIPHIKO	Male	MULANJE	1 Impossible	781300	822401	675	Centre of Vge	234	176	58	839	549	290	437	254	183	0	N/A	374.7	Dispensary	
EST/MJ/07	CHISAMBO	14	W. KUMUNDAYAYI	Male	MULANJE	1 Done	788615	8221663	662	Vge Entrance	350	210	140	900	540	360	450	270	180	52	SPRINKLER	260	Tea factory	
EST/MJ/06	LIKANGA	14	Z. MAGANGA	Male	MULANJE	1 Done	776646	8221353	609	Vge Entrance	170	102	68	700	420	280	400	240	160	44	SPRINKLER	212	Tea factory	
EST/MJ/05	RUO	14	K. CHISALE	Male	MULANJE	1 Done	775640	8220955	621	Vge Entrance	241	211	30	1027	730	297	241	144	96	9.6	SPRINKLER	40	Tea factory	
EST/MJ/04	ESPERANZA	14	K. KANSANDWA	Male	MULANJE	1 Done	768106	8225653	644	Vge Entrance	250	150	100	900	540	360	300	180	120	50	SPRINKLER	280	Tea factory	
EST/MJ/03	ELDORADO	14	M. JULIUS	Male	MULANJE	1 Done	777838	8221094	625	Vge Entrance	350	210	140	700	420	380	500	300	200	90	SPRINKLER	347	N/A	
EST/MJ/02	SAYAMA	14	ROB GIBSON	Male	MULANJE	1 Impossible	772933	8221639	588	Centre of Vge	2526	2163	363	3026	2563	463	2526	2163	363	485	OVERHEAD	485	Tea factory	
EST/MJ/01	LUJERI	14	JIM MELROSI	Male	MULANJE	1 Done	784223	8226006	686	Centre of Vge	2281	1546	635	645	479	176	345	233	112	822	SPRINKLER	822	2 hydropower houses,	

CHAPTER 6 ESTATE SURVEY

Estate Code	Name of Estate	WRA	Major Farm Products/Acreage																												
			Irrigated Area (Rainy season)																												
			Maize				Cassava				Tobacco				Cotton				Sunflower				Coffee				Sugarcane				Tea
			ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha
EST/DA/01	NGALA	15																													
EST/MC/01	WEZULO ESTATE	6	1.6	5200	40	nov-mar																									
EST/MZ/01	JACOMA	7																													
EST/NB/02	LIMPASA SUGAR CORPA	16																					623	12460000	30	dec-Mrch					
EST/NB/01	KAWALAZI ESTATE	16																													706
EST/BLK/01	TOLEZA	1									150	2250000	120	nov-june																	
EST/DZ/01	KATENGEZA	3	20	70000	38	nov-april																									
EST/DZ/02	DUDU	3	25	87500	41	dec-june																									
EST/TO/09	GOTHA	14																													600
EST/TO/08	STECO	14																													
EST/TO/07	NALI FARM	14																													
EST/TO/06	CHILANGOMA	14																													58.6
EST/TO/05	NAMINGOMBA	14																													127.5
EST/TO/04	NAMAPANGA	14	109.8	384300	40	nov-april																									118.8
EST/TO/03	THUNGA	14																													365.22
EST/TO/02	MPENI	14																	85	4675	1900	nov- april									473
EST/TO/01	SATEMWA	14																													930
EST/CK/01	KASINTHULA CANE GRC	1	250	875000	38	nov-march																	905	18100000	30	feb-sept					
EST/MJ/12	NAMPHIMBA	14																													188
EST/MJ/11	BROOMFIELD	14																													
EST/MJ/10	LAUDER DALE	14																													470
EST/MJ/09	GLENARCHY	14																													193
EST/MJ/08	THORN WOOD	14																													374.7
EST/MJ/07	CHISAMBO	14																													312
EST/MJ/06	LIKANGA	14																													256
EST/MJ/05	RUO	14																													49.5
EST/MJ/04	ESPERANZA	14																													330
EST/MJ/03	ELDORADO	14																													437
EST/MJ/02	SAYAMA	14																													485
EST/MJ/01	LUJERI	14																													822

CHAPTER 6 ESTATE SURVEY

Estate Code	Name of Estate	WRA	Major Farm Products/Acreage																												
			Irrigated Area (Rainy season)												Irrigated Area (Dry Season)																
			Tea			Soya Beans				Maize				Rice				Tobacco				Chillies				Coffee				Sugarcane	
			Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)
EST/DA/01	NGALA	15																													
EST/MC/01	WEZULO ESTATE	6						1.2	5400	45	mar-july																				
EST/MZ/01	JACOMA	7																						56	57680	2000	nov-july				
EST/NB/02	LIMPASA SUGAR CORPA	16																													
EST/NB/01	KAWALAZI ESTATE	16	564800	400	nov-apr																										
EST/BLK/01	TOLEZA	1						1	3600	45	may-aug																				
EST/DZ/01	KATENGEZA	3				10	25000	200	nov-may																						
EST/DZ/02	DUDU	3																													
EST/TO/09	GOTHA	14	480000	400	nov-apr																										
EST/TO/08	STECO	14						15	52500	42	apr-aug																				
EST/TO/07	NALI FARM	14				10	25000	200	dec-april																						
EST/TO/06	CHILANGOMA	14	46880	400	nov-april																										
EST/TO/05	NAMINGOMBA	14	102000	400	nov-april																										
EST/TO/04	NAMAPANGA	14	95040	400	nov-april																										
EST/TO/03	THUNGA	14	292176	400	nov-april																										
EST/TO/02	MPENI	14	378400	400	nov-april																			85	42925	2000	april-nov				
EST/TO/01	SATEMWA	14	744000	400	nov-april																			15	7575	1900	april-jul				
EST/CK/01	KASINTHULA CANE GRC	1											250	937500	250	march-sept												905	18100000		
EST/MJ/12	NAMPIMBA	14	150400	400	nov-april																										
EST/MJ/11	BROOMFIELD	14																													
EST/MJ/10	LAUDER DALE	14	376000	400	Nov-april																										
EST/MJ/09	GLENARCHY	14	154400	400	dec-june																										
EST/MJ/08	THORN WOOD	14	299760	400	Nov-april																										
EST/MJ/07	CHISAMBO	14	249600	400	Nov-april																										
EST/MJ/06	LIKANGA	14	204800	400	Nov-april																										
EST/MJ/05	RUO	14	39600	400	Nov-april																										
EST/MJ/04	ESPERANZA	14	264000	400	Nov-april																										
EST/MJ/03	ELDORADO	14	349600	400	Nov-april																										
EST/MJ/02	SAYAMA	14	388000	400	dec-April																										
EST/MJ/01	LUJERI	14	657600	400	dec-April																										

CHAPTER 6 ESTATE SURVEY

Estate Code	Name of Estate	WRA	Major Farm Products/Acreage																													
			Irrigated Area (Dry Season)												Rain fed area																	
			Sugarcane		Tea				Soya Beans				pegon peas				Maize (ha)	Rice (ha)	Tobacco (ha)	Cotton (ha)	Coffee (ha)	Sugarca ne (ha)	Tea (ha)	Ground nuts (ha)	Cassava (ha)	Sunflow er (ha)	Vegetable (ha)	Beans (ha)	Soya beans (ha)	Sweet potato (ha)	Irish potato (ha)	Vegetable (ha)
			Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	yield (kgs)	unit price	duration																
EST/DA/01	NGALA	15													20																	
EST/MC/01	WEZULO ESTATE	6													1.6									1.8	0.8			1.2	1.8			
EST/MZ/01	JACOMA	7																														
EST/NB/02	LIMPASA SUGAR CORPA	16																														
EST/NB/01	KAWALAZI ESTATE	16																			706											
EST/BLK/01	TOLEZA	1																					100									
EST/DZ/01	KATENGEZA	3													20											10		8				
EST/DZ/02	DUDU	3													25									0.5	0.25							
EST/TO/09	GOTHA	14																														
EST/TO/08	STECO	14			50	40000	400	april-nov	5	25000	250	june-oct	5	30000	300	apri-aug	15				50	200			40			5				
EST/TO/07	NALI FARM	14																								10			5			
EST/TO/06	CHILANGOMA	14																				58.6										
EST/TO/05	NAMINGOMBA	14																				127.5										
EST/TO/04	NAMAPANGA	14			9	7200	400	sep-nov														118.8										
EST/TO/03	THUNGA	14																				365.22										
EST/TO/02	MPENI	14			123.5	98800	400	april-nov													85	596.5										
EST/TO/01	SATEMWA	14			30	24000	400	april-jul													15	930										
EST/CK/01	KASINTHULA CANE GRC	1			30	march-sept									250	250						905										
EST/MJ/12	NAMPHIMBA	14			132.1	105680	400	apr-nov														320										
EST/MJ/11	BROOMFIELD	14			156	124800	400	jul-nov														223										
EST/MJ/10	LAUDER DALE	14																				470										
EST/MJ/09	GLENARCHY	14			85	68000	400	june-dec														278										
EST/MJ/08	THORN WOOD	14																				374.7										
EST/MJ/07	CHISAMBO	14			52	41600	400	aug-nov																								
EST/MJ/06	LIKANGA	14			44	35200	400															300										
EST/MJ/05	RUO	14			9.6	7680	400	jun-nov														49.6										
EST/MJ/04	ESPERANZA	14			50	40000	400	jun-dec														380										
EST/MJ/03	ELDORADO	14			90	72000	400	june-dec														437										
EST/MJ/02	SAYAMA	14			485	388000	400	April-dec														485										
EST/MJ/01	LUJERI	14			822	657600	400	April-dec														822										

CHAPTER 6 ESTATE SURVEY

Estate Code	Name of Estate	WRA	Major Farm Products/Acreage					Mode of irrigation																					
			Rain fed area					Irrig. Facility & water source				Location of Reservoir/Pond			Catchment area or reservoir/pond (km ²)	Avg Area of Reservoir/ Pond (km ²)	Avg Depth of Reservoir/ Pond (m)	Catchment area of Weir/ intake (km ²)	Type of Reservoir/ pond Embankment		Location of intake weir/Intake			Type of Intake weir/ Intake Permanent; Temporary Structure					
			Nuts (ha)	pepion peas	cowpeas	macade mia	chillies	Reservoir/Pond		Borehole	Intake weir (River Name)	Intake (River Name)	Easting	Northing					Altitude (m)	Earth; Masonry	Other [specify]	Latitude	Longitude		Altitude (m)				
					Reservoir/ Pond	River Name																							
EST/DA/01	NGALA	15						Reservoir	bua																				
EST/MC/01	WEZULO ESTATE	6						Reservoir	bua			bua	504703	8463586	1084													Permanent Structure	
EST/MZ/01	JACOMA	7				3	2	Reservoir	kaweche														595564	8749721	1144		Permanent Structure		
EST/NB/02	LIMPASA SUGAR CORPA	16																											
EST/NB/01	KAWALAZI ESTATE	16				1018		Reservoir	kavuzi river				615606	8709662	634	10	8.4	1.5			Earth						Permanent Structure		
EST/BLK/01	TOLEZA	1																											
EST/DZ/01	KATENGEZA	3	5																										
EST/DZ/02	DUDU	3						Reservoir	linthipe 2				621796	8426347	1256														
EST/TO/09	GOTHA	14																											
EST/TO/08	STECO	14						Reservoir	kwakwazi							240	40	1.7			Earth								
EST/TO/07	NALI FARM	14		4				Reservoir	thuchila river																				
EST/TO/06	CHILANGOMA	14						Reservoir	mwandimwi																				
EST/TO/05	NAMINGOMBA	14																											
EST/TO/04	NAMAPANGA	14																											
EST/TO/03	THUNGA	14						Reservoir	thunga				719877	8228462	1081	200	3	5			Earth								
EST/TO/02	MPENI	14				15		Reservoir	mpeni				720861	8227812	1107		19.14	10			Earth								
EST/TO/01	SATEMWA	14						Reservoir	mzwazi				722572	8221086	956	1875	1.2	11			Earth								
EST/CK/01	KASINTHULA CANE GRC	1																										Permanent Structure	
EST/MJ/12	NAMPHIMBA	14																					771671	8220304	584		Permanent Structure		
EST/MJ/11	BROOMFIELD	14						Reservoir					785721	8223810	623						Earth								
EST/MJ/10	LAUDER DALE	14																											
EST/MJ/09	GLENARCHY	14																											
EST/MJ/08	THORN WOOD	14																											
EST/MJ/07	CHISAMBO	14																											Masonry
EST/MJ/06	LIKANGA	14																											
EST/MJ/05	RUO	14																											
EST/MJ/04	ESPERANZA	14																											
EST/MJ/03	ELDORADO	14																											
EST/MJ/02	SAYAMA	14																						773264	8222120	601			
EST/MJ/01	LUJERI	14																											

CHAPTER 6 ESTATE SURVEY

Estate Code	Name of Estate	WRA	Mode of irrigation											Annual Income				Annual Expenditure						
			Type of Intake weir/Intake Structure		Main Canal					Water Rights	Motorised Pump			Water Rights	Whole Income (MK)	Farming (MK)	Non-Farming		Whole Expenditure (MK)	Fertilizer (MK)				
			Concrete/masonry; Local Materials	Others [Specify]	Total Length (m)	Structure		Minimum cross section			Number of Pumps	Avg Vol. of monthly pumped water (m ³ /month/pump)	Grazing (MK)				Others [Specify] (MK)	Rainy season						
						Earth; Concrete; Masonry	Other [Specify]	Height (cm)	Width (cm)											Longitudinal gradient along the point (%)	River (name)	Lake/Pond (name)		
EST/DA/01	NGALA	15										Registered	bua											
EST/MC/01	WEZULO ESTATE	6	Concrete/Masonry		100	Concrete						Unregistered	bua		1	25000	Unregistered	2,500,000.00	2,500,000.00			1,730,000.00	560,000.00	
EST/MZ/01	JACOMA	7		steel pipe			steel pipe					Unregistered					Registered	67,675,000.00	59,875,000.00	7,800,000.00		29,411,000.00	18,312,000.00	
EST/NB/02	LIMPASA SUGAR CORPA	16										Unregistered					Unregistered	75,000,000.00				48,320,000.00	29,200,000.00	
EST/NB/01	KAWALAZI ESTATE	16	Concrete/Masonry									Unregistered	kawalazi		6		Registered	51,720,000,000.00	51,720,000,000.00			736,140,000.00		
EST/BLK/01	TOLEZA	1										Unregistered						100,000,000.00	50,000,000.00	50,000,000.00		20,000,000.00	10,000,000.00	
EST/DZ/01	KATENGEZA	3										Unregistered											-	
EST/DZ/02	DUDU	3										Unregistered	lithipe					Unregistered	5,382,800.00	532,800.00			240,000.00	240,000.00
EST/TO/09	GOTHA	14										Unregistered											-	
EST/TO/08	STECO	14			350							Unregistered	kwakwazi		3	15600	Unregistered	200,000,000.00	150,000,000.00		50,000,000.00	66,600,000.00	40,000,000.00	
EST/TO/07	NALI FARM	14										Unregistered	thuchila	a local [ond at the	1		Unregistered	6,200,000.00	6,000,000.00		200,000.00	3,000,000.00		
EST/TO/06	CHILANGOMA	14										Unregistered	mwandimwi		2		Unregistered	Not Provided					10,501,588.00	10,501,588.00
EST/TO/05	NAMINGOMBA	14										Unregistered					Unregistered	59,392,860.00	59,392,860.00			34,555,302.00	13,055,302.00	
EST/TO/04	NAMAPANGA	14										Unregistered	kaliwo		1		Registered	74,785,120.00	34,785,120.00			19,869,687.00	19,869,687.00	
EST/TO/03	THUNGA	14										Unregistered	mikasanje		2	48000	Registered	330,000,000.00				125,000,000.00	125,000,000.00	
EST/TO/02	MPENI	14										Unregistered	mpeni		3	72000	Registered	443,000,000.00				178,000,000.00		
EST/TO/01	SATEMWA	14										Unregistered	mswazi			129600	Unregistered						-	
EST/CK/01	KASINTHULA CANE GRC	1	Concrete/Masonry		2000	Concrete			700			Registered	shire		6		Unregistered	900,000,000.00	900,000,000.00			Not Provided		
EST/MJ/12	NAMPHIMBA	14	Concrete/Masonry									Unregistered	lichenya		9		Unregistered						-	
EST/MJ/11	BROOMFIELD	14										Unregistered					Unregistered	70,000,000.00	50,000,000.00	20,000,000.00		50,000,000.00		
EST/MJ/10	LAUDER DALE	14										Unregistered					Unregistered	318,000,000.00	318,000,000.00			223,500,000.00		
EST/MJ/09	GLENARCHY	14										Unregistered	likhubula/ linje		3		Registered	265,000,000.00	265,000,000.00			120,000,000.00		
EST/MJ/08	THORN WOOD	14										Unregistered					Unregistered						-	
EST/MJ/07	CHISAMBO	14										Unregistered	muluzi		1		Registered	500,000,000.00	500,000,000.00			203,000,000.00	38,000,000.00	
EST/MJ/06	LIKANGA	14										Unregistered	lichenya		1		Registered						-	
EST/MJ/05	RUO	14										Unregistered	ruo		1	24400	Registered	184,621,500.00				152,221,500.00		
EST/MJ/04	ESPERANZA	14										Unregistered	likhubula		1		Registered						-	
EST/MJ/03	ELDORADO	14										Unregistered	lichenya		8		Registered						-	
EST/MJ/02	SAYAMA	14										Unregistered	chanukha		2	700000	Registered	700,000,000.00	600,000,000.00		100000000 (timber s	131,800,000.00	68,900,000.00	
EST/MJ/01	LUJERI	14										Registered	lujeri		2	250000	Registered	123,900,000.00				123,900,000.00	77,500,000.00	

CHAPTER 6 ESTATE SURVEY

Estate Code	Name of Estate	WRA	Annual Expenditure									Balance	Issues			
			Fertilizer (MK)	Seed (MK)	Employment (MK)	Fuel for farming machines/pumps (MK)	Maintenance for farming machine/pumps (MK)	Feed for livestock	Shipping/ selling expenses	Estate consumption of farm products	Other costs	Annual Balance	Matters of Farming	Matters of Irrigation		
			Dry season													
EST/DA/01	NGALA	15														
EST/MC/01	WEZULO ESTATE	6	240,000.00		300,000.00	500,000.00	50,000.00			60,000.00	20,000.00	770,000.00	high cost of fuel, shortage of farming equipments like pumps	shortage of water in bua affecting their irrigation		
EST/MZ/01	JACOMA	7		5,379,000.00						1,720,000.00	3,600,000.00	400,000.00	38,264,000.00	marketing, failing to expand, because of insufficient water,	salaries are very low	
EST/NB/02	LIMPASA SUGAR CORPA	16			18,000,000.00	620,000.00	500,000.00						26,680,000.00	just started growing maize waiting for the sugar mill to be in the country	intends to have a maize field for their workforce	
EST/NB/01	KAWALAZI ESTATE	16	320,000,000.00	2,700,000.00	30,000,000.00	25,000,000.00			31,000,000.00	37,440,000.00	290,000,000.00	50,983,860,000.00		electricity bills are so expensive affecting irrigation		
EST/BLK/01	TOLEZA	1	10,000,000.00										80,000,000.00	community impact	the human resource department follows the government law as on minimum wage	
EST/DZ/01	KATENGEZA	3											-			
EST/DZ/02	DUDU	3											5,142,800.00	lack of capital to buy irrigation equipment, shortage of fuel affecting production		
EST/TO/09	GOTHA	14											-	they fail to irrigate because the closest river does not supply enough water		
EST/TO/08	STECO	14	20,000,000.00		2,000,000.00	900,000.00	500,000.00		1,000,000.00	700,000.00	1,500,000.00	133,400,000.00	generally good business aimed at improvin the social economy of the country			
EST/TO/07	NALI FARM	14	2,500,000.00	500,000.00									3,200,000.00	inputs are expensive and government extension workers targets small holder farmers only		
EST/TO/06	CHILANGOMA	14												lack of agricultral equipments like those used to pluck tea, because it is done manually most tea leaves are left unplucked		
EST/TO/05	NAMINGOMBA	14			5,000,000.00	15,000,000.00				1,500,000.00			24,837,558.00	low production in the dry season, low wages to employees	procurement of inputs, farm equipment and there spares is expensive	
EST/TO/04	NAMAPANGA	14											54,915,433.00	inadequate water for irrigation affecting production even in the rainy season		
EST/TO/03	THUNGA	14											205,000,000.00	climate change had affected irrigation because of unreliable water reserves	shortage of labour, people no longer prefer to work in the estates	
EST/TO/02	MPENI	14									178,000,000.00		265,000,000.00	climatic change affecting rainfall, rising costs of farm inputs, fuel hikes affecting production		
EST/TO/01	SATEMWA	14											-	low prices of produce aganist high cost of production, lack of water for irrigation making them depend on the rainfed area mainly	high labour lay-off durring off peak time making a lot of people jobless	
EST/CK/01	KASINTHULA CANE GRC	1												transport costs are high, power shortages affecting irrigation,	climate change affects production sice rains are not enough to meet the production demand	
EST/MJ/12	NAMPIMBA	14											-	price hikes of fuel, climatic change, lack of enough labour		
EST/MJ/11	BROOMFIELD	14									50,000,000.00	20,000,000.00			low pay to labourers,	
EST/MJ/10	LAUDER DALE	14									223,500,000.00	94,500,000.00		they don't irrigate because the water in muloza river is not enough		
EST/MJ/09	GLENARCHY	14									120,000,000.00	145,000,000.00		the rivers used for irrigation are drying up due to siltation		
EST/MJ/08	THORN WOOD	14											-	labour shortages due to high demand of labourer, climatic change has affected our production resulting to low yeikds		
EST/MJ/07	CHISAMBO	14	22,000,000.00		38,000,000.00		85,000,000.00					20,000,000.00	297,000,000.00	the pipes used for irigation are sometimes stolen by the villagers, sometimes even brocken		
EST/MJ/06	LIKANGA	14											-	they have no problem with farming only that the water water table is low affecting irrigation		
EST/MJ/05	RUO	14			4,621,500.00	144,000,000.00					3,600,000.00	32,400,000.00		the estate can only irrigate 9.6 hectares, shortage of water is affecting production; they may close shotly to wait for rains		
EST/MJ/04	ESPERANZA	14											-	there is plenty of water but they have no reserviour and tha affects irrigation activities		
EST/MJ/03	ELDORADO	14											-	upredictable rainfall pattern affecting the amount of crop in the field, shortage of irrigation facilities like pumps		
EST/MJ/02	SAYAMA	14	21,000,000.00			13,300,000.00			28,600,000.00			568,200,000.00	lack of water in the river, theft, shortage of electricity			
EST/MJ/01	LUJERI	14	2,800,000.00			29,500,000.00			14,100,000.00			-	climatic change affecting rainfall, affecting production like now they are irrigating whilst in the past they were not, decreasing water levels yearly			

CHAPTER 6 ESTATE SURVEY

Estate Code	Name of Estate	WRA	Issues		Authenticity					
			General	Main Interviewee		Interviewee		Interviewer		Witness (Name)
				Name	Occupation	Name	Occupation	Date	Name	
EST/DA/01	NGALA	15		F. dambuleni	supervisor			2012/11/10	F. manja	T. Phiri
EST/MC/01	WEZULO ESTATE	6	lack of certified markets of farm produce	wesual	farmer			13/10/2012	Monica Mfuto	T. Phiri
EST/MZ/01	JACOMA	7	the water source is a residual valley area and water is harvested is within. Marketing of farm produce is done in ilongwe and for farm products in mzuzu. An engine os 28 hsp s used to pump water from 6: am-3pm each day	Jones Kampezeni	General manager			2012/5/10	O. Marcello	D. mwenechanya
EST/NB/02	LIMPASA SUGAR CORPA	16	the government should protect the rivers we have, the government should waive the importation tax on the machinery they use for production	P. Nazombe	Project Manager			13/10/2012	D. mwenechanya	o. marcello
EST/NB/01	KAWALAZI ESTATE	16	they try as much as possible to maintain the labour ratios because on the other sed they are halped by machines	Keneth kasagu	Operations manager	C. Chikopa	HRM	2012/12/10	O. Marcello	D. mwenechanya
EST/BLK/01	TOLEZA	1	drought and theft	R. Fitzpark	Managing Director			18/10/2012	charity	nanchukwa
EST/DZ/01	KATENGEZA	3		precious mkwanda	f. manager			14/10/2012	pempho	nanchukwa
EST/DZ/02	DUDU	3		W. S Jekete	Manager	R. F Dzonzi		14/10/2012	clauzelly	nanchukwa
EST/TO/09	GOTHA	14	they did not give the income data because it is very confidential to them	K. chiwalo	Head of estate			2012/4/10	young	nyengo
EST/TO/08	STECO	14	the economy of the country has affected their relationship with the workers, things like devaluation	L. nakhupe	District manager	S. Mateyu	Clerk	2012/2/10	young	nyengo
EST/TO/07	NALI FARM	14	running the company has not been easy especially with succesion issues	M. muli	farm manager			2012/2/10	reuben	twambe
EST/TO/06	CHILANGOMA	14	the estate is very simpathetic with ots employes they provide all the want	A. Chidumayo	Estate supervisor					K. Nyengo
EST/TO/05	NAMINGOMBA	14	no irrigation because the river is in the next estate	Sulima	General manager					K. Nyengo
EST/TO/04	NAMAPANGA	14	the intake weir was not visited because it is far away	A. Chidumayo	Estate supervisor			2012/11/10	monica mwawanda	K. Nyengo
EST/TO/03	THUNGA	14	rising costs of inputs	Makumba	Manager	wily zakaliya	group superintendent	2012/11/10	monica mwawanda	K. Nyengo
EST/TO/02	MPENI	14		Jolly Mthethiwa	estate manager	wily zakaliya	group superintendent	2012/11/10	reuben	K. Nyengo
EST/TO/01	SATEMWA	14		Mazobwe	snr estate manager	Mandala	HRM	2012/4/10	k. Nyengo	twambe
EST/CK/01	KASINTHULA CANE GRC	1		Kent kasitomu	Agriculture manager			17/10/2012	monica mwawanda	K. Nyengo
EST/MJ/12	NAMPHIMBA	14						2012/6/10	reuben	K. Nyengo
EST/MJ/11	BROOMFIELD	14	when it os rain season, the reserviour floods to people's field, administrative procedures are not followed	E. Diwa	f. manager			2012/6/10	monica mwawanda	K. Nyengo
EST/MJ/10	LAUDER DALE	14		B. E. mailosi	General manager			2012/10/10	young	K. Nyengo
EST/MJ/09	GLENARCHY	14		J. chise	estate manager			2012/8/10	young	K. Nyengo
EST/MJ/08	THORN WOOD	14	we grow drought resistant crops hence no need for irrigation	Mchiphiko	estate manager			2012/10/10	reuben	K. Nyengo
EST/MJ/07	CHISAMBO	14	encroament on tea is a big challenge in the estate	W. kunjundayi	Factory manager			2012/5/10	monica mwawanda	K. Nyengo
EST/MJ/06	LIKANGA	14	finicial records can only be given by the owner	Maganga	Group Manager			2012/6/10	monica mwawanda	K. Nyengo
EST/MJ/05	RUO	14	the running costs of the estate are high	K. Chisale	Group Manager			2012/6/10	monica mwawanda	K. Nyengo
EST/MJ/04	ESPERANZA	14	the livelihood is ok since they havve never been sick, the intake site was not visited because it is very far	Kansadwa	Group Manager			2012/4/10	monica mwawanda	K. Nyengo
EST/MJ/03	ELDORADO	14	stealing is a problem at the estate by the employees	P. Nihaka	estate manager			2012/6/10	young	K. Nyengo
EST/MJ/02	SAYAMA	14		F. dambuleni	snr estate manager			2012/6/10	reuben	K. Nyengo
EST/MJ/01	LUJERI	14		D.D. mathanda	HRM	Macford pearson	Personnel and administrative assistant	2012/6/10	twambie	K. Nyengo

CHAPTER 6 ESTATE SURVEY

Estate Code	Name of Estate	WRA	Estate Ownership		Location							Employee			Temporary Worker						Scale/Mode of Farming			
			Name of head of estate [if available]	Sex	District	Accessibility	Topo. Map (1 in 50,000)	GPS (Coordinates)				Total number	Male (no)	Female (no)	Total number during peak period	Male (no)	Female (no)	Total number during peak-off	Male (no)	Female (no)	Irrigated land (ha)	Irrigation Method	Rain fed land (ha)	Other major facilities [specify]
								Easting	Northing	Altitude (m)	Location of Coordinates													
EST/NS/01	KAOMBE	1	STEWART MICHEAL	Male	NSANJE	1 Impossible	720240	8168368	87	Centre of Vge	220	180	40	220	180	40	130	100	30	818	CENTRE PIV	818	N/A	
EST/PE/01	THUCHILA	14	JOSEPH NEDI	Male	PHALOMBE	1 Impossible	776472	8243318	855	Centre of Vge	268	26	242	800	240	560	268	26	242	22	GRAVITY	520	N/A	
EST/MH/02	NAMANGADWE	11	JOHN SCODES	Male	MANGOCHI	2 Impossible	767239	8412042	944	Centre of Vge	15	13	2	80	40	40	40	30	10	0	N/A	52	tobacco burns	
EST/MH/01	FUNWE	3	JON LANE	Male	MANGOCHI	1 Impossible	770287	8292538	634	Vge Entrance	255	220	35	255	200	35	30	26	4	0	N/A	800	4 warehouses, 1 fuel house,	
EST/KK/01	DWANGWA	6	KEN TEMBO	Male	NKHOTAKOTA	1 Done	624601	8618710	494	Vge Entrance	2990	2718	272	1823	1641	182	1823	1641	182	6595	SPRINKLER	6595	N/A	
EST/RU/01	NKHOZO	7	TREVOR	Male	RUMPHI	1 Done	580390	8790335	1112	Centre of Vge	514	214	300	700	250	450	500	200	300	5	MOTORISEI	695	N/A	
EST/KU/02	CHIBWAZI 1	6	E. VALILANJI	Male	KASUNGU	1 Done	547720	8579657	1045	Vge Entrance	5	5	0	131	100	31	102	88	14	0	N/A	50	Black cure barn	
EST/KU/01	ESTATE 81	6	GIFT HARAWA	Male	KASUNGU	2 Done	548372	8517605	1018	Vge Entrance	11	11	0	41	21	20	11	11	0	1	MOTORISEI	60	N/A	
EST/MC/02	KWEZA	5	PATRICK MATIKWILI	Male	MCHINJI	1 Done	498599	8471643	1129	Vge Entrance	1	1		36	30	6	1	1	0	0	N/A	36	Warehouse	
EST/MC/03	CHICHERE	5	F. KAPALANGA	Male	MCHINJI	1 Impossible	490817	8473076	1196	Vge Entrance	11	9	2	100	75	25	24	15	9	1	MOTORISEI	40	1 storage shed	
EST/LL/22	LISOKA	4	PRESS TRUST		LILONGWE	2 Done	533202	8457303	1130	Centre of Vge	10	10	0	10	10	0	10	10	0	0	N/A		N/A	
EST/LL/21	KHASU	4	JONASI	Female	LILONGWE	3 Done	533811	8474494	1124	Vge Entrance	39	31	4	139	49	90	39	31	4	0	N/A	158	N/A	
EST/LL/20	CHIPALA	4	MALEMBA	Male	LILONGWE	1 Done	535988	8469279	1127	Vge Entrance	290	150	90	290	150	60	90	60	30	185	DRIP, PLOU	225	2 warehouses, 4 tunnels, 2 block chongololo's	
EST/LL/19	KASONJORA	4	TEMBO	Male	LILONGWE	1 Done	536535	8478306	1049	Vge Entrance	174	128	46	250	200	50	199	139	60	70	DRIP, PLOU	70	N/A	
EST/LL/18	ZAZI	4	BANDA	Male	LILONGWE	1 Impossible	582528	8427298	1188	Vge Entrance	72	51	21	80	50	30	72	51	21	0	N/A	526	1 warehouse	
EST/LL/17	NSAGWA	4	GORGE TSELINGERZ	Male	LILONGWE	2 Done	537829	8456491	1147	Centre of Vge	239	191	48	361	291	70	239	191	48	115	MOTORISEI	115	3 warehouses, 3 tunnels	
EST/LL/16	NSUNGUZA	4	CHADEWA	Male	LILONGWE	2 Impossible	589009	8438797	1098	Vge Entrance	13	10	3	100	20	80	13	10	3	5	MOTORISEI	250	1 warehouse	
EST/LL/15	NAMITETE	4	CHINSEU	Male	LILONGWE	1 Done	538924	8450490	1133	Vge Entrance	160	130	30	40	30	10	0	0	0	85	MOTORISEI	85	N/A	
EST/LL/14	LINGADZI	4	MWEDADI	Male	LILONGWE	1 Done	570190	8460058	1118	Vge Entrance	132	100	32	400	200	200	132	100	32	42	N/A	455	N/A	
EST/LL/13	GWILIZE	4	GODFREY PHIRI	Male	LILONGWE	1 Done	560452	8463036	1141	Centre of Vge	83	63	20	83	63	20	77	50	27	46	PLOUGH CC	46	1 warehouse, 2 curing facilities	
EST/LL/13	MBABZI	4	MWANAMANDA	Male	LILONGWE	1 Done	572582	8459736	1121	Vge Entrance	300	225	75	1000	750	250	250	175	75	20	SPLINKLER	50	N/A	
EST/LL/12	MACPHERSON	4	MACPHERSON	Male	LILONGWE	2 Done	535450	8450373	1165	Vge Entrance	236	210	26	372	301	71	236	210	26	1200	SPLINKLER	1200	N/A	
EST/LL/10	LUSUNGWI	4	MASEYA	Male	LILONGWE	1 Done	595869	8440779	1148	Vge Entrance	41	39	2	350	200	150	41	39	2	15	SPRINKLER	240	1 warehouse, 5 poultry house	
EST/LL/09	MALOWA	4	KHONDOWE	Male	LILONGWE	1 Impossible	550198	8441566	1145	Vge Entrance	6	6	0	106	26	80	6	6	0	0	N/A		4 warehouses,	
EST/LL/08	KACHAWA	4	MLINGO	Male	LILONGWE	2 Impossible	553731	8440849	1160	Centre of Vge	211	140	71	141	41	100	70	40	30	65	DRIP, PLOU	235	1 warehouse, 1 chongololo	
EST/LL/07	MUDI	4	MUNYENYEMBE	Male	LILONGWE	1 Done	531767	8479820	1070	Vge Entrance	200	80	120	81	50	31	0	0	0	80	DRIP, PLOU	150	1warehouse, 3 tunnels, 24 chongololo's	
EST/LL/06	CHILIKHANDA	4	MANGULAMA	Male	LILONGWE	3 Impossible	567025	8463805	1109	Centre of Vge	250	200	50	300	250	50	98	28	70	170	MOTORISEI	170	Barns, tunnels	
EST/LL/05	DAMINGA	4	LEONARD	Male	LILONGWE	1 Impossible	550801	8468398	1189	Vge Entrance	83	72	11	147	110	37	83	72	11	46	N/A	46	N/A	
EST.LL.04	NSUNGA	4	GORGE TSELINGERZ	Male	LILONGWE	1 Done	564079	8446736	1134	Vge Entrance	184	150	34	200	130	70	184	150	34	170	SPRINKLER	50	N/A	

CHAPTER 6 ESTATE SURVEY

Estate Code	Name of Estate	WRA	Major Farm Products/Acreage																																
			Irrigated Area (Rainy season)																																
			Maize				Cassava				Tobacco				Cotton				Sunflower				Coffee				Sugarcane				Tea				
			ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha				
EST/NS/01	KAOMBE	1																													818	16360000	30	nov-april	
EST/PE/01	THUCHILA	14	52	182000	42	nov-april																													
EST/MH/02	NAMANGADWE	11									52	46800	800	sept-march																					
EST/MH/01	FUNWE	3	500	1750000	40	nov-april																													
EST/KK/01	DWANGWA	6																									6595	131900000	30						
EST/RU/01	NKHOZO	7																																	
EST/KU/02	CHIBWAZI 1	6									50	45000	830	nov- april																					
EST/KU/01	ESTATE 81	6									60	54000	830	nov- april																					
EST/MC/02	KWEZA	5																																	
EST/MC/03	CHICHERE	5	10	3500	42	nov- april																													
EST/LL/22	LISOKA	4																																	
EST/LL/21	KHASU	4	58	203000	37	nov- april																													
EST/LL/20	CHIPALA	4	115	402500	35	nov- april					115	103500	830	sept-march																					
EST/LL/19	KASONJORA	4									70	63000	830	sept-march																					
EST/LL/18	ZAZI	4	80	280000	36	dec- april																													
EST/LL/17	NSAGWA	4									115	103500	830	sept-march																					
EST/LL/16	NSUNGUZA	4	150	525000	38	nov-may																													
EST/LL/15	NAMITETE	4	10	35000	35	dec- april					75	67500	830	sept-march																					
EST/LL/14	LINGADZI	4	70	245000	37	dec- april					46	41400	830	sept-march																					
EST/LL/13	GWILIZE	4																																	
EST/LL/13	MBABZI	4	180	630000	35	nov- june					80	72000	800	sept- march																					
EST/LL/12	MACPHERSON	4	200	700000	37	nov- june					100	90000	750	sept- march																					
EST/LL/10	LUSUNGWI	4	30	105000	35	nov- April																													
EST/LL/09	MALOWA	4	70	245000	35	nov-April																													
EST/LL/08	KACHAWA	4									65	58500	850	sept-march																					
EST/LL/07	MUDI	4									80	72000	820	sept-April																					
EST/LL/06	CHILIKHANDA	4	20	70000	35	nov-april					162	145000	800	sept-jan																					
EST/LL/05	DAMINGA	4									46	41400	750	sept-march																					
EST.LL.04	NSUNGA	4	25	87500	37	nov-april					85	76500	800	sept-feb																					

CHAPTER 6 ESTATE SURVEY

Estate Code	Name of Estate	WRA	Major Farm Products/Acreage																												
			Irrigated Area (Rainy season)												Irrigated Area (Dry Season)																
			Tea			Soya Beans			Maize			Rice			Tobacco				Chillies				Coffee				Sugarcane				
			Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)
EST/NS/01	KAOMBE	1																													
EST/PE/01	THUCHILA	14						15	52500	60	april-nov																				
EST/MH/02	NAMANGADWE	11																													
EST/MH/01	FUNWE	3				20	50000	200	nov-april																						
EST/KK/01	DWANGWA	6																											6595	131900000	
EST/RU/01	NKHOZO	7																													
EST/KU/02	CHIBWAZI 1	6														50	450000	825	June-oct												
EST/KU/01	ESTATE 81	6																													
EST/MC/02	KWEZA	5				36	90000	200	dec- april																						
EST/MC/03	CHICHERE	5																													
EST/LL/22	LISOKA	4																													
EST/LL/21	KHASU	4																													
EST/LL/20	CHIPALA	4																													
EST/LL/19	KASONJORA	4																													
EST/LL/18	ZAZI	4				20	50000	200	nov-april																						
EST/LL/17	NSAGWA	4														115	1035000	830	sept- dec												
EST/LL/16	NSUNGUZA	4																													
EST/LL/15	NAMITETE	4																													
EST/LL/14	LINGADZI	4				97	242500	150	nov-may																						
EST/LL/13	GWILIZE	4																													
EST/LL/13	MBABZI	4				150	375000	220	nov-may																						
EST/LL/12	MACPHERSON	4				100	250000	220	nov-may																						
EST/LL/10	LUSUNGWI	4				28	70000	250	nov-may	2	7000	60	aug-dec																		
EST/LL/09	MALOWA	4				10	25000	200	nov-may																						
EST/LL/08	KACHAWA	4																													
EST/LL/07	MUDI	4																													
EST/LL/06	CHILIKHANDA	4																													
EST/LL/05	DAMINGA	4																													
EST.LL.04	NSUNGA	4																													

CHAPTER 6 ESTATE SURVEY

Estate Code	Name of Estate	WRA	Major Farm Products/Acreage																													
			Irrigated Area (Dry Season)												Rain fed area																	
			Sugarcane		Tea				Soya Beans				pegon peas				Maize (ha)	Rice (ha)	Tobacco (ha)	Cotton (ha)	Coffee (ha)	Sugarca ne (ha)	Tea (ha)	Ground nuts (ha)	Cassava (ha)	Sunflow er (ha)	Vegetable (ha)	Beans (ha)	Soya beans (ha)	Sweet potato (ha)	Irish potato (ha)	Vegetable (ha)
			Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	yield (kgs)	unit price	duration																
EST/NS/01	KAOMBE	1			818	654400	400	apr-nov												818												
EST/PE/01	THUCHILA	14													52															9		
EST/MH/02	NAMANGADWE	11															52															
EST/MH/01	FUNWE	3													500						20					20						
EST/KK/01	DWANGWA	6		30 mar-sept																6595												
EST/RU/01	NKHOZO	7																			5											
EST/KU/02	CHIBWAZI 1	6															60							0.5								
EST/KU/01	ESTATE 81	6																														
EST/MC/02	KWEZA	5																														
EST/MC/03	CHICHERE	5													10						10	10	1				1					
EST/LL/22	LISOKA	4																														
EST/LL/21	KHASU	4													58																	
EST/LL/20	CHIPALA	4													115		115															
EST/LL/19	KASONJORA	4															70															
EST/LL/18	ZAZI	4													80						40					20						
EST/LL/17	NSAGWA	4															115															
EST/LL/16	NSUNGUZA	4													150						25											
EST/LL/15	NAMITETE	4													10		75															
EST/LL/14	LINGADZI	4													70						20				10	97						
EST/LL/13	GWILIZE	4															46															
EST/LL/13	MBABZI	4													160		80				20					150						
EST/LL/12	MACPHERSON	4													200		100				25	6				100						
EST/LL/10	LUSUNGWI	4													32						9	12				28						
EST/LL/09	MALOWA	4													70						10					10						
EST/LL/08	KACHAWA	4															65															
EST/LL/07	MUDI	4															80															
EST/LL/06	CHILIKHANDA	4													20		162															
EST/LL/05	DAMINGA	4															46															
EST.LL.04	NSUNGA	4													25		85															

CHAPTER 6 ESTATE SURVEY

Estate Code	Name of Estate	WRA	Mode of irrigation											Annual Income				Annual Expenditure					
			Type of Intake weir/Intake Structure		Main Canal						Water Rights	Motorised Pump			Water Rights	Whole Income (MK)	Farming (MK)	Non-Farming		Whole Expenditure (MK)	Fertilizer (MK)		
			Concrete/masonry; Local Materials	Others [Specify]	Total Length (m)	Structure		Minimum cross section				Water Source		Number of Pumps				Avg Vol. of monthly pumped water (m ³ /month/pump)	Grazing (MK)		Others [Specify] (MK)	Rainy season	
						Earth; Concrete; Masonry	Other [Specify]	Height (cm)	Width (cm)	Longitudinal gradient along the point (%)		River (name)	Lake/Pond (name)										
EST/NS/01	KAOMBE	1		earth	200							Registered				Unregistered	800,800,000.00			raising crocodiles	448,000,000.00		
EST/PE/01	THUCHILA	14										Unregistered	thuchila		3	Unregistered	150,000,000.00				90,000,000.00		
EST/MH/02	NAMANGADWE	11										Unregistered				Unregistered	Not Provided				45,480,400.00	3,312,400.00	
EST/MH/01	FUNWE	3										Unregistered				Unregistered	101,847,031.00				64,352,839.00	4,000,000.00	
EST/KK/01	DWANGWA	6	Concrete/Masonry	pipe								Unregistered	dwangwa		41	Registered	1,653,029,491,000.00				4,114,860,548.00	157,345,194.00	
EST/RU/01	NKHOZO	7	Concrete/Masonry	a pump house protected with gabions								Unregistered	lunyina		4	Registered	105,500,000.00	105,500,000.00			47,900,000.00	22,600,000.00	
EST/KU/02	CHIBWAZI 1	6										Unregistered				Unregistered	30,000,000.00	30,000,000.00			14,275,600.00	8,000,000.00	
EST/KU/01	ESTATE 81	6			40							Unregistered			1	Unregistered	26,082,000.00	26,082,000.00			14,640,000.00	14,040,000.00	
EST/MC/02	KWEZA	5										Unregistered				Unregistered	Not Provided				581,000.00		
EST/MC/03	CHICHERE	5										Unregistered	bua		3	Registered	19,207,600.00	19,207,600.00			14,583,900.00	806,400.00	
EST/LL/22	LISOKA	4										Unregistered				Unregistered	Not Provided				63,000.00		
EST/LL/21	KHASU	4										Unregistered				Unregistered	4,403,200.00				2,425,120.00		
EST/LL/20	CHIPALA	4										Unregistered				Unregistered	244,000,000.00	244,000,000.00			Not Provided		
EST/LL/19	KASONJORA	4										Unregistered	mudi		4	100400	Registered	130,000,000.00	130,000,000.00			110,000,000.00	50,000,000.00
EST/LL/18	ZAZI	4										Unregistered				Unregistered	50,000,000.00	50,000,000.00			Not Provided		
EST/LL/17	NSAGWA	4		metallic pipes								Unregistered	kamadzi		5	54000	Registered	100,000,000.00	100,000,000.00			85,300,000.00	10,300,000.00
EST/LL/16	NSUNGUZA	4										Unregistered	nanjiri		5	18000	Unregistered					-	
EST/LL/15	NAMITETE	4										Unregistered	namitete		6		Registered	150,000,000.00	150,000,000.00			45,000,000.00	10,000,000.00
EST/LL/14	LINGADZI	4										Unregistered	lingadzi		8		Unregistered					-	
EST/LL/13	GWILIZE	4	Concrete/Masonry		8000		PVC pipe	10				Unregistered	chilikhanda		1		Unregistered	111,000,000.00	111,000,000.00			17,800,000.00	4,000,000.00
EST/LL/13	MBABZI	4										Unregistered	mbabzi	lingadzi	4		Registered	Not Provided				60,000,000.00	60,000,000.00
EST/LL/12	MACPHERSON	4										Unregistered	namitete	kakuyu	2		Registered					-	
EST/LL/10	LUSUNGWI	4										Unregistered	lisungwi		1		Unregistered					-	
EST/LL/09	MALOWA	4										Unregistered					Unregistered					-	
EST/LL/08	KACHAWA	4										Unregistered	tsukanthanga		1		Registered	150,000,000.00	150,000,000.00			90,000,000.00	
EST/LL/07	MUDI	4	Local Materials									Unregistered	mudi		1		Unregistered					-	
EST/LL/06	CHILIKHANDA	4										Unregistered	chilikhanda		4		Registered	Not Provided				4,177,900.00	
EST/LL/05	DAMINGA	4										Unregistered	underground water		3		Unregistered	1,265,000.00				-	
EST/LL/04	NSUNGA	4										Unregistered	kanyerele		8		Unregistered					-	

CHAPTER 6 ESTATE SURVEY

Estate Code	Name of Estate	WRA	Annual Expenditure									Balance	Issues	
			Fertilizer (MK)	Seed (MK)	Employment (MK)	Fuel for farming machines/pumps (MK)	Maintenance for farming machine/pumps (MK)	Feed for livestock	Shipping/ selling expenses	Estate consumption of farm products	Other costs	Annual Balance	Matters of Farming	Matters of Irrigation
			Dry season											
EST/NS/01	KAOMBE	1									448,000,000.00	352,800,000.00		
EST/PE/01	THUCHILA	14									90,000,000.00	60,000,000.00	high cost of inputs and production, they have tried conservation agriculture and hope to serve 20000000	
EST/MH/02	NAMANGADWE	11				10,500,000.00	6,000,000.00				25,668,000.00		difficult to access firewood, the weather is not reliable after transplanting tobacco, difficult to find adequate	difficult to find adequate water to supply to the scheme during planting like at the nursery
EST/MH/01	FUNWE	3			35,521,939.00	12,000,000.00	4,000,000.00		8,830,900.00			37,494,192.00	farm is located in the upland area where rainfall is a problem, that affects maize in the field hence poor seed production	october to november, there is a water problem because of lower water table
EST/KK/01	DWANGWA	6	474,436,726.00		1,681,952,234.00	464,842,436.00	554,883,915.00					781,400,043.00	their seeds are plantation and keeps revolving, the demand of labour is high	
EST/RU/01	NKHOZO	7	2,800,000.00	4,500,000.00	10,000,000.00	400,000.00	3,700,000.00		2,900,000.00	1,000,000.00		57,600,000.00	the average soil PH of the area is 4.5 which requires a lot of inorganic fertilizer, security for the produce is a concern,	irrigation is very low hence the purchase of the new pivots
EST/KU/02	CHIBWAZI 1	6			5,145,600.00	430,000.00	700,000.00					15,724,400.00	shortage of labour during peak period, lack of enough storage place for their produce, lack of enough water for the crop,	the people in the estate have portable water because of the electric pump that supply water
EST/KU/01	ESTATE 81	6	546,000.00	54,000.00								11,442,000.00		
EST/MC/02	KWEZA	5			495,000.00					76,000.00	10,000.00		termintes destroying crops	no portable water
EST/MC/03	CHICHERE	5	309,000.00	2,155,500.00	7,800,000.00	1,419,000.00	1,314,000.00		180,000.00	300,000.00	300,000.00	4,623,700.00	the cost of inputs are raising everyday, the government subsidised for consumers not producers, the government should control farm produce prices	
EST/LL/22	LISOKA	4			60,000.00	3,000.00							the estate is only keeping trees as it is under fallow	
EST/LL/21	KHASU	4		428,000.00	548,300.00					378,000.00	1,070,820.00	1,978,080.00	need for a reservoir for irrigation, need to provide training to families on subsistence farming	no portable water, provide firewood to the community and provide likuni phala
EST/LL/20	CHIPALA	4											scarcity of water for irrigation	
EST/LL/19	KASONJORA	4		15,000,000.00	15,000,000.00	15,000,000.00			15,000,000.00			20,000,000.00	shortage of labour, hailstorm destroys the crop	
EST/LL/18	ZAZI	4											shortage of labour, shortage of fuel is affecting production	
EST/LL/17	NSAGWA	4			15,600,000.00	22,800,000.00	15,000,000.00			21,600,000.00		14,700,000.00	labour shortage, produce market is a problem	during this time the people have a lot of festivities and they are not willing to work
EST/LL/16	NSUNGUZA	4										-	inadequate machinery, raising cost of farm machinery and inputs	
EST/LL/15	NAMITETE	4			8,000,000.00	17,000,000.00	5,000,000.00		3,000,000.00	2,000,000.00		105,000,000.00		
EST/LL/14	LINGADZI	4										-	they mainly focus on legume production, climatic change is affecting farming	management of employees has gone down, need more financial support
EST/LL/13	GWILIZE	4		100,000.00	10,000,000.00		3,000,000.00			700,000.00		93,200,000.00		
EST/LL/13	MBABZI	4											NGO's around are issuing treadle pumps to the people around and in turn the people are breaking our pipes due to lack of understanding the principles of water rights	
EST/LL/12	MACPHERSON	4										-	maximum demand is affecting their production	
EST/LL/10	LUSUNGWU	4										-	crops being affected by pests,	
EST/LL/09	MALOWA	4										-	degradation of the soil is affecting crop yields	
EST/LL/08	KACHAWA	4									90,000,000.00	60,000,000.00	problems with the rainfall pattern not being consistent, natural disasters, rising production costs	unpredictable market prices
EST/LL/07	MUDI	4										-	erratic rainfall, lack of good market	
EST/LL/06	CHILIKHANDA	4			137,900.00		4,000,000.00			40,000.00			everything seem fine	everyone seem happy with the estate and they have good livelihood
EST/LL/05	DAMINGA	4										1,265,000.00		
EST/LL/04	NSUNGA	4										-	lack of enough labour, climatic change has also affected production, the output of last year was not good	

CHAPTER 6 ESTATE SURVEY

Estate Code	Name of Estate	WRA	Issues	Authenticity						
			General	Main Interviewee		Interviewee		Interviewer		Witness (Name)
				Name	Occupation	Name	Occupation	Date	Name	
EST/NS/01	KAOMBE	1	they rent land out to the communities around and the money is used to develop the communities around, they also make a lot of money from the sale of crocodile skins	steward Micheal	manager			17/10/12	nyengo	twambe
EST/PE/01	THUCHILA	14	the estate has 300 ha of tree plantation where they are producing honey	J. Neri	Group Manager			2012/9/10	young	K. Nyengo
EST/MH/02	NAMANGADWE	11	difficult to handle labourers with different attitudes	Ayami	manager	S. Hlard	Estate clerk	2012/10/15	charity	maulidi
EST/MH/01	FUNWE	3	there is full time activities	Alex nyirenda	out grower manager	p. maloya	HRO	2012/10/16	charity	james
EST/KK/01	DWANGWA	6		C. makata	man. Accounting			2012/10/16	O. Marcello	B.M. moyo
EST/RU/01	NKHOZO	7	the financial records given are just sketchy because all operations are done at the head office in Ilongwe	E. S. Maluza	farm manager	R. Matekenya	out grower manager	2012/6/10	D. mwenechanya	D. mwenechanya
EST/KU/02	CHIBWAZI 1	6	their demand of firewood is high because they use it to process the flue cure tobacco, 1365m3	E. Bvalani	Estate clerk	M. Mchata	S/ clerk	2012/3/10	T. Manja	T. Phiri
EST/KU/01	ESTATE 81	6								T. Phiri
EST/MC/02	KWEZA	5	the estate is just and last growing season was their first year of production, the owner of the estate was abroad during the time of data collection	P. Matikwili	Estate supervisor			13/10/2012	F. Manja	M. kandiado
EST/MC/03	CHICHERE	5	as a social responsibility the estate assist families in the community by giving them food and when they come to work, the government comes in with the issue of human rights	F. A kapalanga	Farm Manager			14/10/2012	F. Manja	T. Phiri
EST/LL/22	LISOKA	4		Million phiri	watchman	lyson posiyano	watchman	2012/2/10	Clauzelly Gausi	Charles
EST/LL/21	KHASU	4	there is a hospital in the area with no drugs and staff	P. Jonas	Estate manager	Makadiwa	Area Manager	2012/5/10	C. Siabu	nanchukwa
EST/LL/20	CHIPALA	4	all the expenditure break down is done by the management	S.A. Chikanda	Estate manager	K. Mfune	Estate manager	2012/5/10	pempho sinkanda	nanchukwa
EST/LL/19	KASONJORA	4	the livelihood is good	E. M. Tembo	Farm Manager	J. Butao	farm clerk	2012/5/10	Clauzelly Gausi	nanchukwa
EST/LL/18	ZAZI	4	the feel isolated by the government they sometimes want to be visited by the extension workers	N. S. Banda	Farm Manager			2012/12/10	pempho sinkanda	nanchukwa
EST/LL/17	NSAGWA	4	enchroachment of the people into the farmland	Fungulani	Farm Manager	Mchenga	estate clerk	2012/2/10	pempho sinkanda	nanchukwa
EST/LL/16	NSUNGUZA	4	the financial records are handled by the owner mr. lighton dzombe	C. B Chadela	Farm Manager	C. F. Banda	farm clerk	2012/9/10	pempho sinkanda	nanchukwa
EST/LL/15	NAMITETE	4		Edward	Estate manager	S. D Lihaka	estate clerk		K. Nanchukwa	pempho
EST/LL/14	LINGADZI	4	employees future in limbo due to financial crisis, the managers did not give full details of income because they did not know	A. mwedadi	Farm Manager			2012/3/10	C. Siabu	nanchukwa
EST/LL/13	GWILIZE	4	the managers did not have the record of the financial projections around	G. I Phiri	Farm Manager			2012/3/10	pempho sinkanda	nanchukwa
EST/LL/13	MBABZI	4	did not give full details of their income					2012/3/10		nanchukwa
EST/LL/12	MACPHERSON	4	did not give details of their income	D. F Mcpherson	Farm Manager			2012/2/10	K. Nanchukwa	pempho
EST/LL/10	LUSUNGWI	4	the estate belongs to exagris and all administrative issues including finances are handled by the head office			E. Chimatiro	Farm supervisor	2012/12/10	pempho sinkanda	nanchukwa
EST/LL/09	MALOWA	4	the estate is owned by Mr. kondowe hence all operations including expenditure centralised at his group of companies	Tadeyo	Farm Clerk	Robert	Farm Manager	2012/11/10	pempho sinkanda	nanchukwa
EST/LL/08	KACHAWA	4	fuel shortages are affecting their production	A. Mulingo	Operation manager	A. Chitele	estate clerk	2012/7/10	pempho sinkanda	nanchukwa
EST/LL/07	MUDI	4	the estate belongs to Alliance one hence all financial operations are done at kanengo	Davie	supervisor			2012/6/10	pempho sinkanda	nanchukwa
EST/LL/06	CHILIKHANDA	4		B. Manguluma	Farm Manager	G. Sayo	estate clerk	2012/3/10	pempho sinkanda	nanchukwa
EST/LL/05	DAMINGA	4	the complete information on finances was not available, money is a challenge, workers are not given there money for overtime	D. Nkhoma				2012/4/10	K. Nanchukwa	pempho
EST.LL.04	NSUNGA	4		P. Phiri	Estate manager	M. mangalinga	estate clerk	2012/8/10	Clauzelly Gausi	nanchukwa

CHAPTER 6 ESTATE SURVEY

Estate Code	Name of Estate	WRA	Major Farm Products/Acreage																											
			Irrigated Area (Rainy season)														Irrigated Area (Dry Season)													
			Tea			Soya Beans			Maize			Rice			Tobacco			Chillies			Coffee			Sugarcane						
			Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha
EST/LL/03	MCHEZA	4																												
EST/LL/02	KAKOMA	4																												
EST/LL/01	GHINGANGA	4				30	75000	200	nov-may																					
EST/SA/01	PEACOCK 1	3																												
EST/DA/02	NIAGARA	15				87	217500	200	dec-apr	87	304500	46	jul-nov																	
EST/SA/02	MPATSANJOKA	6				50	125000	200	nov-jun												20	50000	112	mar-nov						

Estate Code	Name of Estate	WRA	Major Farm Products/Acreage																											
			Irrigated Area (Dry Season)														Rain fed area													
			Sugarcane		Tea			Soya Beans			pegon peas				Maize (ha)	Rice (ha)	Tobacco (ha)	Cotton (ha)	Coffee (ha)	Sugar cane (ha)	Tea (ha)	Ground nuts (ha)	Cassava (ha)	Sunflower (ha)	Vegetable (ha)	Beans (ha)	Soya beans (ha)	Sweet potato (ha)	Irish potato (ha)	Vegetable (ha)
			Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	Yield (kgs)	Unit Price	Duration	ha	yield (kgs)	unit price	duration														
EST/LL/03	MCHEZA	4																												
EST/LL/02	KAKOMA	4																												
EST/LL/01	GHINGANGA	4																												
EST/SA/01	PEACOCK 1	3																												
EST/DA/02	NIAGARA	15																												
EST/SA/02	MPATSANJOKA	6																												

Estate Code	Name of Estate	WRA	Major Farm Products/Acreage														Mode of irrigation														
			Rain fed area					Irrig. Facility & water source					Location of Reservoir/Pond			Catchment area or reservoir/pond (km ²)	Avg Area of Reservoir/ Pond (km ²)	Avg Depth of Reservoir/ Pond (m)	Catchment area of Weir/ intake (km ²)	Type of Reservoir/ pond Embarkment		Location of intake weir/Intake			Type of Intake weir/ Intake						
			Nuts (ha)	pegon peas	cowpeas	macademia	chillies	Reservoir/Pond	Borehole	Intake weir (River Name)	Intake (River Name)	Easting	Northing	Altitude (m)	Earth; Masonry					Other [specify]	Latitude	Longitude	Altitude (m)								
								Reservoir/ Pond	River Name																						
EST/LL/03	MCHEZA	4																													
EST/LL/02	KAKOMA	4																													
EST/LL/01	GHINGANGA	4																													
EST/SA/01	PEACOCK 1	3																													
EST/DA/02	NIAGARA	15																													
EST/SA/02	MPATSANJOKA	6																													

CHAPTER 6 ESTATE SURVEY

Estate Code	Name of Estate	WRA	Mode of irrigation											Annual Income				Annual Expenditure					
			Type of Intake weir/Intake Structure		Main Canal					Water Rights	Motorised Pump			Water Rights	Whole Income (MK)	Farming (MK)	Non-Farming		Whole Expenditure (MK)	Fertilizer (MK)			
			Concrete/masonry; Local Materials	Others [Specify]	Total Length (m)	Structure		Minimum cross section			Number of Pumps	Avg Vol. of monthly pumped water (m ³ /month/pump)	Grazing (MK)				Others [Specify] (MK)	Rainy season					
						Earth; Concrete; Masonry	Other [Specify]	Height (cm)	Width (cm)											Longitudinal gradient along the point (%)	River (name)	Lake/Pond (name)	
EST/LL/03	MCHEZA	4										Unregistered	Likuni		2	259200	Unregistered	60,000,000.00				30,000,000.00	
EST/LL/02	KAKOMA	4										Unregistered	kakoma		1	115200	Registered	122,920,000.00	122,920,000.00			-	
EST/LL/01	GHINGANGA	4										Unregistered					Unregistered	2,386,500.00				369,866.00	
EST/SA/01	PEACOCK 1	3										Unregistered					Unregistered	15,000,000.00	8,000,000.00	7,000,000.00		10,000,000.00	
EST/DA/02	NIAGARA	15										Unregistered			1		Unregistered	45,915,000.00	45,915,000.00			16,304,000.00	8,536,000.00
EST/SA/02	MPATSANJOKA	6										Unregistered	underground-borehole		3		Unregistered					-	

Estate Code	Name of Estate	WRA	Annual Expenditure										Balance	Issues			
			Fertilizer (MK)	Seed (MK)	Employment (MK)	Fuel for farming machines/pumps (MK)	Maintenance for farming machine/pumps (MK)	Feed for livestock	Shipping/ selling expenses	Estate consumption of farm products	Other costs	Annual Balance	Matters of Farming	Matters of Irrigation			
			Dry season														
EST/LL/03	MCHEZA	4											30,000,000.00	30,000,000.00	the water supply is ok, but erratic rains and natural disasters are affecting the quality of harvest		
EST/LL/02	KAKOMA	4												122,920,000.00	122,920,000.00	bad prices at the market, rising cost of production, awkward working hours	
EST/LL/01	GHINGANGA	4											369,866.00	2,016,634.00	climatic change	no portable water, no health centre, no health centre	
EST/SA/01	PEACOCK 1	3											10,000,000.00	5,000,000.00	The estate depends on rainfed agriculture which is commonly affected by shortage of rainfall	High costs associated with establishment of irrigation scheme is a challenge, even though the company has motorised pumps	
EST/DA/02	NIAGARA	15		2,620,000.00	1,200,000.00	3,678,800.00	10,000.00						259,200.00	29,611,000.00	Sudden change of weather which forced the company to engage in irrigation		
EST/SA/02	MPATSANJOKA	6												-	High evapotranspiration	Every year there is atleast a 28 day dry spell, which affects the crop production	

Estate Code	Name of Estate	WRA	Issues	Authenticity						
			General	Main Interviewee		Interviewee		Interviewer		Witness (Name)
				Name	Occupation	Name	Occupation	Date	Name	
EST/LL/03	MCHEZA	4		c. Gaveni	Estate manager			2012/8/10	pempho sinkanda	nanchukwa
EST/LL/02	KAKOMA	4		G. D. Yakobe	Farm Manager			2012/8/10	pempho sinkanda	nanchukwa
EST/LL/01	GHINGANGA	4	it provides employment to the nearby villages	Aligori	farm supervisor	G. kadiwa	Area Manager	2012/5/10	C. Siabu	nanchukwa
EST/SA/01	PEACOCK 1	3	Labour becomes a challenge in rainy season hence result into mechanisation	F. Jumbe	Estate manager			10/26/2012	Twambilire Mwenech	nyengo
EST/DA/02	NIAGARA	15		F. Chatula	supervisor	Robert	Clerk	2012/10/10	Euthant Buxtone	T. Phiri
EST/SA/02	MPATSANJOKA	6		S. Chipeta	Operation manager			10/29/2012	Twambilire Mwenech	nyengo

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	Location		RWDO/ISD	Dam										Purpose and Usage						
			District/City	Village		Accessibility	Identification & Marking on topo. Map	Dam Type		GPS Coordinates at Dam crest				Year of construction	Dam Height	crest length	Crest width	Dam Volume (m ³)	Purpose		Usage	
								Earth; Masonry; Concrete	Others (Specify)	Longitudes	Latitudes	Elevation	Where coordinates are taken						Portable water; Irrig.;Livestock; Fish culture; Hydropower	Other [Specify]	Effectively; Moderate; Poor; Abandoned	Others [specify]
WRSKU/01	CHISUWE		6 KASUNGU	CHIWOZA		Easily accessible		Earth		534686	8575953			1960	3.9	101.5	3.50	47562	Portable water; Irrig.		Effectively	
WRSKU/02	CHISULU		6 KASUNGU	CHISULU		Easily accessible		Earth		538875	8576123	1004			4.2	171	4.70	21897	Portable water		Poor	
WRSKU/03	ESTATE 81	CHAGUMULIRA	KASUNGU	KWENGERE		Easily accessible		Earth		548889	8570019	1009	Middle		13	187	4.00	2037	Portable water;		Poor	
WRSKU/04	CHIMBWAZI		6 KASUNGU	MPHOMWA		Easily accessible		Earth		545267	8579081	996	Middle	1975	7	174	3.20		Portable water;		Effectively;	
WRSDA/03	MBAVI (NYAGALA)	MUWONJEZI	DOWA	CHAKHAZA		Easily accessible		Earth		5589394	8520902	1087	Left		7	600	4.00	63000	IRRIGATION		moderate	
WRSDA/01	CHIMUNGU	CHAWAWA	DOWA	CHIMUNGU		Easily accessible		Earth		579294	8512164	1229	Left	1962	4	166	5.00	5976	Livestock		Poor	
WRSNC/02	DWAZI	DWAZI	NTCHISI	NYANGA		Very difficult to access		Masonry		606918	8520440	1265	Middle	2007	8	30	2.50	600	IRRIGATION		abandoned	
WRSNC/01	CHILANGAWALI	CHILANGAWALI	NTCHISI	LIWENGA		Easily accessible		Concrete		591064	8554748	1116			4.1	40	1.90		IRRIGATION		moderate	
WRSKK/01	MNDIRA		NKHOTAKOTA	Chopera/nkhongo		Easily accessible		Earth		8554330	635161	500	Middle	1976	8	360	4.50	12960	IRRIGATION		effectively	
WRSRU/04	KHUUWUKUWU	KHUUWUKUWU	RUMPHI	Mwathamatha		Very difficult to access			spring	8809181	561418	1266										
WRSRU/03	KAMONOLI		7 RUMPHI	KAMONOLI		Accessible but with few difficulties		Earth		552312	8801768	1195	Right	2007	1.8			630				
WRSRU/02	ZOROKERE	HEWE	RUMPHI	CHATUMBWA/KHUTAMAJI		Accessible but with few difficulties		Masonry		552319	8801633	1170		2010	3.2	25	2.00	160	IRRIGATION		Moderate	
WRSRU/01	SOUTH RUKURU	SOUTH RUKURU	RUMPHI	Vvwalako		Very difficult to access																
WRSMZ/06	KAMATAMBO		MZIMBA	JENDA		Easily accessible		Masonry		8636107	561504	1242		1974	0.9	128	6.00	691			moderate	
WRSMZ/05	KANYENJE	KANYENJE	MZIMBA	KATAMBALALA		Easily accessible		Earth		8667859	346823	1296		1965	7	209	2.50		LIVESTOCK		Effectively	
WRSMZ/04	MANYAMULA	MANYAMULA	MZIMBA	ZIKHOLE SAKALA		Easily accessible		Earth		8681450	547090	1231		1966	3	200	3.00	3000	LIVESTOCK		ABANDONED	
WRSMZ/03	MAWOWO		7 MZIMBA	CHIMUTU		Accessible but with few difficulties		Earth		549213	8673048	1276		1959	19.6	230	3.50	2630	IRRIGATION ;Livestock		moderate	
WRSMZ/2	ZACHULU	ZACHULU	MZIMBA	KANYERA MALO NTHILA		Accessible but with few difficulties		Earth		550097	8687059	1219		1964	4	139	6.00	557	IRRIGATION ;Livestock		moderate	
WRSMZ/01	KAMTOWA	KAMTOWA	MZIMBA	MPONDA M VULA		Easily accessible		Earth		553813	8688504	1290		1965	9	200	4.50	8100	IRRIGATION ;Livestock		POOR	
WRSKA/01	KARONGA LAKESHORE	KA LAKESHORE	KARONGA	MWENLUPEMBE		Easily accessible													IRRIGATION			
WRSKA/06	LEHA	KARONGA	KARONGA	MWAUSEGHA		Accessible but with few difficulties		Earth		633936	8849861	525		2008	9	100	3.00	2640	IRRIGATION		ABANDONED	
WRSCK/01	DZENJE		1 CHIKHWAWA	DZENJE		Easily accessible		Masonry		6881154	8178830	263	Left	0	2	104	4	3116	IRRIGATION		MODERATE	
WRSCK/02	NYAKAMBA		1 CHIKHWAWA	MELO		Easily accessible		Masonry		697655	8174968	153			2.5	89	5		IRRIGATION		ABANDONED	
WRSCK/03	DZUMANI		1 CHIKHWAWA	KAPTENI		Easily accessible		Earth		707846	8165187	158			5	63	3		IRRIGATION		ABANDONED	
WRSCK/04	ZIMPUSI		1 CHIKHWAWA	ZIMPUSI		Easily accessible		Concrete		701422	8221482	97			5	34	3		IRRIGATION		MODERATE	
WRSZA/01	MLUNGUZI		2 ZOMBA	KUCHAWE		Easily accessible		Concrete		748308	8300011	1463			47.5	305	5.7	400000	PORTABLE WATER		EFFECTIVELY	
WRSZA/02	NAMITUKUTA		2 ZOMBA	MALEMIA 2		Easily accessible		Masonry		753702	8312853	847	Middle	2006	4	65	1		IRRIGATION		MODERATE	
WRS/CP/03	CHENDO		9 CHITIPA	CHENDO		Very difficult to access		Masonry		545076	8904791	1393	Left	2007	2	8.3	0.74	2	PORTABLE WATER		MODERATE	
WRS/CP/02	NAMPOHA		9 CHITIPA	NKHWANGA		Very difficult to access		Earth		527089	8942903	1353	RIGHT	1950	2.9	130	3.6	1357	IRRIGATION		ABANDONED	
WRS/CP/01	IBULUMA		9 CHITIPA	CHAMBO		Very difficult to access		Earth		541869	8901480	1588	Middle	2011	7	120	5	700	IRRIGATION		INOPERATIONAL	
WRS/TO/02	THUNGA		14 THYOLO	MAKANDE		Easily accessible		Earth		720861	8227812	1107		2000	100	150	3.5		IRRIGATION		EFFECTIVELY	
WRS/NB/01	CHIGWERE	LUVUWO	NKHATABAY	MTHETHA		Easily accessible		Earth		617080	8741475	1320	Left	2011	7.2	95	3.6	2462	IRRIGATION		EFFECTIVELY	
WRS/NB/02	LIMPHASA	LIMPHASA	NKHATABAY	LIMPHASA		Easily accessible		Earth		634211	8715591	511	Left	1969	4.5	30	1.7	16	IRRIGATION		EFFECTIVELY	
WRS/TO/01	TSWANE		14 THYOLO	SATEMWA		Easily accessible		Earth		722572	8221086	956			11.4	113	3		IRRIGATION		MODERATE	
WRS/BT/01	MVONIHA		4 BLANTYRE	MVONIHA		Easily accessible		Earth		725375	8277496	757			24	208	7		DOMESTRIC USE		POOR	
WRS/BT/02	MTENJERA		14 BLANTYRE	MAKANANI		Easily accessible		Earth		3497487	1562441	640	Right		4	194	6		IRRIGATION		POOR	
WRS/BT/03	MILALA		14 BLANTYRE	THEULA		Easily accessible		Earth		3495640	1561136	655	Right		7	112	4		IRRIGATION		EFFECTIVELY	
WRS/BT/04	CHILEKA		14 BLANTYRE			Easily accessible		Earth		3496287	1566613	742			6	281	3		IRRIGATION		EFFECTIVELY	
WRS/BLK/01	MAPANDO		1 BALAKA	MAPANDO		Very difficult to access		Masonry		7334343	8343158	525	RIGHT	2006	4	36	1.5		IRRIGATION		ABANDONED	

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)															Spillway								
			Rotation during dry season per week	Normal Water Level (m)	Water Level (m)	Length of water in reservoir (m)	Width of water reservoir (m)	Approx. Reservoir area [0.5*L*B] (m ²)	The difference between Normal water level and Lowest Water level (approx. m)	Sediment in the Reservoir	Catchment Area (km ²)	Annual inflow (m ³)	Storage Capacity (m ³)	Effective storage capacity (m ³)	Dead Capacity (m ³)	Water utilisation capacity (m ³)	Flood control Capacity (m ³)	Type	Crest elevation (m)	Temporary crest raising	If 'Yes'		Length (m)	Design discharge (m ³ /s)	
																					Height of crest (m)	Material of raising			
WRS/KU/01	CHISUWE		6	none	3	1	300	101.5	15225	2	50							masonry	0.25						
WRS/KU/02	CHISULU		6								30							mechanical box	1004.00	no			2		
WRS/KU/03	ESTATE 81	CHAGUMULIRA			10	6	235	96	11280	4	13	73241.67	14648.32	1				masonry	2.00	yes	1	bags of sand	41		
WRS/KU/04	CHIMBWAZI		6		6	1	150	174	13050	5	2							box and ring	0.25	no		box and ring pipe	9		
WRS/DA/03	MBAVI(NYAGALA)	MUWONJEZI		none	6	3	300											masonry		no			150		
WRS/DA/01	CHIMUNGU	CHAWAWA		none							1.5							masonry				none	25		
WRS/NC/02	DWAZI	DWAZI		none														masonry					10		
WRS/NC/01	CHILANGAWALI	CHILANGAWALI																mechanical	1116.00	no			0.4		
WRS/KK/01	MNDIRA		5	times/wk	6	2.2	600	360	108000	3.8	severe	2.45	1728000	1080000	648000			masonry		no			22		
WRS/RU/04	KHUKUKUWU	KHUKUKUWU																							
WRS/RU/03	KAMONOLI		7								0.25														
WRS/RU/02	ZOROKERE	HEWE	more		2	0.5	300	20	3000	1.5		6.6	12000	111000	18000			masonry					12.4	51.1	
WRS/RU/01	SOUTH RUKURU	SOUTH RUKURU																							
WRS/MZ/06	KAMATAMBO			5.9	3	300	128	19200	2.9	less	2.1	226560	180480	46080	134400			masonry					7.9		
WRS/MZ/05	KANYANJE	KANYENJE	once		3	2.8	400	200	40000	1.5		2.5	560000	555000	0.15			earth	1.00	yes	1	earth	36		
WRS/MZ/04	MANYAMULA	MANYAMULA			7.2	5.5	400	180	36000	1.7		10	86400	86400	86400			earth		NO					
WRS/MZ/03	MAWOWO		7	TWICE	5.5	4.2	380	220	41800	1.3	SEVERE	2.1	459800	376200	8360	376200			CONCRETE					12.5	
WRS/MZ/2	ZACHULU	ZACHULU			3.5	3	200	150	15000	0.5		2.5													
WRS/MZ/01	KAMTOWA	KAMTOWA			9	5	250	180	22500	4	less	2.5	405000	405000	405000			EARTH		NO					
WRS/KA/01	KARONGA LAKESHORE	KA LAKESHORE							0																
WRS/KA/06	LEHA	KARONGA			8	3	200	100	10000	5		10.5	160000	146000	14000	146000		MASONARY					8.5		
WRS/CK/01	DZENJE		1		2		100	50	2500	2	SEVERE	8						MASONARY	24.00	no			24		
WRS/CK/02	NYAKAMBA		1		1.5		53	70	1855	1.5		8						MASONARY	153.00	no			49		
WRS/CK/03	DZUMANI		1		4		150	63	4725	4	less	2	6300	47725					158.00	YES	5		15		
WRS/CK/04	ZIMPUSI		1		4		300	34	5100	4	SEVERE	6	6000	6000				EMERGENCY	97.00	NO					
WRSZA/01	MLUNGUZI		2		31		29	1000	28	14000	2	less	18	3375				CONCRETE		no			50	48	
WRSZA/02	NAMITUKUTA		2	MORE	4	0.5	57		0	3.5	less							CONCRETE		no					
WRS/CP/03	CHENDO		9		1.6	0.65	20	15	150	0.95	MODERATE	0.15	270	480	210	270		CONCRETE		no			4.1		
WRS/CP/02	NAMPOHA		9						0			2						CONCRETE					7.9		
WRS/CP/01	IBULUMA		9						0			18											8.5		
WRS/TO/02	THUNGA		14	MORE	100	98.8	87	22	957	1.2		300						MASONARY							
WRS/NB/01	CHIGWERE	LUVUWO			7.2	4.5	350	32.5	5687.5	2.7	MODERATE	4	302400	278400	84000	218400		MASONARY					14.5		
WRS/NB/02	LIMPHASA	LIMPHASA			4.5	4.2	40	10	200	0.3	SEVERE	50	65000										20		
WRS/TO/01	TSWANE		14	MORE	8.4	3	200	125	12500	5.4	MODERATE							EARTH					18		
WRS/BT/01	MVONIHA		4		1.5	1	208	150	15600	0.5	MODERATE	12						CONCRETE	757.00	NO			17		
WRS/BT/02	MTENJERA		14	MORE	2.3	1	250	194	24250	1.3	SEVERE	12						MASONARY	640.00		0.75	CONCRETE	47		
WRS/BT/03	MILALA		14		1.75	0.75	200	112	11200	0.75	MODERATE	10						EARTH	657.00	YES	6		27		
WRS/BT/04	CHILEKA		14		2.5	0.5	380	281	53390	2	less	8						EARTH	742.00	YES	6		29		
WRS/BLK/01	MAPANDO		1						0																

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	Spillway					Intake structure		Water Rights						Portable water		
			Probable max flood (m ³ /s)	Annual avg number of overflow from spillway	Previous Max. Discharge (m ³ /s)	Year of occurrence	Return period	Bottom outlet; Inclined outlet; Intake tower	Other [specify]		Type	Length (m)	Discharge m ³ /s	Size of open canal	Size of piped canal	Intake Water m ³ /day	Treatment plant	Treatment method [If any specify]
											Open (Earth); Open(masonry); Pipe (steel); Pipe (PVC)							
WRSKU/01	CHISUWE		6					bottom outlet										
WRSKU/02	CHISULU		6															
WRSKU/03	ESTATE 81	CHAGUMULIRA		none				none		no	Pipe (steel); Pipe (PVC)	40		40	40			
WRSKU/04	CHIMBWAZI		6						pumping and pipeline		PIPE(PVC)	2000						
WRSDA/03	MBAVI (NYAGALA)	MUWONJEZI						bottom outlet		no	pipi (steel)	2000						
WRSDA/01	CHMUNGU	CHAWAWA						bottom outlet		yes	earth							
WRSNC/02	DWAZI	DWAZI									earth	3500						
WRSNC/01	CHILANGAWALI	CHILANGAWALI						river diversion		no	earth, pipe (PCV)	375						
WRSKK/01	MNDIRA					2011		bottom outlet		yes	earth	800		0.77				
WRSRU/04	KHUWUKUWU	KHUWUKUWU																
WRSRU/03	KAMONOLI		7															
WRSRU/02	ZOROKERE	HEWE		once	7.44	2011		bottom outlet		registered	masonry	1250						
WRSRU/01	SOUTH RUKURU	SOUTH RUKURU																
WRSMZ/06	KAMATAMBO					2008		bottom outlet										
WRSMZ/05	KANYANJE	KANYENJE																
WRSMZ/04	MANYAMULA	MANYAMULA																
WRSMZ/03	MAWOWO		7			2011		BOTTOM OUTLET		UNREGISTERED	MASONARY	372		0.1				
WRSMZ/2	ZACHULU	ZACHULU							DAMAGED	REGISTERED	EARTH							
WRSMZ/01	KAMTOWA	KAMTOWA																
WRSKA/01	KARONGA LAKESHORE	KA LAKESHORE																
WRSKA/06	LEHA	KARONGA									MANSONARY	110		0.18				
WRSCK/01	DZENJE		1							UNREGISTERED	MANSONARY	244						
WRSCK/02	NYAKAMBA		1	Once		2011	2012				PIPE (PVC)							
WRSCK/03	DZUMANI		1	NONE							EARTH	400						
WRSCK/04	ZIMPUSI		1					INCLINED OUTLET			PIPE (PVC)							
WRSZA/01	MLUNGUZI		2	375						REGISTERED					34	YES	CHEMICAL	FILTATION
WRSZA/02	NAMITUKUTA		2					INCLINED OUTLET		UNREGISTERED	EARTH							
WRS/CP/03	CHENDO		9					BOTTOM OUTLET			PIPE (PVC)	300		6				
WRS/CP/02	NAMPOHA		9					BOTTOM OUTLET			EARTH	300		0.52				
WRS/CP/01	IBULUMA		9					BOTTOM OUTLET		UNREGISTERED	MANSONARY			4.2				
WRS/TO/02	THUNGA		14	100				BOTTOM OUTLET		REGISTERED								
WRS/NB/01	CHIGWERE	LUVUWO									MANSONARY	800		0.72				
WRS/NB/02	LIMPHASA	LIMPHASA						BOTTOM OUTLET		REGISTERED	MANSONARY	7015						
WRS/TO/01	TSWANE		14			2012	2012			REGISTERED								
WRS/BT/01	MVONIHA		4															
WRS/BT/02	MTENJERA		14			2011	2012											
WRS/BT/03	MILALA		14			2011	2012			UNREGISTERED	MASONARY	225						
WRS/BT/04	CHILEKA		14								MASONARY	220						
WRS/BLK/01	MAPANDO		1															

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	Irrigation				Avg income of non-irrig. Land farmers (MK/farmer)	Livestock breeding water										Fish culture							
			Non-irrig. Crops & cultivation area					Intake water (m ³ /day)	Kind & Number of Livestock						Number of farmers using breeding water	Market for selling cultured fish (place)	Annual income of breeding farmers (MK/farmer)	Intake water (m ³ /day)	Kind & Number of cultured fish						
			Crop	Area(ha)	Crop	Area (ha)			Kind (Name)	Number	Kind (Name)	Number	Kind (Name)	Number						Kind (Name)	Number				
WRSKU01	CHISUWE																								
WRSKU02	CHISULU					40000																			
WRSKU03	ESTATE 81	CHAGUMULIRA																							
WRSKU04	CHIMBWAZI																								
WRSDA03	MBAVI (NYAGALA)	MUWONJEZI																							
WRSDA01	CHIMUNGU	CHAWAWA																							
WRSNC02	DWAZI	DWAZI																							
WRSNC01	CHILANGAWALI	CHILANGAWALI		tobacco		80		chambo		500						68	consumed								
WRSKK01	MNDIRA						60000																		
WRSRU04	KHUKUKU	KHUKUKU																							
WRSRU03	KAMONOLI													Milamba		200									
WRSRU02	ZOROKERE	HEWE																							
WRSRU01	SOUTH RUKURU	SOUTH RUKURU																							
WRSMZ06	KAMATAMBO																								
WRSMZ05	KANYANJE	KANYENJE					200000	1.4	cattle		300	goats		100	sheep		30		45	Embangweni	200				
WRSMZ04	MANYAMULA	MANYAMULA		BEANS,SOY A.GNUTS		2.9	160000												269	MANYAMULA					
WRSMZ03	MAWOWO						25500		CATTLE		40	GOAT				33			1	EMBANGWENI	400000				
WRSMZ2	ZACHULU	ZACHULU																	350						
WRSMZ01	KAMTOWA	KAMTOWA		SPOTATO, GNUTS,SO YA,BEANS, MILLET		117.8	220000		CATTLE		300	GOATS				400			20	YESAYA NKOSI					
WRSKA01	KARONGA LAKESHORE	KA LAKESHORE	CASSAVA		144	RICE	288	1000000																	
WRSKA06	LEHA	KARONGA																							
WRSCK01	DZENJE																								
WRSCK02	NYAKAMBA																								
WRSCK03	DZUMANI																								
WRSCK04	ZIMPUSI																								
WRSZA01	MLUNGUZI																								
WRSZA02	NAMITUKUTA																								
WRSKP03	CHENDO		9	SOYA		180	COTTON	10	500000		CATTLE		180	GOATS		10200	PIG		800	SHEEP	32	15	CHENDO	140000	
WRSKP02	NAMPOHA		9																						
WRSKP01	IBULUMA		9																						
WRS/TO02	THUNGA		14																						
WRSNB01	CHIGWERE	LUVUWO					56544	60	CATTLE		800	GOATS		200	SHEEP		100	PIGS		300		200	MZUZU	300000	
WRSNB02	LIMPHASA	LIMPHASA					350000															5	LIMPHASA	60000	CHAMBO
WRS/TO01	TSWANE		14																						
WRSBT01	MVONIHA		4																						
WRSBT02	MTENJERA		14																						
WRSBT03	MILALA		14																						
WRSBT04	CHILEKA		14																						
WRS/BLK01	MAPANDO		1																						

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	Fish culture										WUA Organised; No	Annual fee (MK/year)	Water Right payment	If yes					
			Kind & Number of cultured fish						Number of breeding farmers	Market for selling cultured fish	Average annual income of breeding farmers (MK/year)	Amount (MK/Year)				Dam body (embarkment); Abutment	Spillway; Bottom outlet	Inclined outlet; Intake tower	Gate; Canal; Access road		
			Number	Kind (Name)	Number	Kind (Name)	Number	Kind (Name)													
WRS/KU/01	CHISUWE		6																		
WRS/KU/02	CHISULU		6										no								
WRS/KU/03	ESTATE 81	CHAGUMULIRA																			
WRS/KU/04	CHIMBWAZI		6																		
WRS/DA/03	MBAVI (NYAGALA)	MUWONJEZI																			
WRS/DA/01	CHIMUNGU	CHAWAWA																			
WRS/NC/02	DWAZI	DWAZI																			
WRS/NC/01	CHILANGAWALI	CHILANGAWALI											no		no						
WRS/KK/01	MNDIRA												organised		yes		3300				yes
WRS/RU/04	KHUWUKUWU	KHUWUKUWU																			
WRS/RU/03	KAMONOLI		7																		
WRS/RU/02	ZOROKERE	HEWE											organised		500	yes	1000				
WRS/RU/01	SOUTH RUKURU	SOUTH RUKURU																			
WRS/MZ/06	KAMATAMBO																				
WRS/MZ/05	KANYANJE	KANYENJE																			
WRS/MZ/04	MANYAMULA	MANYAMULA																			
WRS/MZ/03	MAWOWO		7	2600						25	MANYAMULA	25000	NO								
WRS/MZ/2	ZACHULU	ZACHULU																			
WRS/MZ/01	KAMTOWA	KAMTOWA																EMBARKMENT	SPILLWAY		
WRS/KA/01	KARONGA LAKESHORE	KA LAKESHORE																			
WRS/KA/06	LEHA	KARONGA											NO		NO						
WRS/CK/01	DZENJE		1										NO								
WRS/CK/02	NYAKAMBA		1																		
WRS/CK/03	DZUMANI		1										NO		NO						
WRS/CK/04	ZIMPUSI		1																		
WRS/ZA/01	MLUNGUZI		2																		
WRS/ZA/02	NAMITUKUTA		2																		
WRS/CP/03	CHENDO		9										NO								YES
WRS/CP/02	NAMPOHA		9																		
WRS/CP/01	IBULUMA		9																		
WRS/TO/02	THUNGA		14																		
WRS/NB/01	CHIGWERE	LUVUWO																YES			
WRS/NB/02	LIMPHASA	LIMPHASA								5	LIMPHASA	60000	YES		YES		1000	YES	YES		YES
WRS/TO/01	TSWANE		14																		
WRS/BT/01	MVONIHA		4																		
WRS/BT/02	MTENJERA		14																		
WRS/BT/03	MILALA		14																		
WRS/BT/04	CHILEKA		14																		
WRS/BLK/01	MAPANDO		1																		

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	Major items of maintenance & cost														
			Other [specify]	Item	Cost (MK)	Item	Cost (MK)	Item	Cost (MK)	Item	Cost (MK)	Item	Cost (MK)	Item	Cost (MK)		
			WRS/KU/01	CHISUWE	6												
WRS/KU/02	CHISULU	6															
WRS/KU/03	ESTATE 81	CHAGUMULIRA															
WRS/KU/04	CHIMBWAZI	6	bush clearing and spillway desaturated														
WRS/DA/03	MBAVI 1(NYAGALA)	MUWONJEZI															
WRS/DA/01	CHIMUNGU	CHAWAWA															
WRS/NC/02	DWAZI	DWAZI															
WRS/NC/01	CHILANGAWALI	CHILANGAWALI															
WRS/KK/01	MNDIRA					bottom outlet	800000	road access	600000	canals	600000						
WRS/RU/04	KHUWUKUWU	KHUWUKUWU															
WRS/RU/03	KAMONOLI	7															
WRS/RU/02	ZOROKERE	HEWE				pipe	19000										
WRS/RU/01	SOUTH RUKURU	SOUTH RUKURU															
WRS/MZ/06	KAMATAMBO																
WRS/MZ/05	KANYANJE	KANYENJE		road	200000												
WRS/MZ/04	MANYAMULA	MANYAMULA															
WRS/MZ/03	MAWOWO	7				PIPES		CANAL		CRES							
WRS/MZ/2	ZACHULU	ZACHULU															
WRS/MZ/01	KAMTOWA	KAMTOWA															
WRS/KA/01	KARONGA LAKESHORE	KA LAKESHORE															
WRS/KA/06	LEHA	KARONGA		SPILLWAY	100000	INTAKE STRUCTURE	600000	DREDGING	400000								
WRS/CK/01	DZENJE	1															
WRS/CK/02	NYAKAMBA	1															
WRS/CK/03	DZUMANI	1															
WRS/CK/04	ZIMPUSI	1															
WRS/ZA/01	MLUNGUZI	2															
WRS/ZA/02	NAMITUKUTA	2															
WRS/CP/03	CHENDO	9				CANAL	78000	RESERVOIR	12000								
WRS/CP/02	NAMPOHA	9															
WRS/CP/01	IBULUMA	9															
WRS/TO/02	THUNGA	14															
WRS/NB/01	CHIGWERE	LUVUWO															
WRS/NB/02	LIMPHASA	LIMPHASA		ROAD	1000	CANAL	1000										
WRS/TO/01	TSWANE	14															
WRS/BT/01	MVONIHA	4															
WRS/BT/02	MTENJERA	14															
WRS/BT/03	MILALA	14															
WRS/BT/04	CHILEKA	14															
WRS/BLK/01	MAPANDO	1															

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)									Rehabilitation							
			Annual avg cost for sediment dredging		Source of cost		Issues of major structure			Issues on Management		Completed major work items						
			Reservoir (MK)	Canal (MK)	Govt; WUA	Other [specify]	Leakage; Deterioration	Sedimentation (Canal/ Reservoir)	Others [Specify]	Man power; Budget; knowledge on operation rule & maintenance	Others [Specify]	1	2	3	4			
WRS/KU/01	CHISUWE		6															
WRS/KU/02	CHISULU		6															
WRS/KU/03	ESTATE 81	CHAGUMULIRA																
WRS/KU/04	CHIMBWAZI		6															
WRS/DA/03	MBAVI (NYAGALA)	MUWONJEZI									Man power; Budget;							
WRS/DA/01	CHIMUNGU	CHAWAWA																
WRS/NC/02	DWAZI	DWAZI																
WRS/NC/01	CHILANGAWALI	CHILANGAWALI						Canal Sedimentation			lack of capacity building		weir construction					
WRS/KK/01	MNDIRA			200000									bottom outlet canal	access road				
WRS/RU/04	KHUWUKUWU	KHUWUKUWU																
WRS/RU/03	KAMONOLI		7															
WRS/RU/02	ZOROKERE	HEWE			GOVT								Headwork					
WRS/RU/01	SOUTH RUKURU	SOUTH RUKURU																
WRS/MZ/06	KAMATAMBO																	
WRS/MZ/05	KANYANJE	KANYANJE											road					
WRS/MZ/04	MANYAMULA	MANYAMULA																
WRS/MZ/03	MAWOWO		7				NAZARENE(WORLD VISION)				KNOWLEDGE ON MANAGEMENT		SCHEME	DAM MAINTANANCE				
WRS/MZ/2	ZACHULU	ZACHULU																
WRS/MZ/01	KAMTOWA	KAMTOWA											EMBARKMENT	SPILLWAY				
WRS/KA/01	KARONGA LAKESHORE	KA LAKESHORE											CANAL CONSTRUCTION					
WRS/KA/06	LEHA	KARONGA						Canal sedimentation	RESERVOIR SEDIMATION	INTAKE BROKEN								
WRS/CK/01	DZENJE		1															
WRS/CK/02	NYAKAMBA		1						LEAKAGE FROM DAM	SPILLWAY DETERIORATION								
WRS/CK/03	DZUMANI		1										SUNKEN BOREHORE					
WRS/CK/04	ZIMPUSI		1															
WRS/ZA/01	MLUNGUZI		2	285300			SOUTHERN REGION WATER BOARD		YES	SPILLWAY DETERIORATION								
WRS/ZA/02	NAMITUKUTA		2															
WRS/CP/03	CHENDO		9	12000	78000		WVI AND FARMERS CONTRIBUTION	YES	YES	SPILLWAY DETERIORATION			CANALS	RESERVOIRS				
WRS/CP/02	NAMPOHA		9															
WRS/CP/01	IBULUMA		9															
WRS/TO/02	THUNGA		14															
WRS/NB/01	CHIGWERE	LUVUWO											CANALS	DAMS				
WRS/NB/02	LIMPHASA	LIMPHASA												CANALS	SPILLWAY BAND			
WRS/TO/01	TSWANE		14															
WRS/BT/01	MVONIHA		4															
WRS/BT/02	MTENJERA		14															
WRS/BT/03	MILALA		14															
WRS/BT/04	CHILEKA		14															
WRS/BLK/01	MAPANDO		1															

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	Rehabilitation										Design doc & drawings (available; not available)	If available specify Title of document		
			Year of completion	Cost (MK)	Source of budget	Rehabilitation plan	If Yes Major work items				Budget	Donors				
							1	2	3	4						
WRS/KU/01	CHISUWE		6													
WRS/KU/02	CHISULLU		6													not available
WRS/KU/03	ESTATE 81	CHAGUMULIRA														
WRS/KU/04	CHIMBWAZI		6			no										not available
WRS/DA/03	MBAVI I(NYAGALA)	MUWONJEZI														
WRS/DA/01	CHIMUNGU	CHAWAWA														
WRS/NC/02	DWAZI	DWAZI														
WRS/NC/01	CHILANGAWALI	CHILANGAWALI	2011		Dire care Malawi	no					dire care Malawi					not available Is with MASAF
WRS/KK/01	MNDIRA		Aug-07	20200000	total land care	yes	resevoir gredging	canal lining	spillway rising		115,000,000					not available
WRS/RU/04	KHUKUKUWU	KHUKUKUWU														
WRS/RU/03	KAMONOLI		7													
WRS/RU/02	ZOROKERE	HEWE	2011	11,417,976	World Bank ,JFAD Malawi Govt											available
WRS/RU/01	SOUTH RUKURU	SOUTH RUKURU														
WRS/MZ/06	KAMATAMBO															
WRS/MZ/05	KANYANJE	KANYANJE	2007	200000		no										not available
WRS/MZ/04	MANYAMULA	MANYAMULA				NO										not available
WRS/MZ/03	MAWOWO		7	2010	17000000	NAZARENE COMPASSION	YES	CANAL	DAM CREST				SELF AND GOVT			not available
WRS/MZ/2	ZACHULU	ZACHULU														
WRS/MZ/01	KAMTOWA	KAMTOWA	1999		MASAF	YES	DREDGING	FISH FARMING					MASAF			not available
WRS/KA/01	KARONGA LAKESHORE	KA LAKESHORE	2011			YES	CANAL CONSTRUCTION					26400	GOVT			
WRS/KA/06	LEHA	KARONGA				YES	SPILLWAY	INTAKE	DREDGING RESERVOIR			2000000	NONE			not available
WRS/CK/01	DZENJE		1													
WRS/CK/02	NYAKAMBA		1	2008		NO										NOT AVAILABLE
WRS/CK/03	DZUMANI		1	2009	1000000	YES							DANISH CHRCH AID			NOT AVAILABLE
WRS/CK/04	ZIMPUSI		1													
WRS/ZA/01	MLUNGUZI		2			NO										AVAILABLE
WRS/ZA/02	NAMITUKUTA		2													
WRS/CP/03	CHENDO		9	2009	95000	WVI	YES	CANALS	PIPES FOR RESERVOIRS					CONTRIBUTIONS		
WRS/CP/02	NAMPOHA		9				YES	DAM	MAIN CANAL					GOVT		
WRS/CP/01	IBULUMA		9													NOT AVAILABLE
WRS/TO/02	THUNGA		14													
WRS/NB/01	CHIGWERE	LUVUWO	2011		IRAD CONTRIBUTION	YES	CANALS	MAIN GATE VALVE					FARMERS CONTRIBUTION			
WRS/NB/02	LIM PHASA	LIM PHASA	2010		1000 S											
WRS/TO/01	TSWANE		14													
WRS/BT/01	MVONHA		4													
WRS/BT/02	MTENJERA		14			NO										NOT AVAILABLE
WRS/BT/03	MILALA		14													
WRS/BT/04	CHILEKA		14			NO										NOT AVAILABLE
WRS/BLK/01	MAPANDO		1													

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)			Comments
			Date of Survey	Head of Survey	
WRS/KU/01	CHISUWE		6/03/09/20012	Temwa	
WRS/KU/02	CHISULU		6/03/09/20012	Temwa	The dam was wrongly constructed at Mavwenba river instead of Vimbira river hence it is dry because is an annual stream
WRS/KU/03	ESTATE 81	CHAGUMULIRA	03/09/20012	Temwa	
WRS/KU/04	CHIMBWAZI		6/03/09/20012	Temwa	
WRS/DA/03	MBAVI I(NYAGALA)	MUWONJEZI		Temwa	
WRS/DA/01	CHIMUNGU	CHAWAWA		Temwa	There is high level of siltation at the reservoir and spillway
WRS/NC/02	DWAZI	DWAZI		Temwa	Area is mountainous difficult to determine catchent area and crops are grown on mixed cropping
WRS/NC/01	CHILANGAWALI	CHILANGAWALI	2006/10/12	Temwa	The dam is broken and insufficient supply of water due to earth canals and water comes from spring
WRS/KK/01	MNDIRA		15/10/2012	omega	
WRS/RU/04	KHUWUKUWU	KHUWUKUWU		omega	The site is not a dam or developed site but is just a mere spring which plans are underway to develop it into a fully reservoir from that source of water
WRS/RU/03	KAMONOLI		7/06/10/2012	omega	Kamonoli is a pond dug in 2007 and kept Milamba fish for consumption ,there is no irrigation taking place
WRS/RU/02	ZOROKERE	HEWE	06/10/2012	omega	
WRS/RU/01	SOUTH RUKURU	SOUTH RUKURU		omega	Its a river that is used for irrigation
WRS/MZ/06	KAMATAMBO				
WRS/MZ/05	KANYANJE	KANYENJE	02/10/2012	omega	
WRS/MZ/04	MANYAMULA	MANYAMULA	02/10/2012	OMEGA	not in operational
WRS/MZ/03	MAWOWO		7/02/10/2012	OMEGA	
WRS/MZ/2	ZACHULU	ZACHULU	03/10/2012	OMEGA	IRRIGATION STOPPED IN 2008
WRS/MZ/01	KAMTOWA	KAMTOWA	03/10/2012	OMEGA	
WRS/KA/01	KARONGA LAKESHORE	KA LAKESHORE	10/10/2012	OMEGA	farmers contribute K26400 from their monthly and annual membership fees of k200/farmer per month and k 1000 /year
WRS/KA/06	LEHA	KARONGA	10/10/2012	OMEGA	ABANDONED IN 2009 DUE TO SEAPAGE
WRS/CK/01	DZENJE		1/13/10/2012	NYENGO	
WRS/CK/02	NYAKAMBA		1/14/10/2012	NYENGO	DAM POORLY DESIGNED HENCE ITS BROKEN AND SPILLWAY TOO LARGE
WRS/CK/03	DZUMANI		1/14/10/2012	NYENGO	NIGHT STORAGE RESERVOIR AVAILABLE
WRS/CK/04	ZIMPUSI		1/15/10/2012	NYENGO	THERE IS HEAVY SILTATION AND DAM IS DRY
WRSZA/01	MLUNGUZI		2/05/10/2012	SIMTOWE	
WRSZA/02	NAMITUKUTA		2/05/10/2012	SIMTOWE	NO REHABILITATION AND MAINTAINANCE
WRS/CP/03	CHENDO		9/09/10/2012	OMEGA	
WRS/CP/02	NAMPOHA		9/08/10/2012	OMEGA	
WRS/CP/01	IBULUMA		9/09/10/2012	OMEGA	STILL UNDER CONSTRUCTION
WRS/TO/02	FHUNGA		14/11/10/2012	NYENGO	
WRS/NB/01	CHIGWERE	LUVUWO	12/10/2012	OMEGA	
WRS/NB/02	LIMPHASA	LIMPHASA	13/10/2012	OMEGA	LACK OF MARKET
WRS/TO/01	TSWANE		14/4/10/2012	NYENGO	
WRS/BT/01	MVONIHA		4/11/10/2012	NYENGO	
WRS/BT/02	MTENJERA		14/10/10/2012	NYENGO	POOR UTILISED
WRS/BT/03	MILALA		14/11/10/2012	NYENGO	
WRS/BT/04	CHILEKA		14/11/10/2012	NYENGO	
WRS/BLK/01	MAPANDO		1/18/10/2012	CHARITY	ABANDONED FOR 6 YEARS,NO SPILLWAY

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	Location		RWDO/ISD	Dam										Dam Volume (m ³)	Purpose		Usage			
			District/City	Village		Accessibility	Identification & Marking on topo. Map	Dam Type		GPS Coordinates at Dam crest				Year of construction	Dam Height		crest length	Crest width	Portable water; Irrig.;Livestock; Fish culture; Hydropower	Other [Specify]	Effectively; Moderate; Poor; Abandoned	Others [specify]
								Earth; Masonry; Concrete	Others (Specify)	Longitudes	Latitudes	Elevation	Where coordinates are taken									
WRSLL50	MCHOKA		4 LILONGWE	THAULO		Accessible but with few difficulties		Earth		560551	8465983	1109	RIGHT		11.4	146	4	IRRIGATION; Livestock		MODERATE		
WRSLL49	THYOLA		4 LILONGWE	DZULUWANDA		Easily accessible		Earth		541360	8448991	507	RIGHT	1987	10	186	5	IRRIGATION AND FISHING		MODERATE		
WRSLL48	NYUNDO		4 LILONGWE	NYUNDO		Easily accessible		Earth		550704	8480273	1118	Middle	2006	4	168	4	IRRIGATION; Livestock		MODERATE		
WRSLL47	BANDA		4 LILONGWE	AYUNDA		Easily accessible				534723	8468385	1104	Middle	2007	4.5	364	3	IRRIGATION		MODERATE		
WRSLL46	MASUMBANKHUNDA		4 LILONGWE	OPOKOJAYISI		Easily accessible		EARTH		562161	8436075	1151	RIGHT	2006	6	240	5	IRRIGATION		POOR		
WRSLL45	UKONDE		4 LILONGWE	MSAKO		Easily accessible		EARTH		608826	8446166	1143	RIGHT	1963	5	210	6.3	IRRIGATION		MODERATE		
WRSLL44	KASEKESE		4 LILONGWE	MANKHAMBO		Very difficult to access		MASONARY		62219	8457753	1193	RIGHT	2006	2.3	10	0.7	IRRIGATION		MODERATE		
WRSLL43	NODZI		4 LILONGWE	CHADZA		Easily accessible		EARTH		592232	8435546	1093	RIGHT	2011	3	140	4	LIVESTOCK		POOR		
WRSLL42	CHAMADENGA		4 LILONGWE	CHAMADENGA		Accessible but with few difficulties		EARTH		595951	8435248	887	Left	1975	6	230	6.3	IRRIGATION, FISHING		POOR		
WRSLL41	GUNDAMTENGO		4 LILONGWE	GUNDAMTENGO		Easily accessible		EARTH		546092	8440281	1143	RIGHT	2002	3	80	5	IRRIGATION; Livestock		MODERATE		
WRSLL60	CHIPAPHALE		4 LILONGWE	CHATEKA		Accessible but with few difficulties		EARTH		538205	8473775	1113	RIGHT	1996	5			IRRIGATION AND FISHING		ABANDONED		
WRSLL59	KASANDULIKA		4 LILONGWE	KASANDULIKA		Accessible but with few difficulties			STREAM	604235	8470268	1086	Middle					IRRIGATION		MODERATE		
WRSLL58	CHILU		4 LILONGWE	NKHWAZI		Very difficult to access		MASONARY		619409	8460012	1102	RIGHT	2008	2.2	19	1.1	IRRIGATION		POOR		
WRSLL57	CHIPHANGU		4 LILONGWE	KALUPYA		Easily accessible		Earth		562488	8439659	1111	RIGHT	2004	4	135	4	IRRIGATION AND FISHING LIVESTOCK		POOR		
WRSLL56	KAMANZI		4 LILONGWE	MBUTO		Very difficult to access		MASONARY		538612	8439777	1166	LEFT	2005	3	25	1.1	IRRIGATION AND FISHING LIVESTOCK		ABANDONED		
WRSLL71	MADZIDZI		4 LILONGWE	FULAYILI		Easily accessible		Earth		547268	8463517	1185	Middle		1	200	1.5	IRRIGATION		ABANDONED		
WRSLL70	KAMADZI		4 LILONGWE	MSANGWA		Easily accessible		Earth		536390	8458119	1076	Left		8	175	3.7	IRRIGATION; Livestock		MODERATE		
WRSKU05	MBIRA		6 KASUNGU	MBIRA		Accessible but with few difficulties		Earth		551959	8563094	1036	Left		3.9	179	4.1	IRRIGATION AND FISHING LIVESTOCK		POOR		
WRSLL72	KANDIYANI		4 LILONGWE	KANDIYANI		Easily accessible		Earth		5658685	8456124	1139	Middle		5	290	5.2	IRRIGATION		EFFECTIVELY		
WRSLL55	MUDI		4 LILONGWE	PAMBWE		Easily accessible		Earth		532760	8480755	1062	RIGHT		8	190	4.2	IRRIGATION		EFFECTIVELY		
WRSLL54	KACHULE		4 LILONGWE	KACHULE		Easily accessible		Earth		6011728	8440921	1125	Middle		1963	2.9	190	3	IRRIGATION AND FISHING		POOR	
WRS	MPHESANKHULI		4 LILONGWE	KALAMBE		Accessible but with few difficulties		Earth		564220	8467286	1116	Middle		7	198	5	IRRIGATION AND FISHING LIVESTOCK		MODERATE		
WRSLL52	MBABVI		4 LILONGWE	MBABVI		Easily accessible		Earth		571725	8458421	1102	Left		1947	1	174	3	IRRIGATION		MODERATE	
WRSLL51	CHILIKHANDA		4 LILONGWE	CHILIKHANDA		Easily accessible		Earth		566488	8462896	1104	Middle		5	311	4	IRRIGATION		EFFECTIVELY		
WRSLL69	CHIDZALA		4 LILONGWE	CHAIMA		Accessible but with few difficulties		MASONARY		596876	8471409	1259	Middle	1982	6	100	3	LIVESTOCK		ABANDONED		
WRSLL68	CHIGUMUKIRE		4 LILONGWE	MANCHICHI		Very difficult to access		Earth		549461	8436593	1140	Middle	2003	3	100	6.3	IRRIGATION		ABANDONED		
WRSLL73	MTSUKANTHANGA		4 LILONGWE	MALIWA		Accessible but with few difficulties		Earth		553898	8441770	1133	Middle	2004	3	160	3.6	IRRIGATION AND FISHING LIVESTOCK		POOR		
WRSLL67	CHIKAZINGA		4 LILONGWE	CHISAMBA		Accessible but with few difficulties		Earth		587258	8426383	1171	Middle	2012	1	17	7	FISH CULTURE		EFFECTIVELY		
WRSLL66	LINGADZI		4 LILONGWE	SEZA		Easily accessible		Concrete		570199	8460058	1118	Middle	2006	6	150	9	IRRIGATION		EFFECTIVELY		
WRSLL64	CHISAMBA		4 LILONGWE	CHISAMBA		Easily accessible		Earth		587220	8426378	1168	RIGHT	2008	3	30	15	FISH CULTURE		EFFECTIVELY		
WRS/DZ.01	DOMBOLE		3 DEDZA	KUSELI		Accessible but with few difficulties		Earth		637171	8421791	1560	RIGHT		5	120	4	IRRIGATION		ABANDONED		
WRS/DZ.02	KASANKHA		3 DEDZA	KASANKHA		Easily accessible		MASONARY		643693	8424260	1499	Left	2001	2	25	0.8	IRRIGATION		POOR		
WRSLL63	KATETE		4 LILONGWE	NKHOMA		Easily accessible		Earth		619562	8446121	1165	Middle	1977	2	25	25	IRRIGATION AND FISHING		POOR		
WRSLL62	CHIPAPHALE		4 LILONGWE	MKONDE		Easily accessible		Earth		623063	8454136	1032	Middle	2006	1.5	71	3.6	IRRIGATION		POOR		
WRSLL61	LINGADZI		4 LILONGWE	CHILIKHANDA		Accessible but with few difficulties		Earth		566360	8464485	766	RIGHT		3.5	197	4	IRRIGATION		EFFECTIVELY		
WRS/DZ.04	BWANJE		3 DEDZA	KACHIDAMOTO		Easily accessible		Earth		666678	8420939	540	RIGHT									
WRS/DZ.03	KASUMBU		3 DEDZA	KANYONDO		Easily accessible		Earth		645492	8417896	1562	RIGHT	2000	1.5	20	25	FISH CULTURE		ABANDINED		
WRSLL65	GOLIATI		4 LILONGWE	GOLIATI		Easily accessible		Earth		5391321	8434960	1240	Middle	2001	5	195	6.4	IRRIGATION AND FISHING LIVESTOCK		MODERATE		
WRSLL76	MTEDZA		4 LILONGWE	KANDIWO		Accessible but with few difficulties		Earth		574736	8467290	1164	Middle	2007				IRRIGATION		MODERATE		

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Reservoir Code	Reservoir Name	River (WRA)															Spillway									
			Rotation during dry season per week	Normal Water Level (m)	Water Level (m)	Length of water in reservoir (m)	Width of water reservoir (m)	Approx. Reservoir area [0.5*L*B] (m ²)	The difference between Normal water level and Lowest Water level (approx. m)	Sediment in the Reservoir	Catchment Area (km ²)	Annual inflow (m ³)	Storage Capacity (m ³)	Effective storage capacity (m ³)	Dead Capacity (m ³)	Water utilisation capacity (m ³)	Flood control Capacity (m ³)	Type	Crest elevation (m)	Temporary crest raising	If 'Yes'		Length (m)	Design discharge (m ³ /s)		
																					Height of crest (m)	Material of raising				
WRSLL/50	MCHOKA		4			500	146	36500									CONCRETE	7.40	NO							
WRSLL/49	THYOLA		4		7	5	200	186	18600	2	less		10	100000	40000	60000	40000	MASONARY	2.00	NO				15		
WRSLL/48	NYUNDO		4		2.5	1.5	75	168	6300	1			80		0.5	1	CONCRETE	1.00						0.1		
WRSLL/47	BANDA		4		5	0.5	200	80	8000	4.5			5													
WRSLL/46	MASUMBANKHUNDA		4	THRICE	4	1	40	50	1000	3			60				EARTH	2.00	YES	4	SAND BAG			6		
WRSLL/45	UKONDE		4		4	2	200	132	13200	4			40				MASONARY	1.00								
WRSLL/44	KASEKESE		4	once	1.7	1	60	8	240	0.7	MODERATE		2				MASONARY	0.30	YES	0.1	SAND BAG			1.7		
WRSLL/43	NSODZI		4		3	1	30	50	750	2			3													
WRSLL/42	CHAMADENGA		4	MORE	12	5	150	100	7500	7	SEVERE		2				CONCRETE		NO							
WRSLL/41	GUNDAMTENGO		4	TWICE	2	1	70	60	2100	1	MODERATE		4500	5000	5000		MASONARY	0.60	NO					18.5		
WRSLL/60	CHIPAPHALE		4		4				2500	4	SEVERE		8	2												
WRSLL/59	KASANDULIKA		4	TWICE					0				1000													
WRSLL/58	CHILU		4	TWICE	2				475	2	SEVERE		5													
WRSLL/57	CHIPHANGU		4	MORE	3	1	400	107	21400	2	less		9	80000	80000	100000	70000	MASONARY	0.50	NO					13	
WRSLL/56	KAMANZI		4		2	0.5	200	25	2500	1.5	less															
WRSLL/71	MADZIDZI		4	MORE					20000				18				CONCRETE	0.70							1.6	
WRSLL/70	KAMADZI		4	MORE	6	3	170	140	11900	3	less			133000				MASONARY	0.70			SAND BAG			13.9	
WRSKU/05	MBIRA		6						0								MASONARY	114.00							16	
WRSLL/72	KANDIYANI		4	MORE	5	3	400	290	58000	2	less		10				CONCRETE	2.00	NO						15	
WRSLL/55	MUDI		4	MORE	6	3	30	20	300	3			240				MASONARY	0.70	YES	0.7	SAND BAG				18	
WRSLL/54	KACHULE		4	once	2.9	0.75	300	150	22500	2.15	less		12				EARTH	2.00	NO						20	
WRS	MPHESANKHULI		4	MORE	8	6	751	198	74349	2	less						EARTH	1.16	NO						1.25	
WRSLL/52	MBABVI		4	MORE	1	0.4	500	150	37500				150	1 BN	25M	50MILLION	3M	50 MILLION	100,000L /SEC	CONCRETE			0.6		20	100000
WRSLL/51	CHILIKHANDA		4	MORE	3	1	1140	294	167580	2	MODERATE		2		1772700	167580			CONCRETE	0.93						35
WRSLL/69	CHIDZALA		4				30	40	600																	
WRSLL/68	CHIGUMUKIRE		4		1.5	0.5	50	46	1150	1	MODERATE		10		100000		10000		MANSONARY							
WRSLL/73	MTSUKANTHANGA		4	MORE	5	2	100	140	7000	3	SEVERE		12													
WRSLL/67	CHIKAZINGA		4	MORE	1	0.2	17	7	59.5	0.8			0.2													
WRSLL/66	LINGADZI		4	MORE	6	1	150	88	6600	5				350000	350000											
WRSLL/64	CHISAMBA		4	MORE	2.5	2.5	30	450	6750	0.5							EARTH	0.20	YES	0.4	EARTH				115	
WRS/DZ/01	DOMBOLE		3		3	1	0	0	4500	0																
WRS/DZ/02	KASANKHA		3	MORE	1		15	14	105	1			20				STEEL PIPE	0.15	NO						0.15	
WRSLL/63	KATETE		4	once	1.5	1	25	25	312.5	0.5																
WRSLL/62	CHIPAPHALE		4	once	1	3	34	30	510	0.7			17													
WRSLL/61	LINGADZI		4	once			255	77	9817.5				19.64													
WRS/DZ/04	BWANJE		3						0																	
WRS/DZ/03	KASUMBU		3						500																	
WRSLL/65	GOLIATI		4	MORE	2	1	60	62	7800	1			7.5													
WRSLL/76	MTEDZA		4	THRICE	5	3	15	10	75	2																

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Reservoir Code	Reservoir Name	River (WRA)	Spillway					Intake structure		Water Rights						Portable water		
			Probable max flood (m ³ /s)	Annual avg number of overflow from spillway	Previous Max. Discharge (m ³ /s)	Year of occurrence	Return period	Bottom outlet; Inclined outlet; Intake tower	Other [specify]		Type	Length (m)	Discharge m ³ /s	Size of open canal	Size of piped canal	Intake Water m ³ /day	Treatment plant	Treatment method [If any specify]
											Open (Earth); Open(masonry); Pipe (steel); Pipe (PVC)							
WRSLL50	MCHOKA		4															
WRSLL49	THYOLA		4				2012	May-12										
WRSLL48	NYUNDO		4															
WRSLL47	BANDA		4						BOTTOM OUTLET									
WRSLL46	MASUMBANKHUNDA		4							NOT REGISTERED								
WRSLL45	UKONDE		4							NOT REGISTERED	EARTH,PIPE (PVC)	180						
WRSLL44	KASEKESE		4				2012	May-12			EARTH,PIPE (PVC)	75	800	15				
WRSLL43	NSODZI		4															
WRSLL42	CHAMADENGA		4															
WRSLL41	GUNDAMTENGO		4							NOT REGISTERED								
WRSLL60	CHIPAPHALE		4															
WRSLL59	KASANDULIKA		4															
WRSLL58	CHILU		4								EARTH	100						
WRSLL57	CHIPHANGU		4				DEC- APRIL	MAY			EARTH	2000						
WRSLL56	KAMANZI		4															
WRSLL71	MADZIDZI		4															
WRSLL70	KAMADZI		4															
WRSKU05	MBIRA		6															
WRSLL72	KANDIYANI		4															
WRSLL55	MUDI		4								UNREGISTERED	PIPE(PVC)						
WRSLL54	KACHULE		4								UNREGISTERED							
WRS	MPHESANKHULI		4									MASONARY	200					
WRSLL52	MBABVI		4	100000	100000	1997					REGISTERED							
WRSLL51	CHILIKHANDA		4								REGISTERED							
WRSLL69	CHIDZALA		4															
WRSLL68	CHIGUMUKIRE		4															
WRSLL73	MTSUKANTHANGA		4															
WRSLL67	CHIKAZINGA		4															
WRSLL66	LINGADZI		4															
WRSLL64	CHISAMBA		4	NONE														
WRS/DZ/01	DOMBOLE		3									EARTH	40					
WRS/DZ/02	KASANKHA		3								WEIR	UNREGISTERED	EARTH					
WRSLL63	KATETE		4															
WRSLL62	CHIPAPHALE		4															
WRSLL61	LINGADZI		4								NOT REGISTERED							
WRS/DZ/04	BWANJE		3															
WRS/DZ/03	KASUMBU		3															
WRSLL65	GOLIATI		4															
WRSLL76	MTEDZA		4															

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	Portable water				Irrigation																							
			Service area	Number of taps on houses supplied		Water tariff (MK/month)		Intake term & water Intake				Irrigation area		Breakdown by irrigated crops																
				Tap	Houses	Tap	House	Avg whole season Discharge (m ³ /s)	Dry season only usage (month)		Discharge		name of place	ha	crop	Cultivation time & area														
									From	To	(m ³ /s)	Is the water used fulltime or rotation (days/week interval)				From	To	(ha)	crop	(ha)	From	to	crop	(ha)	From	to				
WRS/LL/50	MCHOKA		4									MCHOKA	50	MAIZE	OCT	JAN		2	TOBACCO		3	SEPT	NOV	VEGETABLES		10	SEPT	OCT		
WRS/LL/49	THYOLA		4					5000	JAN	DEC	10000	FULLTIME	THYOLA	52	MAIZE	MAY	AUG		20	BEANS		18	MAY	DEC	IPOTATO		12			
WRS/LL/48	NYUNDO		4									NYUNDO	70	MAIZE	SEPT	JAN			20	VEG		20	JAN	DEC	IPOTATO		3	JULY	SEPT	
WRS/LL/47	BANDA		4									KALOKWE	160	TOBACCO	OCT	JAN			90	G/NUTS		70	NOV	MARCH						
WRS/LL/46	MASUMBANKHUNDA		4									MASUMBA KHUNDA	6																	
WRS/LL/45	UKONDE		4									DONDA	5	MAIZE	AUG	NOV			4	BEANS		AUG	NOV		1					
WRS/LL/44	KASEKESE		4									KASEKESE	1	MAIZE	JUNE	NOV			1	VEGETABLES		0.1	MAY	NOV	BEANS		0.2	JUNE	OCT	
WRS/LL/43	NSODZI		4																											
WRS/LL/42	CHAMADENGA		4									NGALA	4	VEGATABLES	JAN	DEC			0.5	MAIZE		0.5	SEPT	DEC	TOBACCO		3	SEPT	DEC	
WRS/LL/41	GUNDAMTENGO		4									CHIPOKA	2	MAIZE	AUG	NOV			1.6	IPOTATO		AUG	MARCH		0.4					
WRS/LL/60	CHIPAPHALE		4									CHATEKA	5	MAIZE	SEPT	FEB			3	VEGATABLES		2	JUNE	DEC						
WRS/LL/59	KASANDULIKA		4									BALANGO MBE	30	TOMATO	APRIL	NOV			0.4	MAIZE		20.75	JULY	AUG	ONION		5	JULY	DEC	
WRS/LL/58	CHILU		4									NATULA MPHANGWE	4	MAIZE	MAY	AUG			2.5	TOMATO		0.5	JUNE	SEPT	BEANS		0.5	JULY	OCT	
WRS/LL/57	CHIPHANGU		4										10	MAIZE	MAY	AUG			5	BEANS		3	MAY	AUG	VEG		2	AUGUST	DEC	
WRS/LL/56	KAMANZI		4																											
WRS/LL/71	MADZIDZI		4																											
WRS/LL/70	KAMADZI		4									MSANGWA	116	TOBACCO	SEPT	JAN			116											
WRS/KU/05	MBIRA		6																											
WRS/LL/72	KANDIYANI		4									KANDIANI	14	CASSAVA	JUNE	AUG			2	BEANS		JUNE	NOV		8					
WRS/LL/55	MUDI		4									MUDI	13	TOBACCO	SEPT	OCT			90											
WRS/LL/54	KACHULE		4									KACHULE	2	MAIZE	APRIL	OCTOBER			1	BEANS		JUNE	NOV		0.5	VEGETABLES		0.5	JAN	DEC
WRS	MPHESANKHULI		4									TIKONDANE	12	MAIZE	JULY	AUG			5	TOBACCO		4	AUG	NOV						
WRS/LL/52	MBABVI		4									MBABVI	20																	
WRS/LL/51	CHILIKHANDA		4									CHILIKHANDA	170	TOBACCO	SEPT	MAY			150	MAIZE		20	NOV	MAY						
WRS/LL/69	CHIDZALA		4																											
WRS/LL/68	CHIGUMUKIRE		4									MANCHICHI	5	MAIZE	AUG	FEB			3	BEANS		AUG	DEC		1	POTATES		1	AUG	DEC
WRS/LL/73	MTSUKANTHANGA		4									KACHAWA	65	TOBACCO	SEPT	OCT			63	MACADEMIA		2	JUNE	DEC						
WRS/LL/67	CHIKAZINGA		4																											
WRS/LL/66	LINGADZI		4									BOREHORE	2	BEANS	JULY	OCT			2											
WRS/LL/64	CHISAMBA		4																											
WRS/DZ/01	DOMBOLE		3																											
WRS/DZ/02	KASANKHA		3									KASANKHA	10	MAIZE	JULY	DEC			12	VEGETABLES		12	JAN	DEC	PEAS		2	JULY	DEC	
WRS/LL/63	KATETE		4									KATETE	2	MAIZE	JULY	NOV			0.5	VEGETABLES		0.25	APRIL	JUNE						
WRS/LL/62	CHIPAPHALE		4									MKHONDE		MAIZE																
WRS/LL/61	LINGADZI		4									CHILIKHANDA	170	TOBACCO	SEP	FEB			162											
WRS/DZ/04	BWANJE		3																											
WRS/DZ/03	KASUMBU		3																											
WRS/LL/65	GOLIATI		4									GOLIATI	10																	
WRS/LL/76	MTEDZA		4									MTEDZA	4.2	MAIZE	JUNE	DEC			3	BEANS		1	MAY	JULY	TOMATO		1	SEPT	NOV	

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	Irrigation																																		
			Breakdown by irrigated crops															Number of Farmers with Irrig. Land	Market Name for selling crops (place)	Avg annual income of farmers with irrig. Land (MK/farmer)	Number of farmers with non-irrig. Land	Non-irrig. Crops & cultivation area															
			Cultivation time & area																			Crop	Area (ha)	Crop	Area (ha)												
			crop	(ha)	From	to	crop	(ha)	From	TO	CROP	(ha)	From	TO	CROP	FROM	TO									(ha)											
WRS/LL/50	MCHOKA		4	BEANS		5	SEPT		OCT		TOMATO		5	SEPT		NOV		IPOTATO		10	SEPT		NOV		168	VENDORS		20000		200	MAIZE		15	SOYA		10	
WRS/LL/49	THYOLA		4																						412	CHILEKA		400000		522	MAIZE		50	G/NUTS		30	
WRS/LL/48	NYUNDO		4	TOBACCO		18	SEPT		NOV		TOMATO		18	SEP		DEC		ONION		2	SEPT		DEC		150	VENDORS		15000		2100							
WRS/LL/47	BANDA		4																																		
WRS/LL/46	MASUMBANKHUNDA		4																						40	CHIGWIRI		50000		13							
WRS/LL/45	UKONDE		4																						120	MSAKO		100000		2000	MAIZE			SOYA			
WRS/LL/44	KASEKESE		4																						55	VENDORS		50000		130	MAIZE		150	SOYA		30	
WRS/LL/43	NSODZI		4																																		
WRS/LL/42	CHAMADENGA		4																						30	KACHETA		30000		300	TOBACCO		10	MAIZE		30	
WRS/LL/41	GUNDAMTENGO		4																						10	NSUNDWE		20000		20	SWEETPOTATO						
WRS/LL/60	CHIPAPHALE		4																						50	KASIYA		10000		0							
WRS/LL/59	KASANDULIKA		4																						135	MUSAMBO		50000		135	TOBACCO		70	SOYA		20	
WRS/LL/58	CHILU		4																						125	NATURA		4000		125	MAIZE		2	G/NUTS		4	
WRS/LL/57	CHIPHANGU		4	TOMATO		2	JAN		DEC		ONION		3	JUNE		OCT		SUGARCANE		1	OCT		JUNE		150	LJKUNI		70000			MAIZE		40	TOBACCO		30	
WRS/LL/56	KAMANZI		4																																		
WRS/LL/71	MADZIDZI		4																																		
WRS/LL/70	KAMADZI		4																																		
WRS/KU/05	MBIRA		6																																		
WRS/LL/72	KANDIYANI		4																																		
WRS/LL/55	MUDI		4																																		
WRS/LL/54	KACHULE		4	TOBACCO		1	SEPT		DEC		0.5															56	NATHENJE		20000		2000	MAIZE			TOBACCO		
WRS	MPHESANKHULI		4																							26	VENDORS		156000								
WRS/LL/52	MBABVI		4																																		
WRS/LL/51	CHILIKHANDA		4																																		
WRS/LL/69	CHIDZALA		4																																		
WRS/LL/68	CHIGUMUKIRE		4																							30	NSUNDWE		10000		40	MAIZE		30	SOYA		10
WRS/LL/73	MTSUKANTHANGA		4																																		
WRS/LL/67	CHIKAZINGA		4																																		
WRS/LL/66	LINGADZI		4																																		
WRS/LL/64	CHISAMBA		4																																		
WRS/DZ/01	DOMBOLE		3																																		
WRS/DZ/02	KASANKHA		3																																		
WRS/LL/63	KATETE		4																							15	WILLIAM MURRAY SEC SCHOOL		300000		1000						
WRS/LL/62	CHIPAPHALE		4																							30	NKHOMA		20000		200						
WRS/LL/61	LINGADZI		4																																		
WRS/DZ/04	BWANJE		3																																		
WRS/DZ/03	KASUMBU		3																																		
WRS/LL/65	GOLIATI		4																							1					60	MAIZE			G/NUTS		
WRS/LL/76	MTEDZA		4	VEGETABLES		0.5	MAY		DEC		TOBACCO		0.5	SEPT		NOV										96	MBANGOMBE		16000		130						

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Reservoir Code	Reservoir Name	River (WRA)	Irrigation					Livestock breeding water											Fish culture			
			Non-irrig. Crops & cultivation area				Avg income of non-irrig. Land farmers (MK/farmer)	Intake water (m ³ /day)	Kind & Number of Livestock						Number of farmers using breeding water	Market for selling cultured fish (place)	Annual income of breeding farmers (MK/farmer)	Intake water (m ³ /day)	Kind & Number of cultured fish			
			Crop	Area(ha)	Crop	Area (ha)			Kind (Name)	Number	Kind (Name)	Number	Kind (Name)	Number						Kind (Name)	Number	
WRSLL50	MCHOKA	4					200000			CATTLE	150	GOATS	3100						VENDORS	134000		
WRSLL49	THYOLA	4					200000	1000	50									1	CHILEKA	50000		
WRSLL48	NYUNDO	4								CATTLE	4000	GOATS	3000					2100	MPONDA	135000		CATFISH
WRSLL47	BANDA	4																				
WRSLL46	MASUMBANKHUNDA	4					20000			CATTLE	50	GOATS	70									
WRSLL45	UKONDE	4	G/NUTS				30000															
WRSLL44	KASEKESE	4	PAPRIKA	50	PAPRIKA	50	40000															
WRSLL43	NSODZI	4								CATTLE	100							15	MITUNDU/NANJIRI	160000		
WRSLL42	CHAMADENGA	4					100000															
WRSLL41	GUNDAMTENGO	4					50000			CATTLE	100											
WRSLL60	CHIPAPHALE	4						2000		CATTLE	100	GOATS	50						KASIYA			
WRSLL59	KASANDULIKA	4	G/NUTS	3			30000															
WRSLL58	CHILU	4	SOYA	3.5																		
WRSLL57	CHIPHANGU	4	SOYA	20	G/NUTS	20	70000	600		CATTLE	50	DONKEY	10									
WRSLL56	KAMANZI	4																				
WRSLL71	MADZIDZI	4																				
WRSLL70	KAMADZI	4																				
WRSKU05	MBIRA	6																				
WRSLL72	KANDIYANI	4																				
WRSLL55	MUDI	4																				
WRSLL54	KACHULE	4								CATTLE	41	GOATS	150	DONKEY	15				NATHENJE			
WRS	MPHESANKHULI	4						15000		CATTLE	250							50	COLD STORAGE			5 MILAMBA
WRSLL52	MBABVI	4																				
WRSLL51	CHILIKHANDA	4																				
WRSLL69	CHIDZALA	4								CATTLE	400	GOATS	1000						CHEZI			
WRSLL68	CHIGUMUKIRE	4	G/NUTS	10	TOBACCO	10	30000	2000		CATTLE	100	GOATS	200									
WRSLL73	MTSUKANTHANGA	4						2000		CATTLE	101								LOCALLY	200000		
WRSLL67	CHIKAZINGA	4																				
WRSLL66	LINGADZI	4																				
WRSLL64	CHISAMBA	4																				
WRS/DZ/01	DOMBOLE	3																				
WRS/DZ/02	KASANKHA	3																				
WRSLL63	KATETE	4								PIGS	11							2	VENDORS	50000		MILAMBA
WRSLL62	CHIPAPHALE	4					50000															
WRSLL61	LINGADZI	4																				
WRS/DZ/04	BWANJE	3																				
WRS/DZ/03	KASUMBU	3																				
WRSLL65	GOLIATI	4	TOBACCO		SOYA					CATTLE	60								NAMITETE	200000		
WRSLL76	MTEDZA	4					71000															

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	Fish culture										WUA Organised; No	Annual fee (MK/year)	Water Right payment	If yes Amount (MK/Year)	Dam body (embarkment); Abutment	Spillway; Bottom outlet	Inclined outlet; Intake tower	Gate; Canal; Access road	
			Kind & Number of cultured fish								Number of breeding farmers	Market for selling cultured fish									Average annual income of breeding farmers (MK/year)
			Number	Kind (Name)	Number	Kind (Name)	Number	Kind (Name)	Number	Kind (Name)											
WRSLL/50	MCHOKA		4																		
WRSLL/49	THYOLA		4																		
WRSLL/48	NYUNDO		4	150						1	VENDORS	10000	NO	200	NO		YES				
WRSLL/47	BANDA		4																		
WRSLL/46	MASUMBANKHUNDA		4																		
WRSLL/45	UKONDE		4										ORGANISED	3000		YES					
WRSLL/44	KASEKESE		4										ORGANISED	1000							
WRSLL/43	NSODZI		4																		
WRSLL/42	CHAMADENGA		4																		
WRSLL/41	GUNDAMTENGO		4														YES				
WRSLL/60	CHIPAPHALE		4										NO	NO							
WRSLL/59	KASANDULIKA		4																		
WRSLL/58	CHILU		4																		
WRSLL/57	CHIPHANGU		4																		
WRSLL/56	KAMANZI		4																		
WRSLL/71	MADZIDZI		4																		
WRSLL/70	KAMADZI		4																		
WRSKU/05	MBIRA		6																		
WRSLL/72	KANDIYANI		4																		
WRSLL/55	MUDI		4														YES				
WRSLL/54	KACHULE		4																		
WRS	MPHESANKHULI		4							70	NSARU	36000	NO								
WRSLL/52	MBABVI		4																		
WRSLL/51	CHILIKHANDA		4																		
WRSLL/69	CHIDZALA		4																		
WRSLL/68	CHIGUMUKIRE		4																		
WRSLL/73	MTSUKANTHANGA		4																		
WRSLL/67	CHIKAZINGA		4	CHAMBO	800					7			ORGANISED	NO							
WRSLL/66	LINGADZI		4																		
WRSLL/64	CHISAMBA		4																		
WRS/DZ/01	DOMBOLE		3																		
WRS/DZ/02	KASANKHA		3																		
WRSLL/63	KATETE		4	3000	SWIRIRI					5	NKHOMA	10000	NO								
WRSLL/62	CHIPAPHALE		4										NO				YES				
WRSLL/61	LINGADZI		4																		
WRS/DZ/04	BWANJE		3																		
WRS/DZ/03	KASUMBU		3																		
WRSLL/65	GOLIATI		4										NO				YES				
WRSLL/76	MTEDEZA		4																		

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	Major items of maintenance & cost														
			Other [specify]	Item	Cost (MK)	Item	Cost (MK)	Item	Cost (MK)	Item	Cost (MK)	Item	Cost (MK)	Item	Cost (MK)		
WRSLL50	MCHOKA		4														
WRSLL49	THYOLA		4														
WRSLL48	NYUNDO		4			EMBARKMENT	240000										
WRSLL47	BANDA		4														
WRSLL46	MASUMBANKHUNDA		4														
WRSLL45	UKONDE		4			DAM	288000										
WRSLL44	KASEKESE		4														
WRSLL43	NSODZI		4														
WRSLL42	CHAMADENGA		4														
WRSLL41	GUNDAMTENGO		4			RESERVOIR SEDIMANATION											
WRSLL60	CHIPAPHALE		4														
WRSLL59	KASANDULIKA		4														
WRSLL58	CHILU		4														
WRSLL57	CHIPHANGU		4														
WRSLL56	KAMANZI		4														
WRSLL71	MADZIDZI		4														
WRSLL70	KAMADZI		4														
WRSKU05	MBIRA		6														
WRSLL72	KANDIYANI		4														
WRSLL55	MUDI		4			RESERVOIR SEDIMENTATI ON	134000										
WRSLL54	KACHULE		4														
WRS	MPHESANKHULI		4														
WRSLL52	MBABVI		4														
WRSLL51	CHILIKHANDA		4														
WRSLL69	CHIDZALA		4														
WRSLL68	CHIGUMUKIRE		4														
WRSLL73	MTSUKANTHANGA		4														
WRSLL67	CHIKAZINGA		4														
WRSLL66	LINGADZI		4														
WRSLL64	CHISAMBA		4														
WRS/DZ.01	DOMBOLE		3														
WRS/DZ.02	KASANKHA		3														
WRSLL63	KATETE		4														
WRSLL62	CHIPAPHALE		4			DAM	200000										
WRSLL61	LINGADZI		4			PIPE LEAKAGE	55000	BELLING	10000								
WRS/DZ.04	BWANJE		3														
WRS/DZ.03	KASUMBU		3														
WRSLL65	GOLIATI		4			DAM	110000										
WRSLL76	MTEDZA		4														

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)									Rehabilitation						
			Annual avg cost for sediment dredging		Source of cost		Issues of major structure			Issues on Management		Completed major work items					
			Reservoir (MK)	Canal (MK)	Govt; WUA	Other [specify]	Leakage; Deterioration	Sedimentation (Canal/ Reservoir)	Others [Specify]	Man power; Budget; knowledge on operation rule & maintenance	Others [Specify]	1	2	3	4		
WRSLL50	MCHOKA		4														
WRSLL49	THYOLA		4														
WRSLL48	NYUNDO		4					YES		BUDGET							
WRSLL47	BANDA		4														
WRSLL46	MASUMBANKHUNDA		4														
WRSLL45	UKONDE		4							MAN POWER							
WRSLL44	KASEKESE		4														
WRSLL43	NSODZI		4														
WRSLL42	CHAMADENGA		4														
WRSLL41	GUNDAMTENGO		4							MAN POWER							
WRSLL60	CHIPAPHALE		4									REMOVAL OF SEDIMENTS					
WRSLL59	KASANDULIKA		4														
WRSLL58	CHILU		4									CONSTRUCTION OF RESERVOIR					
WRSLL57	CHIPHANGU		4														
WRSLL56	KAMANZI		4														
WRSLL71	MADZIDZI		4														
WRSLL70	KAMADZI		4														
WRSKU05	MBIRA		6														
WRSLL72	KANDIYANI		4														
WRSLL55	MUDI		4														
WRSLL54	KACHULE		4														
WRS	MPHESANKHULI		4														
WRSLL52	MBABVI		4														
WRSLL51	CHILIKHANDA		4														
WRSLL69	CHIDZALA		4														
WRSLL68	CHIGUMUKIRE		4														
WRSLL73	MTSUKANTHANGA		4														
WRSLL67	CHIKAZINGA		4									CONSTRUCTION OF FISH PONDS					
WRSLL66	LINGADZI		4									CONSTRUCTION OF RESERVOIR					
WRSLL64	CHISAMBA		4														
WRS/DZ/01	DOMBOLE		3														
WRS/DZ/02	KASANKHA		3														
WRSLL63	KATETE		4														
WRSLL62	CHIPAPHALE		4							BROKEN SPILLWAY	MAN PWER						
WRSLL61	LINGADZI		4									PIPE MAINTAINANCE					
WRS/DZ/04	BWANJE		3														
WRS/DZ/03	KASUMBU		3														
WRSLL65	GOLIATI		4							SPILLWAY		DAM BODY					
WRSLL76	MTEDEZA		4														

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Reservoir Code	Reservoir Name	River (WRA)	Rehabilitation										Design doc & drawings (available; not available)	If available specify Title of document		
			Year of completion	Cost (MK)	Source of budget	Rehabilitation plan	If Yes Major work items				Budget	Donors				
							1	2	3	4						
WRSLL50	MCHOKA		4												NOT AVAILABLE	
WRSLL49	THYOLA		4												NOT AVAILABLE	
WRSLL48	NYUNDO		4	2012	446400	SELF .GOVT									NOT AVAILABLE	
WRSLL47	BANDA		4				YES	CONSTRUCTION OF DAM							NOT AVAILABLE	
WRSLL46	MASUMBANKHUNDA		4				NO								NOT AVAILABLE	
WRSLL45	UKONDE		4				NO								NOT AVAILABLE	
WRSLL44	KASEKESE		4				NO								NOT AVAILABLE	
WRSLL43	NSODZI		4				YES	EMBARKMENT	SPILLWAY						NOT AVAILABLE	
WRSLL42	CHAMADENGA		4				NO								NOT AVAILABLE	
WRSLL41	GUNDAMTENGO		4				YES	SPILLWAY				IRLAD			NOT AVAILABLE	
WRSLL60	CHIPAPHALE		4	2009		SELF .GOVT	NO								NOT AVAILABLE	
WRSLL59	KASANDULIKA		4				NO								NOT AVAILABLE	
WRSLL58	CHILU		4	2007			NO								NOT AVAILABLE	
WRSLL57	CHIPHANGU		4													
WRSLL56	KAMANZI		4													
WRSLL71	MADZIDZI		4													
WRSLL70	KAMADZI		4													
WRSKU05	MBIRA		6													
WRSLL72	KANDIYANI		4													
WRSLL55	MUDI		4												NOT AVAILABLE	
WRSLL54	KACHULE		4													
WRS	MPHESANKHULI		4													
WRSLL52	MBABVI		4													
WRSLL51	CHILIKHANDA		4													
WRSLL69	CHIDZALA		4													
WRSLL68	CHIGUMUKIRE		4													
WRSLL73	MTSUKANTHANGA		4													
WRSLL67	CHIKAZINGA		4	2012	16000	SELF	YES	CONSTRUCT SHELTER								
WRSLL66	LINGADZI		4	2012	300000	SELF										
WRSLL64	CHISAMBA		4													
WRSDDZ01	DOMBOLE		3				NO								NOT AVAILABLE	
WRSDDZ02	KASANKHA		3													
WRSLL63	KATETE		4													
WRSLL62	CHIPAPHALE		4				NO								NOT AVAILABLE	
WRSLL61	LINGADZI		4	2008	55000	SELF	NO								AVAILABLE	
WRSDDZ04	BWANJE		3													
WRSDDZ03	KASUMBU		3													
WRSLL65	GOLIATI		4	2006	110000		YES	CONSTRUCTION OF SPILLWAY							NOT AVAILABLE	
WRSLL76	MTEDZA		4													

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	If available specify		Date of Survey	Head of Survey	Comments
			Drawings	Office in Charge			
WRSLL50	MCHOKA	4			04/10/2012	NANTCHUKWA	
WRSLL49	THYOLA	4			06/10/2012	NANTCHUKWA	
WRSLL48	NYUNDO	4			05/10/2012	NANTCHUKWA	
WRSLL47	BANDA	4			06/10/2012	NANTCHUKWA	THIS RESERVOIR HAS NO SPILLWAY, WATER IS PUMPED FROM NAMITETE
WRSLL46	MASUMBANKHUNDA	4			08/10/2012	NANTCHUKWA	
WRSLL45	UKONDE	4			09/10/2012	NANTCHUKWA	
WRSLL44	KASEKESE	4			10/10/2012	NANTCHUKWA	
WRSLL43	NSODZI	4			9/10/2012	NANTCHUKWA	THE RESEVOIR IS POORLY UTILISED DUE TO LOW WATER VOLUME AND SILTATION
WRSLL42	CHAMADENGA	4			09/10/2012	NANTCHUKWA	
WRSLL41	GUNDAMTENGO	4			06/10/2012	NANTCHUKWA	
WRSLL60	CHIPAPHALE	4			05/10/2012	NANTCHUKWA	
WRSLL59	KASANDULIKA	4			11/10/2012	NANTCHUKWA	ITS JUST A STREAM IRRIGATION IS DONE USING WATER CANES
WRSLL58	CHILU	4			10/10/2012	NANTCHUKWA	No water due to siltation
WRSLL57	CHIPHANGU	4			08/10/2012	NANTCHUKWA	
WRSLL56	KAMANZI	4			07/10/2012	NANTCHUKWA	ABANDONED DUE TO LEAKAGE OF THE DAM
WRSLL71	MADZIDZI	4			2006/10/2012	NANTCHUKWA	
WRSLL70	KAMADZI	4			07/10/2012	NANTCHUKWA	
WRSKU05	MBIRA	6			02/10/2012	TEMWA	
WRSLL72	KANDIYANI	4			26/10/2012	PEMPHO	
WRSLL55	MUDI	4			05/10/2012	NANTCHUKWA	
WRSLL54	KACHULE	4			12/10/2012	NANTCHUKWA	PRENTY OF WATER ,POOR UTILIZATION OF THE RESEVOIR
WRS	MPHESANKHULI	4			04/10/2012	NANTCHUKWA	
WRSLL52	MBABVI	4			04/10/2012	NANTCHUKWA	
WRSLL51	CHILIKHANDA	4					
WRSLL69	CHIDZALA	4			11/10/2011	NANTCHUKWA	THE RESERVOIR EMERGE FROM QUARRY MINING IT WAS ABANDONED ,PRENTY WATER USED FOR LIVESTOCK
WRSLL68	CHIGUMUKIRE	4			07/10/2012	NANTCHUKWA	ABANDONED AND SPILLWAY WASHED AWAY
WRSLL73	MTSUKANTHANGA	4			07/10/2012	NANTCHUKWA	
WRSLL67	CHIKAZINGA	4			09/10/2012	NANTCHUKWA	NEW PONDS
WRSLL66	LINGADZI	4			03/10/2012	NANTCHUKWA	
WRSLL64	CHISAMBA	4			09/10/2012	NANTCHUKWA	NEW PONDS
WRS/DZ.01	DOMBOLE	3			14/10/2012	NANTCHUKWA	DRY RESERVOIR SPILLWAY BROKEN NO IRRIGATION TAKING PLACE NO MAINTANANCE AND REHABILATION
WRS/DZ.02	KASANKHA	3			14/10/2012	NANTCHUKWA	
WRSLL63	KATETE	4			10/10/2012	NANTCHUKWA	ITS A POND
WRSLL62	CHIPAPHALE	4			10/10/2012	NANTCHUKWA	
WRSLL61	LINGADZI	4			03/10/2012	NANTCHUKWA	
WRS/DZ.04	BWANJE	3			16/10/2012	OMEGA	ITS A RIVER
WRS/DZ.03	KASUMBU	3			14/10/2012	NANTCHUKWA	ITS A POND NOT IN OPERATIONAL
WRSLL65	GOLIATI	4			07/10/2012	NANTCHUKWA	
WRSLL76	MTEDZA	4			11/10/2012	NANTCHUKWA	RESERVOIR IS A RIVER

CHAPTER 7 RESERVOIR SURVEY

Reservoir Code	Reservoir Name	River (WRA)	Location			Dam											Purpose									
			District/City	Village	RWDO/ISD	Accessibility	Identification & Marking on topo. Map	Dam Type		GPS Coordinates at Dam crest				Year of construction	Dam Height	crest length	Crest width	Dam Volume (m ³)	Purpose		Usage					
								Earth; Masonry; Concrete	Others (Specify)	Longitudes	Latitudes	Elevation	Where coordinates are taken						Portable water; Irrig.;Livestock; Fish culture; Hydropower	Other [Specify]	Effectively; Moderate; Poor; Abandoned	Others [specify]				
WRSNU06	GALA		1	NTCHEU	CHAPITA		Easily accessible		Earth			654183	8404222	1502	Left		2007	15	127	5		IRRIGATION			MODERATE	
WRSNU05	KABANGO		1	NTCHEU	KABANGO		Accessible but with few difficulties		Earth			675315	836778	1034	Middle		1950	5	180	3.2		IRRIGATION AND FISHING			ABANDINED	
WRSNU03	KATEDZA		1	NTCHEU	KATEDZA		Easily accessible		Earth			709617	8368381	746	RIGHT		1960	7	170	7.1		IRRIGATION AND FISHING			EFFECTIVELY	
WRSNU02	DZAONE		1	NTCHEU	CHIBWEYA		Very difficult to access		Earth			676744	8350756	1121	RIGHT		2007	3	25	20		IRRIGATION AND FISHING			POOR	
WRSNU01	CHIMVUU		1	NTCHEU	BWESE		Very difficult to access		Earth			6878019	8341415	890	RIGHT		1950	5	73	5		IRRIGATION				
WRSSA01	CHIMOGA			SALIMA	CHIMOGA		Accessible but with few difficulties		Earth			654008	8455565	571	RIGHT		1962	2	120	5		IRRIGATION			ABANDONED	
WRSLL40	PHAZILAMKANGO		4	LILONGWE	MBALANG'MBE		Accessible but with few difficulties		Earth			540605	8433898	1238	Middle		2001	3	21	1.3		IRRIGATION AND FISHING			POOR	
WRSLL31	GOMANI			LILONGWE	DZONZI		Easily accessible		Earth			579610	8431447	1138	RIGHT		1958	7	265	6		IRRIGATION			MODERATE	
WRSLL38	BIWI		4	LILONGWE	BIWI		Easily accessible		Earth			579391	8435845	1119	Middle		2002		205	4.2		FISH CULTURE			ABANDONED	
WRSLL37	MAKOSANA		4	LILONGWE	MAKOSANA		Easily accessible		Earth			557431	8462588	612	Left		1962	8	270	9.6		IRRIGATION			POOR	
WRSLL36	NAVUMI		4	LILONGWE	MKUMBA		Accessible but with few difficulties		Earth			539526	8438644	1193	RIGHT		2004	6	100	6		IRRIGATION AND FISHING			MODERATE	
WRSLL35	CHISAMBA 2		4	LILONGWE	CHISAMBA		Easily accessible		Earth			587225	8426365	1169	Middle		2012	3	17.3	7.3		FISH CULTURE			EFFECTIVELY	
WRSLL34	KAFULATILA		4	LILONGWE	KAFULATILA		Accessible but with few difficulties		Earth			599295	8465192	1093	Middle		2006	2.53	115	7		IRRIGATION AND FISHING			ABANDONED	
WRSLL33	NALJERE		4	LILONGWE	CHIWOLA MAKANDA		Easily accessible		Earth			597838	8459027	978	RIGHT		2010	2.2	30	5		FISH CULTURE			ABANDONED	
WRSLL32	MANDALA		4	LILONGWE	CHISINDO		Easily accessible		Earth			549965	8446322	1187	RIGHT		2002	5	126	5		IRRIGATION			MODERATE	
WRSLL31	CHILOBWE		4	LILONGWE	MWAKUPETA		Accessible but with few difficulties		Earth			538011	8471979	1132	RIGHT			2.5	75	3		IRRIGATION AND FISHING			ABANDONED	
WRSLL30	TIDZIWANE		4	LILONGWE	CHISAMBA		Easily accessible		Earth			587260	8426367	1105	RIGHT		2012	1	17	0.7		FISH CULTURE			EFFECTIVELY	
WRSLL29	CHIKULUMAIWE		4	LILONGWE	MVUWA MISANJO		Easily accessible		Earth			605415	8452305	1114	Middle		2007	1.6	32	0.4		IRRIGATION AND FISHING			MODERATE	
WRSLL28	KANJOKA		4	LILONGWE	KANJOKA		Accessible but with few difficulties		Earth			574621	8478253	1181	Middle		2012	4	9	6		IRRIGATION			MODERATE	
WRSLL27	NDALAMA		4	LILONGWE	NDALAMA		Easily accessible		Earth			542955	8482776	1126	RIGHT		2000	2	102	267		IRRIGATION			ABANDONED	
WRSLL26	KALUMBO		4	LILONGWE	KHWAMBA		Easily accessible		Earth			602962	8438135	1169	Middle		1962	1.1	150	6		IRRIGATION			EFFECTIVELY	
WRSLL25	MATAKA		4	LILONGWE	MATAKA		Accessible but with few difficulties		Earth			591064	8412194	1206	Middle		2005	4.2	95	4		IRRIGATION AND FISHING			MODERATE	
WRSLL24	NSANDULA		4	LILONGWE	NSANDULA		Easily accessible		Earth			595871	8440776	1098	Middle		1963	3	140	6		IRRIGATION AND FISHING			MODERATE	
WRSLL23	KAFISI		4	LILONGWE	CHAPULUKA		Accessible but with few difficulties		Earth			565481	8448790	1119	Middle			1	8	8		IRRIGATION			ABANDONED	
WRSLL22	KAWOCHE		4	LILONGWE	KAWOCHE		Easily accessible		Earth			575004	8443571	1094	Middle		1996	2				IRRIGATION .Livestock			POOR	
WRSLL21	MUWOWA		4	LILONGWE	CHALA		Easily accessible		Earth			569319	8442922	1122	Middle		1996	3	250	4		IRRIGATION			MODERATE	
WRSLL20	NSUMBA		4	LILONGWE	NASALA		Accessible but with few difficulties		Earth			571484	8445774	1094	Middle		2001	2	238	3.6		IRRIGATION			ABANDONED	
WRSLL19	MSUNGA		4	LILONGWE	MSUNGA		Easily accessible		Earth			564343	8447398	1113	Middle		2006	2.5	115	3		IRRIGATION			MODERATE	
WRSLL18	BINETH		4	LILONGWE	BILIMONI		Easily accessible		Earth			582591	8427097	1178	RIGHT		2004	5				IRRIGATION .Livestock			MODERATE	
WRSLL17	MATAMBO		4	LILONGWE	MATAMBO		Easily accessible		Earth			589192	8428026	1146	Middle		2011	1.5	20	10		FISH CULTURE			EFFECTIVELY	
WRSLL16	MLALE		4	LILONGWE	MLALE		Easily accessible		Earth			582591	8427091	1178	Middle		2006	2	485	7.5		FISH CULTURE			POOR	
WRSLL15	MPHANGWE		4	LILONGWE	CHIMPHANGU		Accessible but with few difficulties		Earth			562921	8441270	1100	RIGHT		2004	6	150	450		IRRIGATION			MODERATE	
WRSLL14	KAKOMA		4	LILONGWE	MTIKA		Easily accessible		Earth			543881	8447799	1156	Middle		2004	4	156	5		IRRIGATION .Livestock			POOR	
WRSLL13	MWEZIWAUMA		4	LILONGWE			Easily accessible		Earth			535454	8473101	1114	Left		2003	1.5	315	3.8		IRRIGATION			ABANDONED	
WRSLL12	MUDI		4	LILONGWE	KASONGOLA		Easily accessible		Earth			537453	8478676	1078	Middle			3				IRRIGATION			MODERATE	
WRSLL11	BANDA		4	LILONGWE	DZAMA		Very difficult to access		Earth			530304	8469024	1072	RIGHT		2004	3	115	5		IRRIGATION .Livestock			POOR	
WRSLL10	MSAMPHA		4	LILONGWE	MSAMPHA2		Easily accessible		Earth			587413	8439015	1076	RIGHT		1963	2	238	4.5		IRRIGATION AND FISHING			MODERATE	
WRSLL09	NYEMBA		4	LILONGWE	NYEMBA		Easily accessible		Earth			593716	8442178	1065	Left		1961	5	200	3.4		IRRIGATION			MODERATE	
WRSLL08	MALIRO AFUNDANJI		4	LILONGWE	MALIRO AFUNDANJI		Easily accessible		Earth			558784	8454054	1157	Left		2000	1	16	16		IRRIGATION			MODERATE	
WRSLL07	MAZINGA		4	LILONGWE	MAZINGA		Easily accessible		Earth			581366	84355664	1142	RIGHT		1964	2	130	4		IRRIGATION			ABANDONED	
WRSLL06	KAKOMA		4	LILONGWE	MALILI		Easily accessible		Earth			558557	8443321	1131	RIGHT		2006	7	160	4.5		IRRIGATION			MODERATE	
WRSLL05	NAMSONGOLE		4	LILONGWE	MDENZA		Easily accessible		Earth			618325	8441918	1152	Left		2004	5	98	4.2		FISH CULTURE			ABANDONED	
WRSLL04	DZUWA		4	LILONGWE	KAWAWA		Easily accessible		Earth			541540	8457184		Middle		2006	4	180	2.4					ABANDONED	
WRSLL03	CHIKONGOLO		4	LILONGWE	KASALIKA		Easily accessible		Earth			547960	8493480	1058	Middle		2006	4	132	5		IRRIGATION .Livestock			MODERATE	
WRSLL02	LIWUNGU		4	LILONGWE	MASUMBATHUB WI		Accessible but with few difficulties		Earth			565088	8442147	1094	RIGHT		2003	3	115	4.2		IRRIGATION			MODERATE	
WRSLL01	CHILEMBWE		4	LILONGWE	CHILEMBWE		Easily accessible		Earth			601875	8444091	1112	Middle		2008	10	75	6.2		IRRIGATION .Livestock			MODERATE	

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)															Spillway							
			Rotation during dry season per week	Normal Water Level (m)	Water Level (m)	Length of water in reservoir (m)	Width of water reservoir (m)	Approx. Reservoir area [0.5*L*B] (m ²)	The difference between Normal water level and Lowest Water level (approx. m)	Sediment in the Reservoir	Catchment Area (km ²)	Annual inflow (m ³)	Storage Capacity (m ³)	Effective storage capacity (m ³)	Dead Capacity (m ³)	Water utilisation capacity (m ³)	Flood control Capacity (m ³)	Type	Crest elevation (m)	Temporary crest raising	If 'Yes'		Length (m)	Design discharge (m ³ /s)
																					Height of crest (m)	Material of raising		
WRS/NU/06	GALA		1		12	4	130	91	5915	8		30					MASONARY						6	
WRS/NU/05	KABANGO		1		3	2	120	105	6300	1		40					MASONARY	1.00					20	
WRS/NU/03	KATEDZA		1	TWICE	4	2	120	100	6000	2		3												
WRS/NU/02	DZAONE		1		2	0.5	20	20	200					0.5			PIPI PVC						1	
WRS/NU/01	CHIMVUU		1						0															
WRS/SA/01	CHIMOGA				2		100	120	6000	2	SEVERE	30					MASONARY		NO				16	
WRS/LL/40	PHAZILAMKANGO		4	ONCE	1.3		38	7	133	1.5	SEVERE	40					MASONARY	0.40	NO				64	
WRS/LL/31	GOMANI		4	TWICE	5	4	200	265	26500	1	SEVERE	60					MASONARY	0.80	NO				30	
WRS/LL/38	BIWI		4		2		100	205	10250	2	MODERATE	20					MASONARY	4.00	NO				4	
WRS/LL/37	MAKOSANA		4	TWICE	7	5	500	1000	250000	2		60					MASONARY	0.80	NO				20	
WRS/LL/36	NAVUMI		4	MORE	5	2	150	100	7500	3	MODERATE	15	1000000		20000	980000	MASONARY		NO				15	
WRS/LL/35	CHISAMBA 2		4		2.5	2.5	7.3	17.3	63.145	0.5	less													
WRS/LL/34	KAFULATILA		4				100	115	5750															
WRS/LL/33	NALJERE		4		0.5				225															
WRS/LL/32	MANDALA		4	MORE	6	2.5	80	70	4.5		LESS	5					MASONARY	0.30	N				11	
WRS/LL/31	CHILOBWE		4				70	50	1750		SEVERE													
WRS/LL/30	TIDZIWANE		4			0	17	7	59.5															
WRS/LL/29	CHIKULUMAIWE		4		1.6	0.8	16	15	120	0.8		2					MASONARY	1.00		0.5			9.8	
WRS/LL/28	KANJOKA		4		2		9	6	27	2														
WRS/LL/27	NDALAMA		4				100	102	5100			2					CONCRETE		NO					
WRS/LL/26	KALUMBO		4	ONCE	2.2	1	300	150	22500	1.2		3												
WRS/LL/25	MATAKA		4		8	2	75	65	2437.5	6		5					MASONARY	1.00	N				2.8	
WRS/LL/24	NSANDULA		4	MORE	2	1.5	100	14	700	0.5		8					CONCRETE						0.5	
WRS/LL/23	KAFISI		4		0.5				0	0.5														
WRS/LL/22	KAWOCHE		4	Twice	1.5	0.5	20	10	100	1														
WRS/LL/21	MUWOWA		4	once	2	1	50	180	4500	1		50					CONCRETE	0.60					0.06	
WRS/LL/20	NSUMBA		4	MORE			200	238	23800		MODERATE						MASONARY						1.2	
WRS/LL/19	MSUNGA		4	MORE	2	1	120	104	6240	1		150					EARTH				SANDBAG			
WRS/LL/18	BINETH		4	MORE	4	3.5	70	60	2100	0.5							CONCRETE	1.00					4	
WRS/LL/17	MATAMBO		4		1	1.5	20	10	100	0.5							PIPE	0.30	NO				6	
WRS/LL/16	MLALE		4		1	0.5	100	200	10000			120					MASONARY	1.00	NO				2	
WRS/LL/15	MPHANGWE		4	MORE	5	4	200	100	10000	1		30					MASONARY	0.80	NO				7	
WRS/LL/14	KAKOMA		4	MORE	10	8	75	146	5475	2	MODERATE	8					MASONARY	5.00	YES		2	SANDBAG		
WRS/LL/13	MWEZIWAUMA		4		1		250	271	33875	1	SEVERE	2												
WRS/LL/12	MUDI		4	once	3.2	2	7			1.2														
WRS/LL/11	BANDA		4		2	1	150	94	7050	1	MODERATE	20	800000	500000	0.5	300000								
WRS/LL/10	MSAMPHA		4	MORE	1.5	1	170	22	1870	0.5	MODERATE	2					CONCRETE						5	
WRS/LL/09	NYEMBA		4		3	1	150	160	12000	2		120												
WRS/LL/08	MALIRO AFUNDANJI		4	THRICE	0.7	0.3	16	13	104	0.4	less						PIPE PVC		NO				5.2	
WRS/LL/07	MAZINGA		4						0															
WRS/LL/06	KAKOMA		4	MORE	5	1.7	100	145	7250	3.3	MODERATE	200					EARTH	0.60					13	
WRS/LL/05	NAMSONGOLE		4		1.5	0.6	83	86	3569	0.8	MODERATE	12					MASONARY	0.50	NO				6.3	
WRS/LL/04	DZUWA		4		3	1	100	167	8350	2		30												
WRS/LL/03	CHIKONGOLO		4	THRICE	3	1	45	123	2767.5	2	MODERATE	60					MASONARY	160.00					60	
WRS/LL/02	LIWUNGU		4	TWICE	2	1	500	100	25000	1		10					MASONARY	0.50	NO				12	
WRS/LL/01	CHILEMBWE		4		8	6	150	35	2625	2	MODERATE	8					MASONARY	0.40	NO				16	

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	Spillway					Intake structure		Water Rights						Portable water		
			Probable max flood (m ³ /s)	Annual avg number of overflow from spillway	Previous Max Discharge (m ³ /s)	Year of occurrence	Return period	Bottom outlet; Inclined outlet; Intake tower	Other [specify]		Type	Length (m)	Discharge m ³ /s	Size of open canal	Size of piped canal	Intake Water m ³ /day	Treatment plant	Treatment method [If any specify]
											Open (Earth); Open(masonry); Pipe (steel); Pipe (PVC)							
WRSNU.06	GALA		1							UNREGISTERED	MASONARY	1000						
WRSNU.05	KABANGO		1				2012	APRIL										
WRSNU.03	KATEDZA		1							UNREGISTERED								
WRSNU.02	DZAONE		1				2012											
WRSNU.01	CHIMVUU		1															
WRSSA.01	CHIMOGA						2012											
WRSLL.40	PHAZILAMKANGO		4															
WRSLL.31	GOMANI																	
WRSLL.38	BIWI		4															
WRSLL.37	MAKOSANA		4															
WRSLL.36	NAVUMI		4			50000		MAY			MASONARY	1000			400			
WRSLL.35	CHISAMBA 2		4															
WRSLL.34	KAFULATILA		4															
WRSLL.33	NALJERE		4								EARTH	10						
WRSLL.32	MANDALA		4															
WRSLL.31	CHLOBWE		4															
WRSLL.30	TIDZIWANE		4															
WRSLL.29	CHIKULUMAIWE		4															
WRSLL.28	KANJOKA		4															
WRSLL.27	NDALAMA		4															
WRSLL.26	KALUMBO		4															
WRSLL.25	MATAKA		4							UNREGISTERED								
WRSLL.24	NSANDULA		4															
WRSLL.23	KAFISI		4															
WRSLL.22	KAWOCHE		4															
WRSLL.21	MUWOWA		4							UNREGISTERED								
WRSLL.20	NSUMBA		4															
WRSLL.19	MSUNGA		4															
WRSLL.18	BINETH		4							UNREGISTERED								
WRSLL.17	MATAMBO		4															
WRSLL.16	MLALE		4															
WRSLL.15	MPHANGWE		4							UNREGISTERED	EARTH	20						
WRSLL.14	KAKOMA		4							UNREGISTERED								
WRSLL.13	MWEZIWAUMA		4															
WRSLL.12	MUDI		4															
WRSLL.11	BANDA		4								EARTH	100						
WRSLL.10	MSAMPHA		4								EARTH	300						
WRSLL.09	NYEMBA		4															
WRSLL.08	MALIRO AFUNDANJI		4															
WRSLL.07	MAZINGA		4															
WRSLL.06	KAKOMA		4							UNREGISTERED	PIPE STEEL							
WRSLL.05	NAMSONGOLE		4							UNREGISTERED								
WRSLL.04	DZUWA		4															
WRSLL.03	CHIKONGOLO		4							UNREGISTERED								
WRSLL.02	LIWUNGU		4								EARTH	3000						
WRSLL.01	CHILEMBWE		4							UNREGISTERED	MASONARY	200						

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	Portable water				Irrigation																				
			Service area	Number of taps on houses supplied		Water tariff (MK/month)		Intake term & water Intake				Irrigation area		Breakdown by irrigated crops													
				Tap	Houses	Tap	House	Avg whole season Discharge (m ³ /s)	Dry season only usage (month)		Discharge		name of place	ha	crop	Cultivation time & area											
									From	To	(m ³ /s)	Is the water used fulltime or rotation (days/week interval)				From	To	(ha)	crop	(ha)	From	to	crop	(ha)	From	to	
WRSNU06	GALA											GALA	0.48	MAIZE	JULY	NOV		0.1	BEANS	1.5	JULY	NOV		0.5			
WRSNU05	KABANGO																										
WRSNU03	KATEDZA											KATEDZA	0.32	MAIZE	JUNE	OCT		0.8	VEGETABLES	0.2	APRIL	MAY		0.42	SEPT	NOV	
WRSNU02	DZAONE											DZAONE	0.5	MAIZE	MAY	AUG		0.4	TOMATO	0.4	APRIL	SEPT		0.2	APRIL	SEPT	
WRSNU01	CHIMVUU																										
WRSSA01	CHIMOGA																										
WRSLL40	PHAZILAMKANGO																										
WRSLL31	GOMANI											DZONZI	7	TOMATO	NOV	JAN		7	MAIZE	7	AUG	NOV					
WRSLL38	BIWI											BADWA	8	MAIZE	JUNE	OCT		4	VEG	4	JUNE	NOV					
WRSLL37	MAKOSANA											MAKOSANA	0.5	MAIZE	NOV	MAR		0.5									
WRSLL36	NAVUMI											CHAWATHA	18	MAIZE	JUNE	NOV		10	TOMATO	5	JULY	OCT		BEANS	AUG	NOV	
WRSLL35	CHISAMBA 2																										
WRSLL34	KAFULATILA																										
WRSLL33	NALJERE																										
WRSLL32	MANDALA											MANDALA	10	MAIZE	FEB	JUNE		6	VEGETABLES	4							
WRSLL31	CHILOBWE																										
WRSLL30	TIDZIWANE																										
WRSLL29	CHIKULUMAIWE											CHIKULUMAIWE	3	MAIZE	APRIL	SEPT		3									
WRSLL28	KANJOKA											KANJOKA	10	MAIZE	SEPT	NOV		6	TOMATO	4	JULY	TOMATO		1	JULY	OCT	
WRSLL27	NDALAMA																										
WRSLL26	KALUMBO											mwanangombe	10	MAIZE	APRIL	SEPT		5	TOMATO	2	APRIL	OCTOBER		ONION	APRIL	SEPT	
WRSLL25	MATAKA																										
WRSLL24	NSANDULA																										
WRSLL23	KAFISI																										
WRSLL22	KAWOCHE											KAWOCHE	3	MAIZE													
WRSLL21	MUWOWA											MUWOWA	8	TOMATO	MAY	JULY		3	MAIZE	5	MAY	JULY		CASSAVA			
WRSLL20	NSUMBA																										
WRSLL19	MSUNGA											MSUNGA	85	TOBACCO				85									
WRSLL18	BINETH											MITUNDU	5	MAIZE				3	SOYA					2			
WRSLL17	MATAMBO																										
WRSLL16	MLALE																										
WRSLL15	MPHANGWE											MPHANGWE	6	MAIZE	JULY	NOV		0.5	TOMATO	4	JULY	OCT		VEGETABLES	1.5	SEPT	NOV
WRSLL14	KAKOMA											KAKOMA	27	MAIZE	MARCH	DEC		10	BEANS	17	SEPT	NOV					
WRSLL13	MWEZIWAUMA																										
WRSLL12	MUDI																										
WRSLL11	BANDA											BANDA	8	MAIZE	SEPT	FEB		6	VEGETABLES	2	MAY	OCT					
WRSLL10	MSAMPHA											KAMBWE	20	VEG	MAY	NOV			TOMATO		JUNE	OCT		MAIZE		OCT	JAN
WRSLL09	NYEMBA											NYEMBA	2	MAIZE	MAY	NOV		1	TOMATO	1	APRIL	OCT					
WRSLL08	MALIRO AFUNDANJI											KADZIYO	0.4	MAIZE	JULY	OCT		0.1	TOMATO	0.1	APRIL	OCT		VEGETABLES	0.1	APRIL	NOV
WRSLL07	MAZINGA																										
WRSLL06	KAKOMA											KAKOMA	90	TOBACCO	AUG	FEB		90									
WRSLL05	NAMSONGOLE																										
WRSLL04	DZUWA																										
WRSLL03	CHIKONGOLO																										
WRSLL02	LIWUNGU											LIWUNGU	7	MAIZE	MAY	NOV		6	TOMATO	1	APRIL	OCT					
WRSLL01	CHILEMBWE											KADZAELE	5	TOMATO	APRIL	NOV		3	MAIZE	2	MAY	NOV					

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	Irrigation																							
			Breakdown by irrigated crops															Number of Farmers with Irrig. Land	Market Name for selling crops (place)	Avg annual income of farmers with irrig. Land (MK/farmer)	Number of farmers with non-irrig. Land	Non-irrig. Crops & cultivation area				
			Cultivation time & area																			Crop	Area (ha)	Crop	Area (ha)	
			crop	(ha)	From	to	crop	(ha)	From	TO	CROP	(ha)	From	TO	CROP	FROM	TO	(ha)								
WRSNU.06	GALA		1																42	BEMBEKE	7000	15	MAIZE		SOYA	
WRSNU.05	KABANGO		1																							
WRSNU.03	KATEDZA		1																16	BANDA	20000	400	TOBACCO	400	G/NUTS	200
WRSNU.02	DZAONE		1	POTATO	0.2	APRIL	AUGUST												5	SELLA	5000					
WRSNU.01	CHIMVUU		1																							
WRS/SA.01	CHIMOGA																									
WRSLL.40	PHAZILAMKANGO		4																							
WRSLL.31	GOMANI																		10	VENDORS	184000	5	MAIZE		G/NUTS	
WRSLL.38	BIWI		4																20	LL CITY	40000	150	MAIZE	40	G/NUTS	20
WRSLL.37	MAKOSANA		4																							
WRSLL.36	NAVUMI		4	POTATO		3	JUNE	OCT	MUSTARD		1	SEPT	OCT						175	CHAWATHA	100000	300	MAIZE	60	TOBACCO	50
WRSLL.35	CHISAMBA 2		4																							
WRSLL.34	KAFULATILA		4																							
WRSLL.33	NALJERE		4																							
WRSLL.32	MANDALA		4																50	NAMITETE	90000	300	MAIZE	20	TOMATO	15
WRSLL.31	CHILOBWE		4																							
WRSLL.30	TIDZIWANE		4																							
WRSLL.29	CHIKULUMAIWE		4																40	VENDORS	200000	236	MAIZE	118		
WRSLL.28	KANJOKA		4																14	CHIKHUTU	20000	75	MAIZE	40	POTATO	5
WRSLL.27	NDALAMA		4																							
WRSLL.26	KALUMBO		4																50	VENDORS	60000	150	MAIZE	150	G/NUTS	1
WRSLL.25	MATAKA		4	TOBACCO		1	SEPT	DEC											1	KANENGO	200000	60	TOBACCO	2	TOMATO	1.5
WRSLL.24	NSANDULA		4																26	VENDORS	100000	32	MAIZE		TOMATO	
WRSLL.23	KAFISI		4																							
WRSLL.22	KAWOCHE		4																1	CHIGWIRIZANO	300000					
WRSLL.21	MUWOWA		4																28	CHIGWIRIZANO	200000	110	MAIZE	30	TOBACCO	15
WRSLL.20	NSUMBA		4																							
WRSLL.19	MSUNGA		4																							
WRSLL.18	BINETH		4																							
WRSLL.17	MATAMBO		4																							
WRSLL.16	MLALE		4																							
WRSLL.15	MPHANGWE		4																200	CHIGWIRIZANO	20000	50	MAIZE	100	TOBACCO	50
WRSLL.14	KAKOMA		4																216	VENDING		15	MAIZE	18	G/NUTS	7
WRSLL.13	MWEZIWAUMA		4																							
WRSLL.12	MUDI		4																							
WRSLL.11	BANDA		4																250	MKOKO	5000		MAIZE	350	G/NUTS	100
WRSLL.10	MSAMPHA		4																96		60000	130	MAIZE		SOYA	
WRSLL.09	NYEMBA		4																54	NANJIRI	50000	170	MAIZE		CASAVA	
WRSLL.08	MALIRO AFUNDANJI		4																62	MTANDIRE	100000		MAIZE	100	G/NUTS	15
WRSLL.07	MAZINGA		4																							
WRSLL.06	KAKOMA		4																							
WRSLL.05	NAMSONGOLE		4																							
WRSLL.04	DZUWA		4																							
WRSLL.03	CHIKONGOLO		4																							
WRSLL.02	LIWUNGU		4																50	CHIGWIRIZANO	40000	200	MAIZE	15		
WRSLL.01	CHILEMBWE		4																137	LOCALLY	40000		MAIZE	50	SOYA	15

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	Irrigation					Livestock breeding water										Fish culture								
			Non-irrig. Crops & cultivation area				Avg income of non-irrig. Land farmers (MK/farmer)	Intake water (m ³ /day)	Kind & Number of Livestock						Number of farmers using breeding water	Market for selling cultured fish (place)	Annual income of breeding farmers (MK/farmer)	Intake water (m ³ /day)	Kind & Number of cultured fish							
			Crop	Area (ha)	Crop	Area (ha)			Kind (Name)	Number	Kind (Name)	Number	Kind (Name)	Number						Kind (Name)	Number					
WRS/NU/06	GALA		1																							
WRS/NU/05	KABANGO		1																							
WRS/NU/03	KATEDZA		1	COTTON	25			150000	4000	CATTLE	100								100	VENDORS	80000				CHAMBO	
WRS/NU/02	DZAONE		1																10	SELLA	9800					
WRS/NU/01	CHIMVUU		1																							
WRS/SA/01	CHIMOGA																									
WRS/LL/40	PHAZILAMKANGO		4																							
WRS/LL/31	GOMANI							28800																		
WRS/LL/38	BIWI		4	SOYA	10	TOBACCO	5	30000	400	cattle	20								1							
WRS/LL/37	MAKOSANA		4																							
WRS/LL/36	NAVUMI		4	SOYA	30	GNUTS	50	100000	5000	CATTLE	400	GOATS	100													
WRS/LL/35	CHISAMBA 2		4																							
WRS/LL/34	KAFULATILA		4																							
WRS/LL/33	NALJERE		4																							
WRS/LL/32	MANDALA		4	CABBAGE	5					CATTLE	80								7	NSUNDWE						
WRS/LL/31	CHILOBWE		4																							
WRS/LL/30	TIDZIWANE		4																							
WRS/LL/29	CHIKULUMAIWE		4					20000																		
WRS/LL/28	KANJOKA		4	IPOTATO	5																					
WRS/LL/27	NDALAMA		4																							
WRS/LL/26	KALUMBO		4	SOYA	2			100000		CATTLE	1000								10	VENDORS					MAKUMBA	
WRS/LL/25	MATAKA		4	MAIZE	1			45000		CATTLE	10								4	VENDORS	800000				CHAMBO	
WRS/LL/24	NSANDULA		4	G/NUTS				90000		CATTLE	20															
WRS/LL/23	KAFISI		4																							
WRS/LL/22	KAWOCHE		4							PIGS	4	GOATS	3						1	LOCALLY	120000					
WRS/LL/21	MUWOWA		4	G/NUTS	20	SOYA	10	25000																		
WRS/LL/20	NSUMBA		4																							
WRS/LL/19	MSUNGA		4																							
WRS/LL/18	BINETH		4							SHEEP	400	GOATS	200													
WRS/LL/17	MATAMBO		4																							
WRS/LL/16	MLALE		4																							
WRS/LL/15	MPHANGWE		4							CATTLE	20								7	VENDORS	100000					
WRS/LL/14	KAKOMA		4	TOBAAACO	10			10000		CATTLE	1000	GOATS	100	SHEEP	100				216	VENDORS	120000					
WRS/LL/13	MWEZIWAUMA		4																							
WRS/LL/12	MUDI		4																							
WRS/LL/11	BANDA		4	SOYA	50				100	CATTLE	500									LILONGWE	130000					
WRS/LL/10	MSAMPHA		4	TOBACCO				40000		DONKEY		CATTLE							20	VENDORS						
WRS/LL/09	NYEMBA		4	GNUTS				50000																		
WRS/LL/08	MALIRO AFUNDANJI		4	SOYA	15	TOBACCO	10	60000																		
WRS/LL/07	MAZINGA		4																							
WRS/LL/06	KAKOMA		4																							
WRS/LL/05	NAMSONGOLE		4																							
WRS/LL/04	DZUWA		4																							
WRS/LL/03	CHIKONGOLO		4							CATTLE	2000	SHEEP	50	GOATS	3000				70	MPONELA	60000					
WRS/LL/02	LIWUNGU		4					100000																		
WRS/LL/01	CHILEMBWE		4	G/NUTS	20	TOBACCO	10		2000	CATTLE	200	DONKEY	20						137	LOCALLY	200				CHAMBO	

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Reservoir Code	Reservoir Name	River (WRA)	Fish culture										WUA Organised; No	Annual fee (MK/year)	Water Right payment	If yes				
			Kind & Number of cultured fish						Number of breeding farmers	Market for selling cultured fish	Average annual income of breeding farmers (MK/year)	Amount (MK/Year)				Dam body (embarkment); Abutment	Spillway; Bottom outlet	Inclined outlet; Intake tower	Gate; Canal; Access road	
			Number	Kind (Name)	Number	Kind (Name)	Number	Kind (Name)												
WRS/NU/06	GALA		1										ORGANISED	3000						
WRS/NU/05	KABANGO		1																	
WRS/NU/03	KATEDZA		1	MLAMBA					400	LOCALLY	40000		ORGANISED	500	NO					
WRS/NU/02	DZAONE		1										NO							
WRS/NU/01	CHIMVUU		1																	
WRS/SA/01	CHIMOGA																			
WRS/LL/40	PHAZILAMKANGO		4																	
WRS/LL/31	GOMANI																			
WRS/LL/38	BIWI		4																	
WRS/LL/37	MAKOSANA		4																	
WRS/LL/36	NAVUMI		4										ORGANISED							
WRS/LL/35	CHISAMBA 2		4																	
WRS/LL/34	KAPULATILA		4																	
WRS/LL/33	NALJERE		4																	
WRS/LL/32	MANDALA		4																	
WRS/LL/31	CHILOBWE		4																	
WRS/LL/30	TIDZIWANE		4																	
WRS/LL/29	CHIKULUMAIWE		4										NO				YES			
WRS/LL/28	KANJOKA		4										ORGANISED							
WRS/LL/27	NDALAMA		4																	
WRS/LL/26	KALUMBO		4	3000					20	KALUBU	39000		NO							
WRS/LL/25	MATAKA		4	SMALL FISH		MILAMBA			9				NO							
WRS/LL/24	NSANDULA		4										NO							
WRS/LL/23	KAFISI		4										NO							
WRS/LL/22	KAWOCHE		4										NO							
WRS/LL/21	MUWOWA		4																	
WRS/LL/20	NSUMBA		4																	
WRS/LL/19	MSUNGA		4																	
WRS/LL/18	BINETH		4																	
WRS/LL/17	MATAMBO		4						1		7500									
WRS/LL/16	MLALE		4	CHAMBO		KAMBUZI		FISHCAT	50	LOCALLY	30000									
WRS/LL/15	MPHANGWE		4										NO							
WRS/LL/14	KAKOMA		4																	
WRS/LL/13	MWEZIWAUMA		4																	
WRS/LL/12	MUDI		4																	
WRS/LL/11	BANDA		4																	
WRS/LL/10	MSAMPHA		4										ORGANISED		NO					
WRS/LL/09	NYEMBA		4										NO							
WRS/LL/08	MALIRO AFUNDANJI		4										NO							
WRS/LL/07	MAZINGA		4																	
WRS/LL/06	KAKOMA		4																	
WRS/LL/05	NAMSONGOLE		4			BABA		480	18	LOCALLY	2600		ORGANISED	500	NO			YES		
WRS/LL/04	DZUWA		4																	
WRS/LL/03	CHIKONGOLO		4										NO							
WRS/LL/02	LIWUNGU		4										NO							
WRS/LL/01	CHILEMBWE		4	2000					41	VENDORS	75000		ORGANISED		NO					

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	Major items of maintenance & cost														
			Other [specify]	Item	Cost (MK)	Item	Cost (MK)	Item	Cost (MK)	Item	Cost (MK)	Item	Cost (MK)	Item	Cost (MK)		
			WRS/NU/06	GALA	1												
WRS/NU/05	KABANGO	1	SEDIMENT DREDGING														
WRS/NU/03	KATEDZA	1															
WRS/NU/02	DZAONE	1	REMOVAL OF SEDIMENTS														
WRS/NU/01	CHIMVUU	1															
WRS/SA/01	CHIMOGA		SEDIMENTS DREDGING														
WRS/LL/40	PHAZILAMKANGO	4	REMOVAL OF SEDIMENTS														
WRS/LL/31	GOMANI																
WRS/LL/38	BIWI	4															
WRS/LL/37	MAKOSANA	4															
WRS/LL/36	NAVUMI	4	REMOVAL SEDIMENT														
WRS/LL/35	CHISAMBA 2	4															
WRS/LL/34	KAFULATILA	4															
WRS/LL/33	NALJERE	4															
WRS/LL/32	MANDALA	4	SPILLWAY		100000												
WRS/LL/31	CHILOBWE	4															
WRS/LL/30	TIDZIWANE	4															
WRS/LL/29	CHIKULUMAIWE	4				EMBARKMENT											
WRS/LL/28	KANJOKA	4															
WRS/LL/27	NDALAMA	4															
WRS/LL/26	KALUMBO	4				REMOVING SEDIMENTS											
WRS/LL/25	MATAKA	4	CONSTRUCTION OF RESERVOIR														
WRS/LL/24	NSANDULA	4	REMOVAL SEDIMENT														
WRS/LL/23	KAFISI	4	REMOVAL SEDIMENT														
WRS/LL/22	KAWOCHE	4				DAM		4000									
WRS/LL/21	MUWOWA	4															
WRS/LL/20	NSUMBA	4															
WRS/LL/19	MSUNGA	4															
WRS/LL/18	BINETH	4															
WRS/LL/17	MATAMBO	4															
WRS/LL/16	MLALE	4															
WRS/LL/15	MPHANGWE	4	EMBARKMENT			CANAL											
WRS/LL/14	KAKOMA	4	CONSTRUCTION OF BRIDGE														
WRS/LL/13	MWEZIWAUMA	4															
WRS/LL/12	MUDI	4															
WRS/LL/11	BANDA	4															
WRS/LL/10	MSAMPHA	4															
WRS/LL/09	NYEMBA	4															
WRS/LL/08	MALIRO AFUNDANJI	4															
WRS/LL/07	MAZINGA	4															
WRS/LL/06	KAKOMA	4															
WRS/LL/05	NAMSONGOLE	4															
WRS/LL/04	DZUWA	4															
WRS/LL/03	CHIKONGOLO	4															
WRS/LL/02	LIWUNGU	4	SPILLWAY		50000												
WRS/LL/01	CHILEMBWE	4															

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)									Rehabilitation						
			Annual avg cost for sediment dredging		Source of cost		Issues of major structure			Issues on Management		Completed major work items					
			Reservoir (MK)	Canal (MK)	Govt; WUA	Other [specify]	Leakage; Deterioration	Sedimentation (Canal/ Reservoir)	Others [Specify]	Man power; Budget; knowledge on operation rule & maintenance	Others [Specify]	1	2	3	4		
WRS/NU/06	GALA		1														
WRS/NU/05	KABANGO		1										SEDIMENT DREDGING				
WRS/NU/03	KATEDZA		1										DAM EMBARKMENT	CONSTRUCTION OF RESERVOIR			
WRS/NU/02	DZAONE		1														
WRS/NU/01	CHIMVUU		1														
WRS/SA/01	CHIMOGA												SEDIMENT DREDGING	DAM EMBARKMENT			
WRS/LL/40	PHAZILAMKANGO		4					Canal sedimentation	Reservoir sedimentation								
WRS/LL/31	GOMANI																
WRS/LL/38	BIWI		4										SPILLWAY				
WRS/LL/37	MAKOSANA		4														
WRS/LL/36	NAVUMI		4	72000		MP							REMOVAL OF SEDIMENTS				
WRS/LL/35	CHISAMBA 2		4														
WRS/LL/34	KAFULATILA		4														
WRS/LL/33	NALJERE		4														
WRS/LL/32	MANDALA		4										CONSTRUCTION OF EMBARKMENT				
WRS/LL/31	CHILOBWE		4														
WRS/LL/30	TIDZIWANE		4														
WRS/LL/29	CHIKULUMAIWE		4											DAM BODY	CONSTRUCTION OF RESEVOIR		
WRS/LL/28	KANJOKA		4										CONSTRUCTION OF PON				
WRS/LL/27	NDALAMA		4														
WRS/LL/26	KALUMBO		4														
WRS/LL/25	MATAKA		4														
WRS/LL/24	NSANDULA		4										REMOVAL OF GRASS	MAINTAINANCE OF CREST			
WRS/LL/23	KAFISI		4														
WRS/LL/22	KAWOCHE		4														
WRS/LL/21	MUWOWA		4														
WRS/LL/20	NSUMBA		4														
WRS/LL/19	MSUNGA		4														
WRS/LL/18	BINETH		4														
WRS/LL/17	MATAMBO		4														
WRS/LL/16	MLALE		4														
WRS/LL/15	MPHANGWE		4					LEAKAGE					REBULDING EMBARKMENT	BRIDGE CONSTRUCTION			
WRS/LL/14	KAKOMA		4					SPILLWAY									
WRS/LL/13	MWEZIWAUMA		4														
WRS/LL/12	MUDI		4														
WRS/LL/11	BANDA		4														
WRS/LL/10	MSAMPHA		4										REMOVAL OF SEDIMENTS				
WRS/LL/09	NYEMBA		4														
WRS/LL/08	MALIRO AFUNDANJI		4														
WRS/LL/07	MAZINGA		4														
WRS/LL/06	KAKOMA		4														
WRS/LL/05	NAMSONGOLE		4														
WRS/LL/04	DZUWA		4														
WRS/LL/03	CHIKONGOLO		4														
WRS/LL/02	LIWUNGU		4	45000													
WRS/LL/01	CHILEMBWE		4														

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	Rehabilitation										Design doc & drawings (available; not available)	If available specify Title of document				
			Year of completion	Cost (MK)	Source of budget	Rehabilitation plan	If Yes Major work items				Budget	Donors						
							1	2	3	4								
WRS/NU/06	GALA		1				NO									NOT AVAILABLE		
WRS/NU/05	KABANGO		1	2000		CARE MALAWI	NO										NOT AVAILABLE	
WRS/NU/03	KATEDZA		1	1960			NO										NOT AVAILABLE	
WRS/NU/02	DZAONE		1				NO										NOT AVAILABLE	
WRS/NU/01	CHIMVUU		1															
WRS/SA/01	CHIMOGA			2007			NO											NOT AVAILABLE
WRS/LL/40	PHAZILAMKANGO		4				NO											NOT AVAILABLE
WRS/LL/31	GOMANI						NO											NOT AVAILABLE
WRS/LL/38	BIWI		4	2011			NO											NOT AVAILABLE
WRS/LL/37	MAKOSANA		4															
WRS/LL/36	NAVUMI		4	2012		MEMBER OF PARLIAMENT												NOT AVAILABLE
WRS/LL/35	CHISAMBA 2		4															
WRS/LL/34	KAFULATILA		4															
WRS/LL/33	NALJERE		4															
WRS/LL/32	MANDALA		4	2012														NOT AVAILABLE
WRS/LL/31	CHILOBWE		4															
WRS/LL/30	TIDZIWANE		4															
WRS/LL/29	CHIKULUMAIWE		4	2006			YES	REMOVAL OF SEDIMENTS										
WRS/LL/28	KANJOKA		4	2012			YES	EMBARKMENT										
WRS/LL/27	NDALAMA		4															
WRS/LL/26	KALUMBO		4				YES	REMOVAL OF SEDIMENTS										NOT AVAILABLE
WRS/LL/25	MATAKA		4	2006				SPILLWAY	DAM CONSTRUCTION									NOT AVAILABLE
WRS/LL/24	NSANDULA		4	2008		GOVT	NO											NOT AVAILABLE
WRS/LL/23	KAFISI		4	2011		SELF	NO											NOT AVAILABLE
WRS/LL/22	KAWOCHE		4				YES	DAM					SELF					NOT AVAILABLE
WRS/LL/21	MUWOWA		4															NOT AVAILABLE
WRS/LL/20	NSUMBA		4															NOT AVAILABLE
WRS/LL/19	MSUNGA		4															
WRS/LL/18	BINETH		4															NOT AVAILABLE
WRS/LL/17	MATAMBO		4				NO											NOT AVAILABLE
WRS/LL/16	MLALE		4															NOT AVAILABLE
WRS/LL/15	MPHANGWE		4	2008			YES	SPILLWAY	DAM CONSTRUCTION									NOT AVAILABLE
WRS/LL/14	KAKOMA		4	2011		SELF HELP	NO											NOT AVAILABLE
WRS/LL/13	MWEZIWAUMA		4															NOT AVAILABLE
WRS/LL/12	MUDI		4															NOT AVAILABLE
WRS/LL/11	BANDA		4				NO											NOT AVAILABLE
WRS/LL/10	MSAMPHA		4	2012			NO											NOT AVAILABLE
WRS/LL/09	NYEMBA		4				NO											NOT AVAILABLE
WRS/LL/08	MALIRO AFUNDANJI		4															NOT AVAILABLE
WRS/LL/07	MAZINGA		4															NOT AVAILABLE
WRS/LL/06	KAKOMA		4															NOT AVAILABLE
WRS/LL/05	NAMSONGOLE		4				NO											NOT AVAILABLE
WRS/LL/04	DZUWA		4															NOT AVAILABLE
WRS/LL/03	CHIKONGOLO		4															NOT AVAILABLE
WRS/LL/02	LIWUNGU		4				NO											NOT AVAILABLE
WRS/LL/01	CHILEMBWE		4				NO											NOT AVAILABLE

CHAPTER 7 RESERVOIR SURVERY

Reservoir Code	Reservoir Name	River (WRA)	If available specify		Date of Survey	Head of Survey	Comments
			Drawings	Office in Charge			
WRS/NU/06	GALA	1			16/10/2012	NANTCHUKWA	
WRS/NU/05	KABANGO	1			16/10/2012	NANTCHUKWA	HAS LOT OF WATER ABANDONED
WRS/NU/03	KATEDZA	1			15/10/2012	NANTCHUKWA	
WRS/NU/02	DZAONE	1			15/10/2012	NANTCHUKWA	
WRS/NU/01	CHIMVUU	1			15/10/2012	NANTCHUKWA	
WRS/SA/01	CHIMOGA				17/10/2012	NANTCHUKWA	
WRS/LL/40	PHAZILAMKANGO	4			7/10/2012	NANTCHUKWA	
WRS/LL/31	GOMANI				9/10/2012	NANTCHUKWA	
WRS/LL/38	BIWI	4			09/10/2012	NANTCHUKWA	
WRS/LL/37	MAKOSANA	4			04/10/2012	NANTCHUKWA	
WRS/LL/36	NAVUMI	4			07/12/2012	NANTCHUKWA	
WRS/LL/35	CHISAMBA 2	4			09/10/2012	NANTCHUKWA	IT IS A POND
WRS/LL/34	KAFULATILA	4			11/10/2012	NANTCHUKWA	ABANDONED AND NO IRRIGATION TAKING PLACE BRIDGE HAS CRUVERT
WRS/LL/33	NALIJERE	4				NANTCHUKWA	RESERVOIR IS DRY
WRS/LL/32	MANDALA	4			07/10/2012	NANTCHUKWA	
WRS/LL/31	CHILOBWE	4			04/10/2012	NANTCHUKWA	ABANDONED DUE TO SILTATION
WRS/LL/30	TIDZIWANE	4			09/10/2012	NANTCHUKWA	IT IS A POND
WRS/LL/29	CHIKULUMAIWE	4				NANTCHUKWA	
WRS/LL/28	KANJOKA	4			11/12/2012	NANTCHUKWA	
WRS/LL/27	NDALAMA	4				NANTCHUKWA	
WRS/LL/26	KALUMBO	4			09/10/2012	NANTCHUKWA	
WRS/LL/25	MATAKA	4			11/10/2012	NANTCHUKWA	
WRS/LL/24	NSANDULA	4			12/10/2012	NANTCHUKWA	
WRS/LL/23	KAFISI	4			11/10/2012	NANTCHUKWA	ITS A POND
WRS/LL/22	KAWOCHE	4			11/10/2012	NANTCHUKWA	ITS A POND
WRS/LL/21	MUWOWA	4			11/10/2012	NANTCHUKWA	
WRS/LL/20	NSUMBA	4			11/10/2012	NANTCHUKWA	
WRS/LL/19	MSUNGA	4			80/10/2012	NANTCHUKWA	TOBACCO ESTATE
WRS/LL/18	BINETH	4			12/10/2012	NANTCHUKWA	
WRS/LL/17	MATAMBO	4			10/12/2012	NANTCHUKWA	
WRS/LL/16	MLALE	4			12/10/2012	NANTCHUKWA	
WRS/LL/15	MPHANGWE	4			9/10/2012	NANTCHUKWA	
WRS/LL/14	KAKOMA	4			06/10/2012	NANTCHUKWA	
WRS/LL/13	MWEZIWAUMA	4			05/10/2012	NANTCHUKWA	ABANDONED
WRS/LL/12	MUDI	4			5/10/2012	NANTCHUKWA	broken stream
WRS/LL/11	BANDA	4			06/10/2012	NANTCHUKWA	
WRS/LL/10	MSAMPHA	4			12/10/2012	NANTCHUKWA	
WRS/LL/09	NYEMBA	4			11/10/2012	NANTCHUKWA	
WRS/LL/08	MALIRO AFUNDANJI	4			11/10/2012	NANTCHUKWA	ITS A POND
WRS/LL/07	MAZINGA	4			09/10/2012	NANTCHUKWA	
WRS/LL/06	KAKOMA	4			08/10/2012	NANTCHUKWA	
WRS/LL/05	NAMSONGOLE	4			09/10/2012	NANTCHUKWA	ABANDONED
WRS/LL/04	DZUWA	4			06/10/2012	NANTCHUKWA	ABANDONED AND DRY
WRS/LL/03	CHIKONGOLO	4			04/10/2012	NANTCHUKWA	
WRS/LL/02	LIWUNGU	4			08/10/2012	NANTCHUKWA	
WRS/LL/01	CHILEMBWE	4			10/10/2012	NANTCHUKWA	

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Age	Address	Tel	Location			Family Size	Source of Income							
							GPS (Coordinates)				Farming	Kiosk	Fishing	Permanent Work	Temporary Work	External Assistance		Other
							Latitude	Longitude	Altitude (m)							Money	If Yes, Specify	
FLD-RUK-01	MRS. P.N. MUNDULASI	Female	NORTH RUKURU	48	BOX 97, BAKA RESEARCH, KARONGA	N/A	8901835	600016	488	7	YES	YES	NO	NO	NO	NO	N/A	N/A
FLD-RUK-24	MRS. MWESO	Female	NORTH RUKURU, SH	23	BOX 49, WILILO, KARONGA	995539945	8899747	575469		5	YES	NO	NO	NO	YES	NO	N/A	N/A
FLD-RUK-02	MRS. MWAMONJE	Female	NORTH RUKURU	47	BOX 97,BAKA RESEARCH,KARONGA	N/A	8901843	600570	488	8	YES	YES	NO	YES	NO	NO	N/A	N/A
FLD-RUK-03	MRS E. NKHONDE	Female	NORTH RUKURU	30	BOX 97, BAKA RESEARCH, KARONGA	N/A	8901894	600340	490	7	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-RUK-04	MRS. MWEKINDA	Female	NORTH RUKURU	28	BOX 102, BAKA COMMUNITY DAY SECONDARY SCHOOL	999074515	8901858	6000659	475	6	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-RUK-05	MR. KAWONEKA	Male	NORTH RUKURU	35	BOX 97, BAKA RESEARCH, KARONGA	993086943	8901420	602994	491	5	YES	YES	NO	NO	NO	NO	N/A	N/A
FLD-RUK-06	MRS. MBEWE	Female	NORTH RUKURU	40	BOX 321, KARONGA CCAP	999764869	8901735	600636	399	8	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-RUK-07	MR. S. KARAMBO	Male	NORTH RUKURU	51	Chirambiro school	999456478	8900504	594866		10	yes	no	no	no	no	no	N/A	N/A
FLD-RUK-	MRS. M. MWAMULIMA	Female	NORTH RUKURU	23	Chirambiro school	N/A	8900945	594826		4	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-RUK-09	MR. RSK. MWENISONGOLE	Male	NORTH RUKURU	74	Chirambiro school	994248203	8900871	594531		6	yes	no	no	no	no	no	N/A	N/A
FLD-RUK-10	MRS. NYONDO	Female	NORTH RUKURU	43	BOX 15, CHILAMBILO	N/A	8900892	594666		7	YES	no	no	no	no	no	N/A	N/A
FLD-RUK-11	MR. MWENECHINGA	Male	NORTH RUKURU	40	BOX 15, CHILAMBILO	N/A	8900931	594946		11	YES	NO	NO	NO	NO	no	N/A	N/A
FLD-RUK-12	MR. F. CHILONGO	Male	NORTH RUKURU	35	BOX 15, CHILAMBILO	N/A	8902922	601409	492	9	YES	NO	NO	NO	YES	NO	N/A	N/A
FLD-RUK-13	MR. M. NDEMBO	Male	NORTH RUKURU	25	Lulindo School	996147702	8902858	601271	490	4	YES	no	no	no	no	no	N/A	N/A
FLD-RUK-14	MRS. E. NAKAUNDE	Female	NORTH RUKURU	68	Lulindo School	N/A	8902652	601114	490	8	no	no	no	no	no	yes	help from children	N/A
FLD-RUK-15	MR. A. SIWALE	Male	NORTH RUKURU	50	BOX 361, NKHANDO	999174536	8900855	186717		16 (TWO FAMILIES)	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-RUK-16	MR. S. MWANGOLOWO	Male	NORTH RUKURU	30	BOX 93, KARONGA	99345233	8902036	58564		9	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-RUK-17	MRS. K. MWANKINA	Female	NORTH RUKURU	21	BOX 93, KARONGA	N/A	8901855	585202		2	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-RUK-18	MR. M. MANKENJA	Male	NORTH RUKURU	80	PA MPATA	N/A	8927873	598706		5	YES	NO	NO	NN	NO	NO	N/A	N/A
FLD-RUK-19	MR. S.T. MWANDEPENDA	Male	NORTH RUKURU	62	BOX 15, KARONGA	999349991	8902686	600749	494M	16	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-RUK-20	MRS. T. SIFUKWE	Female	NORTH RUKURU	52	Vilaula	996676726	8901224	585063		6	yes	no	no	no	no	no	N/A	N/A

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	How long have you lived at this place (Yrs)	Education Attainment	Information about House/Shop				How often they experience flood that require evacuation	Time of the year when floods normally happens (yr/month/day)	Yr of Largest Flood	How long does water log at their place
						Size of the House / Shop Area		Material Used to Construct Walls of the					
						Total plot Including Garden	House, Ground Floor (Excluding floor)	Choose Options	Other				
sq.m	sq.m												
FLD-RUK-01	MRS. P.N. MUNDULASI	Female	NORTH RUKURU	1 to 10	Primary	0.2	55	Brick and Earth Mortar	N/A	Every Yr	MARCH, APRIL	1997, 2010	1 DAY
FLD-RUK-24	MRS. MWESO	Female	NORTH RUKURU, SE	1 to 10	Secondary	0.4	200	Brick/Cement	N/A	Every 2 Yrs	FEBRUARY, MARCH	2010	12HOURS
FLD-RUK-02	MRS. MWAMONJE	Female	NORTH RUKURU	1 to 10	Primary	0.8	162	Brick and Earth Mortar	N/A	Every Yr	MARCH, APRIL	19,972,010	1 DAY
FLD-RUK-03	MRS E. NKHONDE	Female	NORTH RUKURU	1 to 10	Primary	0.2	120	Brick and Earth Mortar	N/A	Every Yr	MARCH, APRIL	19,972,010	1 DAY
FLD-RUK-04	MRS. MWEKINDA	Female	NORTH RUKURU	11 to 20	Secondary	0.1	60	Brick and Earth Mortar	N/A	Every Yr	DECEMBER, FEBRUARY, MARCH	1997, 2010	1 DAY
FLD-RUK-05	MR. KAWONEKA	Male	NORTH RUKURU	1 to 10	Secondary	0.6	570	Brick and Earth Mortar	N/A	Every 2 Yrs	MARCH, APRIL	1997, 2010	1 DAY
FLD-RUK-06	MRS. MBEWE	Female	NORTH RUKURU	More than 40	Secondary	0.1	180	Brick and Earth Mortar	N/A	Every Yr	DECEMBER, March, April	19,972,010	1 DAY
FLD-RUK-07	MR. S. KARAMBO	Male	NORTH RUKURU	1 to 10	Primary	0.1	748	Brick and Earth Mortar	N/A	Every Yr	December, March	2005	1 day
FLD-RUK-	MRS. M. MWAMULIMA	Female	NORTH RUKURU	1 to 10	Primary	0.1	392	Brick and Earth Mortar	N/A	Every 2 Yrs	March, April	2010	2 days
FLD-RUK-09	MR. RSK. MWENISONGOLE	Male	NORTH RUKURU	More than 40	Primary	0.2	480	Brick and Earth Mortar	N/A	None	February, March, April	2010	1 week
FLD-RUK-10	MRS. NYONDO	Female	NORTH RUKURU	11 to 20	None	0.6	30	Bamboo/Straw	N/A	Every Yr	February, March	2010	2days
FLD-RUK-11	MR. MWENECHINGA	Male	NORTH RUKURU	31 to 40	Primary	10	162	Brick and Earth Mortar	N/A	Every Yr	February, March	2010	1 week
FLD-RUK-12	MR. F. CHILONGO	Male	NORTH RUKURU	11 to 20	Primary	0.1	480	Brick and Earth Mortar	N/A	Every 2 Yrs	MARCH, APRIL	2010	1 week
FLD-RUK-13	MR. M. NDEMBO	Male	NORTH RUKURU	1 to 10	None	0.1	180	Brick and Earth Mortar	N/A	Every Yr	December to April	2010	1 month
FLD-RUK-14	MRS. E. NAKAUNDE	Female	NORTH RUKURU	More than 40	None	0.1	918	Brick and Earth Mortar	n/A	Every 2 Yrs	MARCH, APRIL	2010	1 week
FLD-RUK-15	MR. A. SIWALE	Male	NORTH RUKURU	More than 40	Primary	0.2	54	Brick and Earth Mortar	N/A	Every Yr	March, February	199,719,981,975	1 week
FLD-RUK-16	MR. S. MWANGOLOWO	Male	NORTH RUKURU	11 to 20	None	0.1	6	Bamboo/Straw	earth mortar	Every 2 Yrs	March and April	2010	3 days
FLD-RUK-17	MRS. K. MWANKINA	Female	NORTH RUKURU	1 to 10	Primary	0.1	32	Brick and Earth Mortar	N/A	Every 2 Yrs	March and April	1997	5 days
FLD-RUK-18	MR. M. MANKENJA	Male	NORTH RUKURU	More than 40	Primary	0.2	66	Wood	N/A	Every Yr	December, January	1959, 2010	3 days
FLD-RUK-19	MR. S.T. MWANDEPENDA	Male	NORTH RUKURU	31 to 40	Secondary	0.1	10	Brick and Earth Mortar	N/A	Every Yr	March, April, May	2007	3 weeks
FLD-RUK-20	MRS. T. SIFUKWE	Female	NORTH RUKURU	More than 40	Secondary	0.1	10	Bamboo/Straw	grass	Every Yr	March and April	20,102,011	8hours

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Maximum inundation depth at their home	Speed of the Hazard	Source of Flooding Water		Story about Flood hazard	Did the community know about about Flood Occurance?	
						Choose Option	Other (Pls Specify)		Yes or No	If Yes How did they know
FLD-RUK-01	MRS. P.N. MUNDULASI	Female	NORTH RUKURU	1.5M	Fast	River	N/A	It happened at night when everyone was sleeping. They heard the sound of water then realised it was flooding. It happened so fast that they could not organise their property including food.	Yes	reading the weather, they see a certain type of birds
FLD-RUK-24	MRS. MWESO	Female	NORTH RUKURU, SE	1/2M	Fast	River	N/A	It was a heavy and fast flooding. The floods did not stay long, it did not affect their house, only crops in the field. The village is surrounded by two rivers hence fast floods.	Yes	Radio
FLD-RUK-02	MRS. MWAMONJE	Female	NORTH RUKURU	1M	Fast	River	N/Ai	It was a sudden experience, they did not have any warning before flooding. They just heard the sound of the waters. They however noticed heavy rains but they were not certain that it was going to flood.no	No	N/A
FLD-RUK-03	MRS E. NKHONDE	Female	NORTH RUKURU	1M	Fast	River	N/A	It was a heavy flooding but happened within a short period of time. There was an excessive rainfall that sent RUKURU out of its banks. It destroyed everything around the place.	No	N/A
FLD-RUK-04	MRS. MWEKINDA	Female	NORTH RUKURU	1M	Fast	River	N/A	Floods were so fast. They developed slowly, sometimes over a period of days. They had a dangerous wall of roaring water that carried rocks, mud and other dangerous animals like snakes. They swept away most things in its path.	Yes	N/A
FLD-RUK-05	MR. KAWONEKA	Male	NORTH RUKURU	2M	Fast	River	N/A	water began spilling over the edges of north RUKURU, it was much water at once since they live close to the village. Floods left some significant damage, destroyed homes, crops and anything in their earth	Yes	They saw rain coming from nyika side, observed clouds, when the river if full. They also noticed a certain type of birds close to their place
FLD-RUK-06	MRS. MBEWE	Female	NORTH RUKURU	1M	Fast	River	N/A	It was heavy flooding, they had no time to prepare themselves since they did not have any warning about the floods and it happened at night when there were fast asleep, they lost all their belonging.	No	N/A
FLD-RUK-07	MR. S. KARAMBO	Male	NORTH RUKURU	1/2m	Fast	River	Stream	They had heavy rainfall in 2010, it was at night, they heard their friend shouting. They realised it was flooding, the whole surrounding was filled with water.	No	N/A
FLD-RUK-	MRS. M. MWAMULIMA	Female	NORTH RUKURU	1.2m	Fast	River		we had heavy rains and it was at night, that was when we discovered that our house was surrounded by water. The following morning we went to the field to check our crops, we found our crops damaged by water, it took one week for field to dry.	No	N/A
FLD-RUK-09	MR. RSK. MWENISONGOLE	Male	NORTH RUKURU	1m	Fast	River	N/A	There was heavy rainfall for three days, non stop, that made people not to go out because the whole place had water and it was difficult for them to cook, children could not go to school because it was difficult to move as the whole place was filled with water.	Yes	Reading the weather (when there is heavy rainfall)
FLD-RUK-10	MRS. NYONDO	Female	NORTH RUKURU	1m	Fast	River	n/a	It was heavy and fast flooding because they are in surrounded by two rivers and the place is at the bottom mountains. This made it very dangerous, they lost all their belonging and farm crops.	Yes	radio
FLD-RUK-11	MR. MWENECHINGA	Male	NORTH RUKURU	1m	Fast	River	n/a	Floods came from north RUKURU and the mountain (nthembo), It was heavy flooding because they live at the bottom of a mountain, they lost 3 people(drowned).	Yes	radio, observing the weather
FLD-RUK-12	MR. F. CHILONGO	Male	NORTH RUKURU	1M	Fast	River	N/A	they were fast asleep, they heard people shouting and the sound of water, when they woke up the found the water inside the house and around the compound.	Yes	It a routine, it happens every year around the same months
FLD-RUK-13	MR. M. NDEMBO	Male	NORTH RUKURU	1.2m	Fast	River	n/a	we had a heavy rainfall and it was at night, it reached to the point of people carrying dogs thinking that they were carrying babies, by the time they realised that they were dogs they found babies suffocating with water	Yes	they received heavy rainfall and knew that it was going to flood
FLD-RUK-14	MRS. E. NAKAUNDE	Female	NORTH RUKURU	1m	Fast	River	n	It was around mid night, they had heavy rains, they did not even eat for a week because water was everywhere. Everything along the flood path was gone. There were attack by different diseases eg malaria, typhod and cholera.	No	N/A
FLD-RUK-15	MR. A. SIWALE	Male	NORTH RUKURU	1.5m	Fast	River	n/a	It happened at night. It was life threatening heavy and fast flood. They were greatly affected, had no time to prepare things because flood came from two different rivers, niwonda and north RUKURU	No	n/a
FLD-RUK-16	MR. S. MWANGOLOWO	Male	NORTH RUKURU	0.5m	Fast	River	n/a	They were asleep in their temporary house because their permanent house had been damaged by earthquake. It was obvious that the field was greatly affected as it sides with the river, and they were afraid of the waters	Yes	hearing the sound of the river
FLD-RUK-17	MRS. K. MWANKINA	Female	NORTH RUKURU	1.8m	Fast	River	n/a	it was around 12 midnight, the rain was so heavy, they just heard the sound of their cattle. They then realised the whole area was filled with water.	Yes	they realised it was great rain on the other side of the village and knew it was going to flood
FLD-RUK-18	MR. M. MANKENJA	Male	NORTH RUKURU	2m	Fast	River	n/a	They did not notice the floods as it happened at night. They lost all their belonging as it was a fast a heavy flood.	Yes	radio and neighbour villages
FLD-RUK-19	MR. S.T. MWANDEPENDA	Male	NORTH RUKURU	1.2m	Fast	River	N/A	It happened at night with just showers of rain, later they decided it was flooding, they lost all their livestock and property	No	N/A
FLD-RUK-20	MRS. T. SIFUKWE	Female	NORTH RUKURU	0.5m	Fast	River	n/a	There was heavy rainfall, north RUKURU was filled and water started spilling over to out place. We did not manage to relocate our livestock, stored food and property as it happened when we were fast asleep, we just heard the sound of the water.	No	n/a

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	How many days /months did it take before the hazard occurred	What happened when the flood occurred	Forces
						What was affected and by what?
FLD-RUK-01	MRS. P.N. MUNDULASI	Female	NORTH RUKURU	3days	Crops were damaged, there was disease outbreak, houses were damaged, people lost their property and livestock	People were affected by diseases, crops damaged by water
FLD-RUK-24	MRS. MWESO	Female	NORTH RUKURU, SE	3days	crops were damaged, there was disease outbreak, houses were damaged, people lost their property and livestock	crops were damaged by running water, people were affected by diseases, livestock drowned and some taken by water.
FLD-RUK-02	MRS. MWAMONJE	Female	NORTH RUKURU	N/A	People left the community to an evacuation center, there was disease outbreak and they lost their crops.	people were affected by diseases, crops damaged by water
FLD-RUK-03	MRS E. NKHONDE	Female	NORTH RUKURU	N/A	people left the community to an evacuation center, there was disease outbreak and they lost their crops and livestock.	People and livestock die due to drowning. Water logging also lead to epidemics and diseases.
FLD-RUK-04	MRS. MWEKINDA	Female	NORTH RUKURU	N/A	People left the village to an evacuation center, crops were damaged by both running water and water logging, livestock drowned and some were taken by water.	people were affected by diseases, they lost their farm products and stored food, crops were damaged due to water logging.
FLD-RUK-05	MR. KAWONEKA	Male	NORTH RUKURU	1 day	crops were damaged, there was disease outbreak, houses were damaged, people lost their property, houses and livestock	crops were affected by running water and water logging. Animals affected by floods, people affected by diseases.
FLD-RUK-06	MRS. MBEWE	Female	NORTH RUKURU	N/A	People were homeless, they had no food to eat, schools were closed, it was difficult to walk to the hospital and markets, everything stoped including businesses.	Crops were affected by running water and water logging, people were affected by diseases, houses were damaged by the flood.
FLD-RUK-07	MR. S. KARAMBO	Male	NORTH RUKURU	N/A	There was hunger and diseases because all their food/crops were destroyed/taken by water, there was also multiplication of flies which lead to diseases.	Crops destroyed by water, people got diseases
FLD-RUK-	MRS. M. MWAMULIMA	Female	NORTH RUKURU	N/A	Crops were taken and destroyed by water, leaving us with no food	Crops affected by water logging
FLD-RUK-09	MR. RSK. MWENISONGOLE	Male	NORTH RUKURU	4 days	There was hunger as all the crops and stored food were taken by running water	crops were affected by water, people because they had no food, they were attacked by diseases
FLD-RUK-10	MRS. NYONDO	Female	NORTH RUKURU	1 week	People left their places, there were diseases and hunger, they lost their crops and stored food.	Crops by running water and water logging, people by diseases and hunger
FLD-RUK-11	MR. MWENECHINGA	Male	NORTH RUKURU	4 days	People let their homes to chilambilo school, they lost their farm crops and stored food, there was disease outbreak	people were affected by diseases, crops damaged by water, both running and logging
FLD-RUK-12	MR. F. CHILONGO	Male	NORTH RUKURU	n/a	they failed to performe their farm activities, businesses, even children failed to go to scholl	Crops were affected by running water and water logging. Animals affected by floods, people affected by diseases.
FLD-RUK-13	MR. M. NDEMBO	Male	NORTH RUKURU	10hours	they suffered a lot because there was water everywhere, they had nothing to eat because they lost their food and utensils.	livestock drowned and some taken by water, crops were damaged by running water and water logging, people had no time to finish their farm work as they coul not move.
FLD-RUK-14	MRS. E. NAKAUNDE	Female	NORTH RUKURU	N/A	it was a mess because water was everywhere, children were unable to go to school because it was difficult for them to move and the school was used as an evacuation center	livestock drowned and some taken by water, crops were damaged by running water and water logging, people had no time to finish their farm work as they coul not move.
FLD-RUK-15	MR. A. SIWALE	Male	NORTH RUKURU	n/a	livestock died, crops damaged, diseases were common, all this because of water logging	crops and animals were damaged by both running water and water logging
FLD-RUK-16	MR. S. MWANGOLOWO	Male	NORTH RUKURU	hours	there was water everywhere, it was difficult for people to stay or move, they evacuated to the main road while waiting for the floods to calm	crops and livestock were affected by water, people could not performe their duties and houses were dameaged
FLD-RUK-17	MRS. K. MWANKINA	Female	NORTH RUKURU	10 hours	Hunger and diseases due to multiplication of flies, their crops and livestock were affected by the water	Crops and animals were affected by running water
FLD-RUK-18	MR. M. MANKENJA	Male	NORTH RUKURU	1 day	crops were destroyed by water, both running water and water logging, there was disease outbreak, they had no food	Crops and livestock were affected by running water
FLD-RUK-19	MR. S.T. MWANDEPENDA	Male	NORTH RUKURU	N/A	CROPS WERE destroyed by water, both running water and water logging, there was disease outbreak, they had no food	Peopla were affected by hunger since they lost all their food and farm crops, livestock were also affected by diseases and water
FLD-RUK-20	MRS. T. SIFUKWE	Female	NORTH RUKURU	n/a	Hunger and diseases, we had nothing at home as it was all taken by water	people were very much affected as they had nothing to eat and diseases attacked them

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Forces	What was the depth of evacuation?	Distance and Duration to Evacuation Centres		Did you get any alert about flood?	If yes, where did you get the information				
				Who were affected and How?		Length (m)	Duration (min)		Radio/TV	Neighbours	Police	Govt dept	Others (Specify)
FLD-RUK-01	MRS. P.N. MUNDULASI	Female	NORTH RUKURU	So many people had malaria due to an increase of mosquitoes. Diarrhoea (including cholera and dysentery)	1m	500	20	YES	NO	YES	NO	NO	N/A
FLD-RUK-24	MRS. MWESO	Female	NORTH RUKURU, SE	People were affected by diseases due to water logging, children could not move/go to school because the whole place was filled with water, crops were damaged by water logging and some by running water.	0.5m	300m	5	yes	yes	NO	NO	NO	N/A
FLD-RUK-02	MRS. MWAMONJE	Female	NORTH RUKURU	The people were affected, they had no food to eat, lost all their belongings, there was disease outbreak.	1m	300	5	NO	NO	NO	NO	NO	N/A
FLD-RUK-03	MRS E. NKHONDE	Female	NORTH RUKURU	People were hit by Economic hardship, due to rebuilding costs, food shortage leading to price increase. Roadways, canals and Bridges were damaged	1m	500	7 (it was difficult walk because of the water)	NO	NO	NO	NO	NO	N/A
FLD-RUK-04	MRS. MWEKINDA	Female	NORTH RUKURU	People; There was diseases outbreak, The organic material (bodies, food, animal droppings) begins to rot and spread a basis for disease. They had no food to eat since everything was taken by water.	1M	200M	4	NO	NO	NO	NO	NO	N/A
FLD-RUK-05	MR. KAWONEKA	Male	NORTH RUKURU	The organic material (bodies, food, animal droppings) begins to rot and spread a basis for disease.	1/2m	1km	30	NO	NO	NO	NO	NO	N/A
FLD-RUK-06	MRS. MBEWE	Female	NORTH RUKURU	People were affected, they had no place to live, no food and got some waterborne diseases	1M	100M	3M	NO	NO	NO	NO	NO	N/A
FLD-RUK-07	MR. S. KARAMBO	Male	NORTH RUKURU	People got sick because there were lots of flies, they had no food since it was taken and destroyed by water	N/A	N/A	N/A	NO	N/A	N/A	N/A	N/A	N/A
FLD-RUK-	MRS. M. MWAMULIMA	Female	NORTH RUKURU	people due to waterborne disease and malaria as the water acted like a bleeding place for mosquitoes, they had no food since their crops died due to water logging because some crops need little amount of water.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FLD-RUK-09	MR. RSK. MWENISONGOLE	Male	NORTH RUKURU	People were affected by disease because the waters acted like a bleeding place for mosquitoes, they also had no food since everything was taken by water.	N/A	N/A	N/A	NO	no	no	no	no	N/A
FLD-RUK-10	MRS. NYONDO	Female	NORTH RUKURU	people, there was hunger because both farm crops and stored food were destroyed by water	1.	200m	5min	yes	yes	yes	no	no	N/A
FLD-RUK-11	MR. MWENECHINGA	Male	NORTH RUKURU	people, they had no food since evrything was taken by water, malaria as the place was acting like a bleeding place.	1m	100m	4min	yes	yes	yes	no	no	N/A
FLD-RUK-12	MR. F. CHILONGO	Male	NORTH RUKURU	People, they had no food since evrything was taken by water, malaria as the place was acting like a bleeding place.	1m	250m	10min	NO	no	no	no	no	N/A
FLD-RUK-13	MR. M. NDEMBO	Male	NORTH RUKURU	People, by diseases and hunger, they lost all their stored food and crops were damaged	1.2m	250	10	NO	no	no	no	no	N/A
FLD-RUK-14	MRS. E. NAKAUNDE	Female	NORTH RUKURU	people were affected by diseases due an increase of mosquitoes and the destruction of crops in farms	1m	2km	2hrs	NO	no	no	no	no	N/A
FLD-RUK-15	MR. A. SIWALE	Male	NORTH RUKURU	people were affected by diseases and hunger due caused by the floods	1.5m	100	20min (it was difficult to move in waters)	no	no	no	no	no	n/a
FLD-RUK-16	MR. S. MWANGOLOWO	Male	NORTH RUKURU	people were affected by diseases and hunger as they had nothing to eat and an increase of mosquitoes	0.5m	200	5min	no	no	no	no	no	n/a
FLD-RUK-17	MRS. K. MWANKINA	Female	NORTH RUKURU	people were docile at this period, they could not perform their duties, they were attacked by diseases too	1.8m	300m	6min	yes	no	no	no	yes	n/a
FLD-RUK-18	MR. M. MANKENJA	Male	NORTH RUKURU	people were left hungry, they had no food and all their belonging were taken by the flood, they were also affected by diseases due to multiplication of flies	1m	500m	30min	yes	no	yes	no	no	n/a
FLD-RUK-19	MR. S.T. MWANDEPENDA	Male	NORTH RUKURU	People had no food to eat because their food was taken by water, there were diseases do to multiplication of flies including mosquitoes		1.2 1.5km	1.5hrs	no	no	no	no	no	n/a
FLD-RUK-20	MRS. T. SIFUKWE	Female	NORTH RUKURU	Hunger and diseases due to damage of stores food and multiplication of flies respectively	1m	300	5min	yes	yes	no	no	no	n/a

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Did you know Evacuation Centres	Where did you evacuate during flood?	Duration at the Evacuation centre	Availability of Safe Storage System in the House	Money saved for eventuaities	Availability of Development facilitators for Early Warning Systems	How often do they come	Are villagers united during floods?	Is there an opportunity to strengthen houses for the poor	Whether belongings were taken during evacuation	Condition of road to evacuation centres
FLD-RUK-01	MRS. P.N. MUNDULASI	Female	NORTH RUKURU	YES	BAKA COMMUNITY DAY SECONDARY SCHOOL	1 day	NO	NO	NO	N/A	YES	YES	NO	FAIR
FLD-RUK-24	MRS. MWESO	Female	NORTH RUKURU, SE	NO	Kayuni Primary School	1day	no	no	NO	N/A	NO	YES	NO	FAIR
FLD-RUK-02	MRS. MWAMONJE	Female	NORTH RUKURU	YES	BAKA COMMUNITY DAY SECONDARY SCHOOL	1 DAY	NO	NO	NO	N/A	YES	YES	NO	FAIR
FLD-RUK-03	MRS E. NKHONDE	Female	NORTH RUKURU	YES	BAKA COMMUNITY DAY SECONDARY SCHOOL	2 DAYS	NO	NO	NO	N/A	YES	YES	NO	FAIR
FLD-RUK-04	MRS. MWEKINDA	Female	NORTH RUKURU	YES	BAKA COMMUNITY DAY SECONDARY SCHOOL	1 DAY	NO	NO	NO	N/A	YES	YES	YES	FAIR
FLD-RUK-05	MR. KAWONEKA	Male	NORTH RUKURU	YES	BAKA COMMUNITY DAY SECONDARY SCHOOL	1 DAY	YES	YES	NO	N/A	YES	YES	NO	FAIR
FLD-RUK-06	MRS. MBEWE	Female	NORTH RUKURU	YES	BAKA COMMUNITY DAY SECONDARY SCHOOL	2 DAYS	NO	NO	NO	N/A	YES	YES	NO	GOOD
FLD-RUK-07	MR. S. KARAMBO	Male	NORTH RUKURU	N/A	N/A	N/A	YES	NO	NO	N/A	NO	NO	N/A	N/A
FLD-RUK-	MRS. M. MWAMULIMA	Female	NORTH RUKURU	N/A	N/A	N/A	YES	YES	NO	N/A	YES	YES	NO	N/A
FLD-RUK-09	MR. RSK. MWENISONGOLE	Male	NORTH RUKURU	N/A	n/a	N/A	no	NO	NO	N/A	NO	NO	n/a	N/A
FLD-RUK-10	MRS. NYONDO	Female	NORTH RUKURU	yes	Chirambilo school	1 week	no	no	no	N/A	no	YES	no	fair
FLD-RUK-11	MR. MWENECHINGA	Male	NORTH RUKURU	yes	chirambilo school	1 week	no	no	no	N/A	no	YES	no	fair
FLD-RUK-12	MR. F. CHILONGO	Male	NORTH RUKURU	yes	along the main road	1 week	yes	yes	no	N/A	yes	yes	no	fair
FLD-RUK-13	MR. M. NDEMBO	Male	NORTH RUKURU	no	Last Church	1 month	no	no	no	N/A	no	YES	no	worse
FLD-RUK-14	MRS. E. NAKAUNDE	Female	NORTH RUKURU	no	Church	1 week	yes	no	no	N/A	yes	yes	no	good
FLD-RUK-15	MR. A. SIWALE	Male	NORTH RUKURU	yes	on top of the mountain	1 week	no	no	no	n/a	no	yes	no	bad
FLD-RUK-16	MR. S. MWANGOLOWO	Male	NORTH RUKURU	yes	along the main load	3 days	yes	no	no	n/a	yes	no	no	fair
FLD-RUK-17	MRS. K. MWANKINA	Female	NORTH RUKURU	yes	along the main load	5 days	yes	no	yes	2/month	yes	no	no	fair
FLD-RUK-18	MR. M. MANKENJA	Male	NORTH RUKURU	yes	Vilaule	5 days	no	no	no	n/a	noyes	yes	no	bad
FLD-RUK-19	MR. S.T. MWANDEPENDA	Male	NORTH RUKURU	no	Lulindo FB School	1 month	no	no	no	n/a	no	yes	no	worse
FLD-RUK-20	MRS. T. SIFUKWE	Female	NORTH RUKURU	yes	Vilaule School	3 days	yes	no	yes	1/yr	yes	no	no	good

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Frequency of maintaining access roads	Whether quality water and power is available at the evacuation centres	Is there safe shelter for livestock	Costs of Direct Damage in the Largest Flood (MK)					Major Diseases during flood					Major Challenges related to Gender
							House	Agricultural	Property	Other (specify)	Total Damage	Typhoid	Dysentery	Cholera	Malaria	Others (Pls Specify)	Discrimination
FLD-RUK-01	MRS. P.N. MUNDULASI	Female	NORTH RUKURU	1/YR	YES	NO	N/A	N/A	20,000MK	50,000MK(LIVES TOCK)	70,000MK	YES	NO	YES	YES	N/A	NO
FLD-RUK-24	MRS. MWESO	Female	NORTH RUKURU, SE	1/MONTH	NO	NO	N/A	100,000MK	N/A	N/A	100,000MK	NO	NO	YES	YES	N/A	NO
FLD-RUK-02	MRS. MWAMONJE	Female	NORTH RUKURU	1/YR	YES	NO	N/A	20,000	4,000	N/A	24,000MK	YES	NO	YES	YES	N/A	NO
FLD-RUK-03	MRS E. NKHONDE	Female	NORTH RUKURU	1/YR	YES	NO	30,000MK	20,000MK	15,000MK	N/A	65,000MK	YES		YES	YES	N/A	NO
FLD-RUK-04	MRS. MWEKINDA	Female	NORTH RUKURU	1/YR	YES	NO	50,000MK	200,000MK	N/A	N/A	250,000MK	YES	NO	YES	YES	N/A	NO
FLD-RUK-05	MR. KAWONEKA	Male	NORTH RUKURU	1/YR	YES	NO	100,000MK	250,000MK	58,000MK	N/A	408,000MK	YES	NO	YES	YES	N/A	NO
FLD-RUK-06	MRS. MBEWE	Female	NORTH RUKURU	1/YR	YES	NO	N/A	100,000MK	50,000MK	N/A	150,000MK	YES	NO	YES	YES	N/A	NO
FLD-RUK-07	MR. S. KARAMBO	Male	NORTH RUKURU	N/A	N/A	N/A	15,000MK	108,000MK	N/A	CHICKENS 5,000MK	308,000MK	NO	YES	YES	YES	N/A	N/A
FLD-RUK-	MRS. M. MWAMULIMA	Female	NORTH RUKURU	N/A	YES	YES	N/A	85,000MK	N/A	N/A	85,000MK	NO	YES	YES	YES	N/A	NO
FLD-RUK-09	MR. RSK. MWENISONGOLE	Male	NORTH RUKURU	N/A	n/a	n/a	N/A	227,700MK	N/A	N/A	227,700MK	NO	YES	YES	YES	N/A	NO
FLD-RUK-10	MRS. NYONDO	Female	NORTH RUKURU	1/yr	yes	no	20,000mk	46,000mk	15,000mk	N/A	81,000mk	no	no	YES	YES	N/A	no
FLD-RUK-11	MR. MWENECHINGA	Male	NORTH RUKURU	1/yr	yes	no	50,000mk	100,000mk	20,000mk	N/A	170,000mk	no	NO	YES	YES	N/A	no
FLD-RUK-12	MR. F. CHILONGO	Male	NORTH RUKURU	1/yr	no	no	N/A	N/A	N/A	N/A	n/a	no	YES	YES	YES	N/A	no
FLD-RUK-13	MR. M. NDEMBO	Male	NORTH RUKURU	1/yr	no	no	10,000mk	46,000mk	N/A	N/A	56,000	no	yes	yes	yes	elephantiasis	no
FLD-RUK-14	MRS. E. NAKAUNDE	Female	NORTH RUKURU	1/yr	YES	no	30,000MK	N/A	15,000MK	N/A	45,000MK	YES	YES	YES	YES	N/A	NO
FLD-RUK-15	MR. A. SIWALE	Male	NORTH RUKURU	n/a	no	no	n/a	15,000MK	50,000MK	N/A	65,000MK	YES	NO	YES	YES	N/A	NO
FLD-RUK-16	MR. S. MWANGOLOWO	Male	NORTH RUKURU	1/yr	yes	no	5,000MK	20,000MK	3,000MK	n/a	28,000MK	no	yes	yes	yes	n/a	n/a
FLD-RUK-17	MRS. K. MWANKINA	Female	NORTH RUKURU	1/yr	yes	no	30,000MK	38,400MK	3,000MK	N/A	71,400MK	NO	YES	YES	YES	N/A	N/A
FLD-RUK-18	MR. M. MANKENJA	Male	NORTH RUKURU	n/a	no	no	15,000MK	6,000MK	12,000MK	N/A	33,000MK	no	no	yes	yes	N/A	no
FLD-RUK-19	MR. S.T. MWANDEPENDA	Male	NORTH RUKURU	1/yr	yes	no	70,000MK	10,000MK	350,500MK	BEDDINGS 60,000MK	495,500MK	YES	YES	YES	YES	N/A	NO
FLD-RUK-20	MRS. T. SIFUKWE	Female	NORTH RUKURU	n/a(it's a new road)	yes	yes	3,000MK	21,600MK	N/A	5,000MK (CHICKENS)	29,600MK	NO	YES	YES	YES	N/A	NO

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Major Challenges related to Gender During Evacuation			Any Reasons for not shifting to safe places	Interviewer		
				Violence	Hard Labour	Others (Pls Specify)		Date	Name	Witness (Name)
FLD-RUK-01	MRS. P.N. MUNDULASI	Female	NORTH RUKURU	YES	YES	N/A	THEY DO NOT HAVE MONEY TO BUY A NEW LAND	21/11/2012	WEMA CHIUMIA	
FLD-RUK-24	MRS. MWESO	Female	NORTH RUKURU, SE	NO	NO	N/A	THEY DO NOT WANT TO ABANDON THEIR VILLAGE	20/11/2012	WEMA CHIUMIA	
FLD-RUK-02	MRS. MWAMONJE	Female	NORTH RUKURU	YES	YES	N/A	They do not have enough money to buy a new land and build a house.	21/11/2012	weMA CHIUMIA	
FLD-RUK-03	MRS E. NKHONDE	Female	NORTH RUKURU	YES	YES	N/A	The do not have money to buy a new land	21/11/2012	WEMA CHIUMIA	
FLD-RUK-04	MRS. MWEKINDA	Female	NORTH RUKURU	YES	YES	N/A	Its their village, they have been at the place for a long time, the village acts as their identity	21/11/2012	weMA CHIUMIA	
FLD-RUK-05	MR. KAWONEKA	Male	NORTH RUKURU	YES	YES	N/A	They do not have money to buy a new land and start a new life	21/11/2012	wEMA CHIUMIA	
FLD-RUK-06	MRS. MBEWE	Female	NORTH RUKURU	YES	YES	N/A	They do not have money for a new land	21/11/2012	wEMA CHIUMIA	
FLD-RUK-07	MR. S. KARAMBO	Male	NORTH RUKURU	N/A	N/A	N/A	They have cultivation land at the place	20/11/2012	SELLAR MAMBO	
FLD-RUK-	MRS. M. MWAMULIMA	Female	NORTH RUKURU	NO	YES	N/A	Because its where they cultivate their crops, they do not have any other land	20/11/2012	WEMA CHIUMIA	
FLD-RUK-09	MR. RSK. MWENISONGOLE	Male	NORTH RUKURU	NO	NO	NO	They do not have another land for cultivation	20/11/2012	WEMA CHIUMIA	
FLD-RUK-10	MRS. NYONDO	Female	NORTH RUKURU	YES	no	n/a	Its their only land, they do not have any other place to stay or cultivate	20/11/2012	WEMA CHIUMIA	
FLD-RUK-11	MR. MWENECHINGA	Male	NORTH RUKURU	YES	no	n/a	they do not have money to buy a new land	20/11/2012	WEMA CHIUMIA	
FLD-RUK-12	MR. F. CHILONGO	Male	NORTH RUKURU	no	YES	n/a	they are used to the place, dambo area which they use to grow vegetables as a source of income	21/11/2012	WEMA CHIUMIA	
FLD-RUK-13	MR. M. NDEMBO	Male	NORTH RUKURU	no	no	no	They do not have any other place and no money to buy a new land			
FLD-RUK-14	MRS. E. NAKAUNDE	Female	NORTH RUKURU	NO	YES	N/A	They do not have money to buy a new land and build a house	21/11/2012	WEMA CHIUMIA	
FLD-RUK-15	MR. A. SIWALE	Male	NORTH RUKURU	YES	NO	N/A	This is the only place which is flat as they are surrounded by mountains.	20/11/2012	WEMA CHIUMIA	
FLD-RUK-16	MR. S. MWANGOLOWO	Male	NORTH RUKURU	n/a	n/a	n/a	it's the only place where they can cultivate, the soil is fertile	20/11/2012	WEMA CHIUMIA	
FLD-RUK-17	MRS. K. MWANKINA	Female	NORTH RUKURU	N/A	YES	N/A	It's the only place where they can cultivate, they do not have any other land	20/11/2012	WEMA CHIUMIA	
FLD-RUK-18	MR. M. MANKENJA	Male	NORTH RUKURU	yes	no	N/A	He is a chief, he can not leave his people behind, there are also mounitains around the place, no any other place to stay	20/11/2012	WEMA CHIUMIA	
FLD-RUK-19	MR. S.T. MWANDEPENDA	Male	NORTH RUKURU	NO	NO	N/A	They do not have any other place to stay	21/11/2012	WEMA CHIUMIA	
FLD-RUK-20	MRS. T. SIFUKWE	Female	NORTH RUKURU	NO	YES	N/A	The place is flat, suitable for farming and living, unlike other places which are hilly	20/11/2012	WEMA CHIUMIA	

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Age	Address	Tel	Location			Family Size	Source of Income					External Assistance		Other
							GPS (Coordinates)				Farming	Kiosk	Fishing	Permanent Work	Temporary Work	Money	If Yes, Specify	
							Latitude	Longitude	Altitude (m)									
FLD-RUK-21	MRS. D. MWALWENI	Female	RORTH RUKURU	90	Luwindo School	N/A	8902873	60242	489m	4	no	no	no	no	no	yes, from people sich she is very old	N/A	N/A
FLD-RUK-22	MRS. A. MBOMA	Female	NORTH RUKURU	26	Lulindo	995815268	8902733	6024321	487	8	YES	no	no	no	no	no	N/A	N/A
FLD-RUK-23	MRS. Q. GONDWE	Female	NORTH RUKURU	25	Kayuni School	N/A	8897851	5950761		3	yes	no	no	no	no	no	N/A	N/A
FLD-LIF-01	MR. T. DICKSON	Male	LIFIDZI	28	BOX 11, LIFIDZI	996880054	8462409	662076	462	2	YES	NO	NO	NO	YES	NO	NO	N/A
FLD-RUK-02	MR. A. KAMBANI	Male	LIFIDZI	34	BOX 11, LIFIDZI	N/A	8462453	662224	482	7	YES	NO	NO	NO	NO	NO	NO	N/A
FLD-LIF-03	MR. D. BWANALI	Male	LIFIDZI	41	BOX 11, LIFIDZI	997632459	8486905	616497	490	8	YES	yes	no	no	no	no	n/a	n/a
FLD-LIF-04	MR. S. NDUWERE KANJEZA	Male	LIFIDZI	84	BOX 11, LIFIDZI	N/A	8451590	585498	460	4	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-LIF-05	MR. C. CHILOPOLA	Male	LIFIDZI	56	BOX 11, LIFIDZI	N/A	8451590	585498	468	8	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-LIF-06	MR. N. MPINGANJIRA	Male	LIFIDZI	70	BOX 11, LIFIDZI	N/A	8451590	585498	455	6	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-SON-01	MR. S. MWAKIKUNGA	Male	SONGWE	43	BOX 29, KARONGA	N/A	8927399	599953		5	NO	NO	NO	NO	NO	FROM PEOPLE AS SHE IS VERY OLD	FROM PEOPLE AS SHE IS SICK	N/A
FLD-SON-01	MRS. MWAKAIRA	Female	SONGWE	55	BOX 29, KARONGA	N/A	8927286	599998		8	YES	NO	NO	NO	NO	NO	NO	N/A
FLD-SON-03	MRS. MASALADEMBWA	Female	SONGWE	SHE DOESN'T KNOW	BOX 29, MWANTENDE	N/A	8927151	599438		15	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-SON-04	MRS. MWASONGERA	Female	SONGWE	28	BOX 29, MWANTENDE	996011531	8927019	599717		7	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-SON-05	MR. M. MWANTENDE	Male	SONGWE	47	BOX 29, KAKOLIYA	991798587	8927063	599899		11	YES	NO	NO	NO	NO	NO	NO	N/A
FLD-SON-06	MR. M. MWAKA	Male	SONGWE	23	BOX 29, KAKOLIYA	N/A	8926927	5997621		4	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-SON-07	MR. M. MWAMPIMBE	Male	SONGWE	37	BOX 29, KAKOLIYA	N/A	8928096	598972		8	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-SON-08	MRS. I. KASEGHE	Female	SONGWE	N/A	BOX 29, KAKOLIYA	N/A	8928010	598898		4	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-SON-09	MRS. E. MUKAMBA	Female	SONGWE	25	BOX 29, KAKOLIYA	N/A	8927873	598706		5	YES	NO	NO	NO	NO	NO	N/A	N/A

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	How long have you lived at this place (Yrs)	Education Attainment	Information about House/Shop				How often they experience flood that require evacuation	Time of the year when floods normally happens (yr/month/day)	Yr of Largest Flood	How long does water log at their place
						Size of the House / Shop Area		Material Used to Construct Walls of the					
						Total plot Including Garden	House, Ground Floor (Excluding floor)	Choose Options	Other				
sq.m	sq.m												
FLD-RUK-21	MRS. D. MWALWENI	Female	RORTH RUKURU	More than 40	None	0.1	10	Brick and Earth Mortar	N/A	Every 2 Yrs	March, April	2010	1 week
FLD-RUK-22	MRS. A. MBOMA	Female	NORTH RUKURU	1 to 10	Primary	0.1	10	Brick and Earth Mortar	N/A	None	March and April	n/a	n/a
FLD-RUK-23	MRS. Q. GONDWE	Female	NORTH RUKURU	11 to 20	Primary	0.2	10	Bamboo/Straw	earth mortar	None	March	2011	3 weeks
FLD-LIF-01	MR. T. DICKSON	Male	LIFIDZI	1 to 10	None	LESS THAN 0.1	10.5	Brick and Earth Mortar	N/A	Every Yr	JANUARY	2011	2 DAYS
FLD-RUK-02	MR. A. KAMBANI	Male	LIFIDZI	11 to 20	None	0.1	10	Brick and Earth Mortar	N/A	Every Yr	MARCH, APRIL	20,102,011	4 DAYS
FLD-LIF-03	MR. D. BWANALI	Male	LIFIDZI	11 to 20	Primary	0.2	22	Brick/Cement	N/A	Every Yr	FEBRUARY, MARCH	2005	3 MONTHS
FLD-LIF-04	MR. S. NDUWERE KANJEZA	Male	LIFIDZI	More than 40	Primary	0.8	56	Brick/Cement	N/A	Every Yr	December, March, February	2011, 2012	1 day
FLD-LIF-05	MR. C. CHILOPOLA	Male	LIFIDZI	21 to 30	Primary	0.2	63	Brick and Earth Mortar	N/A	Every Yr	March, December	201,020,112,012	1 week
FLD-LIF-06	MR. N. MPINGANJIRA	Male	LIFIDZI	More than 40		0.2	400	Brick and Earth Mortar	N/A	Every Yr	MARCH	19,712,011	1 WEEK
FLD-SON-01	MR. S. MWAKIKUNGA	Male	SONGWE	More than 40	Primary	0.8	32	Brick and Earth Mortar	N/A	Every Yr	March and April	2,007	3 days
FLD-SON-01	MRS. MWAKAIRA	Female	SONGWE	11 to 20	Primary	1	304	Brick and Earth Mortar	N/A	Every Yr	March, April	1989, 1999	2 WEEKS
FLD-SON-03	MRS. MASALADEMBWA	Female	SONGWE	1 to 10	Primary	1.2	428	Brick and Earth Mortar	N/A	Every Yr	MARCH, APRIL	1989, 1999	2 WEEKS
FLD-SON-04	MRS. MWASONGERA	Female	SONGWE	21 to 30	Secondary	0.8	504	Brick and Earth Mortar	N/A	Every Yr	March, April	1989, 1999	2 WEEKS
FLD-SON-05	MR. M. MWANTENDE	Male	SONGWE	31 to 40	Secondary	0.2	918	Brick and Earth Mortar	N/A	Every 4Yrs	March, April	1998, 2010	2 months
FLD-SON-06	MR. M. MWAKA	Male	SONGWE	1 to 10	Primary	0.2	10	Bamboo/Straw	earth mortar	Every 4Yrs	March, April	2010	1 day
FLD-SON-07	MR. M. MWAMPIMBE	Male	SONGWE	11 to 20	Primary	0.8	162	Bamboo/Straw	N/A	Every Yr	March And April	2009, 2010	1 month
FLD-SON-08	MRS. I. KASEGHE	Female	SONGWE	1 to 10	None	0.2	32	Brick and Earth Mortar	N/A	Every Yr	March, April	2011, 2012	5 days
FLD-SON-09	MRS. E. MUKAMBA	Female	SONGWE	11 to 20	Primary	0.2	10	Bamboo/Straw	EArth mortar	Every Yr	March, April	2010	3 months

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Maximum inundation depth at their home	Speed of the Hazard	Source of Flooding Water		Story about Flood hazard	Did the community know about about Flood Occurance?	
						Choose Option	Other (Pls Specify)		Yes or No	If Yes How did they know
FLD-RUK-21	MRS. D. MWALWENI	Female	RORTH RUKURU	0.8m	Fast	River	Duct or Ditch	Flooding happened because of heavy rainfall in the area. However their houses were not affected, but there were some people who were greatly affected. They had nothing to eat because their food was damaged	No	n/a
FLD-RUK-22	MRS. A. MBOMA	Female	NORTH RUKURU	0.9M	Fast	River	n/a	They had a continuous rainfall and it was heavy water flooding from north RUKURU to their place, the floods damaged properties, both inside and outside the house, the floods also damaged crops in the field		n/a
FLD-RUK-23	MRS. Q. GONDWE	Female	NORTH RUKURU	0.5M	Fast	River	n/a	One night they had a heavy rainfall, the following morning they realised their crops had been taken by floods. There was hunger this year, children were affected by malnutrition	Yes	Their field is close to Sere river and they notice the waters in the field to know that it will flood
FLD-LIF-01	MR. T. DICKSON	Male	LIFIDZI	1M	Fast	River	n/a	Lifidzi received a lot of water from lilongwe river, then they had floods. It was dangerous, people could not move to school, market or hospitals.	No	n/a
FLD-RUK-02	MR. A. KAMBANI	Male	LIFIDZI	1.2M	Fast	River	n/a	It was at night, we heard the sound of water and then discovered that water was entering the house. Our livestock died due to suffocation	No	n/a
FLD-LIF-03	MR. D. BWANALI	Male	LIFIDZI	1M	Fast	River	n/a	They had a heavy rainfall which lead to flooding, there were trees, sharp objects coming from the river to their surrounding. They left their land to a safe place	No	n/a
FLD-LIF-04	MR. S. NDUWERE KANJEZA	Male	LIFIDZI	0.5m	Fast	River	n/a	It was a bad experience, it started at night when they were fast asleep, floods came with tree logs and other sharp objects, including snakes.	Yes	They heard the sound of water
FLD-LIF-05	MR. C. CHILOPOLA	Male	LIFIDZI	1m	Fast	River	n/a	They experienced heavy flooding with trees and sharp objects, there were also snakes coming around the compound, people lost their lives. Some people failed to vacate their houses, they were forced to live without food for some days since everything was taken by water.	No	no
FLD-LIF-06	MR. N. MPINGANJIRA	Male	LIFIDZI	1.5M	Fast	River	N/A	things got worse because the river is very close to the village, the whole area was filled with water, they lost most of their things as they were trying to escape	Yes	when there is heavy rainfall at the mountain, they notice waters coming around with a specific type of soil
FLD-SON-01	MR. S. MWAKIKUNGA	Male	SONGWE		1.5 Fast	River	n/a	Water started raching their compounds after heavy rains which caused songwe to flood	No	n/a
FLD-SON-01	MRS. MWAKAIRA	Female	SONGWE	1M	Fast	River	n/a	it is always dangerous as the place is affected by floods each year, they do not even keep expensive things because they knw at some point they will lose their property. They got warning so late that they did not manage to save most of their belongings	Yes	neighbors started shouting
FLD-SON-03	MRS. MASALADEMBWA	Female	SONGWE	1M	Fast	River	n/a	it was a heavy and fast flooding, the guardian is very old with so many children, they had no time to prepare things, they just left without getting anything, flooding came with so many dangerous things ranging from snakes to tree logs.	Yes	they heard it on the radio and from neighbours
FLD-SON-04	MRS. MWASONGERA	Female	SONGWE	1m	Fast	River	n/a	it happened so fast and at night, it was confusing, they just heard the sound of water few minutes before its occurrence, this made then leave everything behind and save their lives	Yes	They stay put in the month of march and april, they also notice the waters near their home and that acts as a warning
FLD-SON-05	MR. M. MWANTENDE	Male	SONGWE	1m	Fast	River	n/a	they received heavy rainfall, it started late in the morning, for three days, then floods came with a huge noise and it was so fast that they did not take anything with them	No	n/a
FLD-SON-06	MR. M. MWAKA	Male	SONGWE	1m	Fast	River	n/a	They had floods after a heavy rain fall, the floods started at night, they just heard the sound of water and then realised it was flooding	Yes	they had rain for 3 days
FLD-SON-07	MR. M. MWAMPIMBE	Male	SONGWE	1m	Fast	River	n/a	it was heavy flooding, they did not have time to prepare, as a result they lost everything they had	Yes	they heard it on the radio and from neighbours
FLD-SON-08	MRS. I. KASEGHE	Female	SONGWE	1m	Fast	River	n/a	they received heavy rainfall, it started late in the morning, for three days, then floods came with a huge noise and it was so fast that they did not take anything with them	No	n/a
FLD-SON-09	MRS. E. MUKAMBA	Female	SONGWE	1m	Fast	River	n/a	they had heavy rainfall for three days, then they had heavy floods, they even used canoes to go to a safe side, they could not manage moving to the other side as it is a long distance.	No	n/a

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	How many days /months did it take before the hazard occurred	What happened when the flood occurred	Forces
						What was affected and by what?
FLD-RUK-21	MRS. D. MWALWENI	Female	RORTH RUKURU	n/a	There was water everywhere, it was difficult for people to perform their duties	people were affected by water, they could not perform their duties, they stayed for some days without eating
FLD-RUK-22	MRS. A. MBOMA	Female	NORTH RUKURU	n/a	people did not eat for some days as the whole place was filled with water	People were affected greatly, they could not move to school, market, hospital or farms. There was disease outbreak as well
FLD-RUK-23	MRS. Q. GONDWE	Female	NORTH RUKURU	n/a	Crop were destroyed by running water and water logging	crops died due to water logging and some taken by running water
FLD-LIF-01	MR. T. DICKSON	Male	LIFIDZI	n/a	the whole community was surrounded by water, people left their places to a safer place for a fear of being attacked by the things that come along with floods(snakes, logs)	Crops by running water, people by diseases and hunger
FLD-RUK-02	MR. A. KAMBANI	Male	LIFIDZI	n/a	total mess because the whole community was in water, they could not perform their duties	livestock drowned, crops taken by water and affected by water logging. People were also affected by water, it was difficult for them to go to work, cook because the whole place was in water
FLD-LIF-03	MR. D. BWANALI	Male	LIFIDZI	n/a	They left the place waiting for it to dry	crops were affected by running water, livestock drowned, people got diseases
FLD-LIF-04	MR. S. NDUWERE KANJEZA	Male	LIFIDZI	12 hours	there were diseases, people lost their property, including livestock and stored food, houses were damaged	crops were affected by water, houses affected by running water, people got diseases
FLD-LIF-05	MR. C. CHILOPOLA	Male	LIFIDZI	n/a	farm crops were damaged, people got diseases, livestock were taken by running water and some drowned	people were affected by diseases, crops and livestock by running water.
FLD-LIF-06	MR. N. MPINGANJIRA	Male	LIFIDZI	1 day	crops damaged by water, diseases, livestock drowned	crops, people and livestock were affected by running water, there were diseases
FLD-SON-01	MR. S. MWAKIKUNGA	Male	SONGWE	n/a	they left for an evacuation center	crops by running water, people by diseases and hunger
FLD-SON-01	MRS. MWAKAIRA	Female	SONGWE	few min before floods	they lost their crops in the field, their food which was stores was also damaged	crops were affected by water, houses were damaged and livestock drowned
FLD-SON-03	MRS. MASALADEMBWA	Female	SONGWE	1 week	crops and livestock got damaged by running water	people were affected by diseases, crops and livestock by running water.
FLD-SON-04	MRS. MWASONGERA	Female	SONGWE	1 week	people left the place to a safe side, they lost their crops and other properties, got diseases	crops were destroyed by water, food damaged by water, there was disease outbreak
FLD-SON-05	MR. M. MWANTENDE	Male	SONGWE	n/a	people left the village to a neighbour village(higher ground), there was hunger in the village because everything was taken by water	crops died due to water logging and some taken by running water
FLD-SON-06	MR. M. MWAKA	Male	SONGWE	2 days	crops were destroyed by water, both running water and water logging, there was disease outbreak, they had no food	people were affected by diseases, crops and livestock by running water.
FLD-SON-07	MR. M. MWAMPIMBE	Male	SONGWE	1 week	people were dispersed, they lost their crops and their food was damaged, schools were closed since the place was used as an evacuation center	crops were destroyed by running water, houses damaged, and people got diseases
FLD-SON-08	MRS. I. KASEGHE	Female	SONGWE	n/a	there was hunger and diseases because water damaged their food and crops.	crops were damaged by running water, livestock drowned and there were diseases
FLD-SON-09	MRS. E. MUKAMBA	Female	SONGWE	n/a	crops were affected by running water and water logging, there was hunger in the village	people were affected by diseases and hunger

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Forces	What was the depth of evacuation?	Distance and Duration to Evacuation Centres		Did you get any alert about flood?	If yes, where did you get the information					
				Who were affected and How?		Length (m)	Duration (min)		Radio/TV	Neighbours	Police	Govt dept	Others (Specify)	
FLD-RUK-21	MRS. D. MWALWENI	Female	RORTH RUKURU	Hunger and diseases due to damage of stores food and multiplication of flies respectively	n/a	n/a	n/a	no	no	no	no	no	n/a	
FLD-RUK-22	MRS. A. MBOMA	Female	NORTH RUKURU	People got attacked by different diseases due to multiplication of flies including mosquitoes	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
FLD-RUK-23	MRS. Q. GONDWE	Female	NORTH RUKURU	People had nothing to eat as they lost all their crops and stored food	n/a	n/a	n/a	no	n/a	n/a	n/a	n/a	n/a	
FLD-LIF-01	MR. T. DICKSON	Male	LIFIDZI	people were affected by the waters, they could not perform their everyday duties and they were left with hunger as floods destroyed everything, both in the field and house	1m	n/a	30min	no	n/a	n/a	n/a	n/a	n/a	
FLD-RUK-02	MR. A. KAMBANI	Male	LIFIDZI	People got diseases due to water logging, they were also affected by hunger as they lost all their stored food		1.2	700	30	no	no	no	no	no	n/a
FLD-LIF-03	MR. D. BWANALI	Male	LIFIDZI	people got diseases due to water logging, they were also affected by hunger as they lost all their stored food	1m	2.5KM	3HOURS	N/A	NO	NO	NO	NO	N/A	
FLD-LIF-04	MR. S. NDUWERE KANJEZA	Male	LIFIDZI	houses damaged by water, people got diseases due to multiplication of flies, there was hunger because they lost all their food including crops in the field	0.5m		400	10	yes	no	yes	no	no	n/a
FLD-LIF-05	MR. C. CHILOPOLA	Male	LIFIDZI	people got malaria due to an increase in number of mosquitoes as the waters were acting like a bleeding place, they were also hunger stricken because flood got everything they had	1m		500	30	yes	no	yes	no	no	n/a
FLD-LIF-06	MR. N. MPINGANJIRA	Male	LIFIDZI	people had nothing to eat and they were hit buy diseases, all this because of the floods		1.5	300	5	yes	no	yes	no	no	n/a
FLD-SON-01	MR. S. MWAKIKUNGA	Male	SONGWE	People got diseases due to water logging, they were also affected by hunger as they lost all their stored food	1.1m	2.5KM	3 HOURS	YES	YES	NO	NO	NO	N/A	
FLD-SON-01	MRS. MWAKAIRA	Female	SONGWE	they had no food to eat, because of the displacement life was difficult, there were so many disease due to water logging	1m	4km	2 hours	yes	yes	yes	no	no	n/a	
FLD-SON-03	MRS. MASALADEMBWA	Female	SONGWE	People got diseases due to water logging, they were also affected by hunger as they lost all their stored food	1m	4km	2hours	yes	yes	yes	no	no	n/a	
FLD-SON-04	MRS. MWASONGERA	Female	SONGWE	so many people were affected, thy could not perform their duties, they got diseases and were left with hunger as they lost everything	1m	4km	2 hours	yes	yes	yes	no	no	n/a	
FLD-SON-05	MR. M. MWANTENDE	Male	SONGWE	people got different disease due to water logging and they were left with hunger because they had no food at home		1.5	350	10	no	no	no	no	no	n/a
FLD-SON-06	MR. M. MWAKA	Male	SONGWE	so many people were affected, thy could not perform their duties, they got diseases and were left with hunger as they lost everything	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	
FLD-SON-07	MR. M. MWAMPIMBE	Male	SONGWE	there was hunger because people had no food to eat, they got diseases due to water logging	1m	1km	1hour	yes	yes	yes	no	no	n/a	
FLD-SON-08	MRS. I. KASEGHE	Female	SONGWE	there were diseases and hunger as people lost both there stored food and crops in the field	1.2m	3km	3 hours	no	n/a	n/a	n/a	n/a	n/a	
FLD-SON-09	MRS. E. MUKAMBA	Female	SONGWE	there was hunger and diseases due to the damage of crops and multiplication of flies respectively		1.5	2km	3hours	no	no	no	no	no	n/a

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Did you know Evacuation Centres	Where did you evacuate during flood?	Duration at the Evacuation centre	Availability of Safe Storage System in the House	Money saved for eventuaities	Availability of Development facilitators for Early Warning Systems	How often do they come	Are villagers united during floods?	Is there an opportunity to strengthen houses for the poor	Whether belongings were taken during evacuation	Condition of road to evacuation centres
FLD-RUK-21	MRS. D. MWALWENI	Female	RORTH RUKURU	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
FLD-RUK-22	MRS. A. MBOMA	Female	NORTH RUKURU	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
FLD-RUK-23	MRS. Q. GONDWE	Female	NORTH RUKURU	n/a	n/a	n/a	n/a	no	no	n/a	no	yes	n/a	n/a
FLD-LIF-01	MR. T. DICKSON	Male	LIFIDZI	no	Naliomba primary School	3 days	yes	no	no	n/a	no	yes	no	bad
FLD-RUK-02	MR. A. KAMBANI	Male	LIFIDZI	no	Naliomba Clinic	2 weeks	no	no	no	n/a	yes	yes	no	bad
FLD-LIF-03	MR. D. BWANALI	Male	LIFIDZI	NO	Naliwomba primary school	3 months	no	yes	no	n/a	yes	yes	no	FAIR
FLD-LIF-04	MR. S. NDUWERE KANJEZA	Male	LIFIDZI	yes	Naliwomba Clinic	3 days	no	no	no	n/a	yes	yes	no	bad
FLD-LIF-05	MR. C. CHILOPOLA	Male	LIFIDZI	yes	Naliwomba primary school	3 days	no	no	no	n/a	yes	yes	no	worse
FLD-LIF-06	MR. N. MPINGANJIRA	Male	LIFIDZI	yes	Naliwomba Clinic	2 weeks	no	no	no	n/a	yes	yes	no	bad
FLD-SON-01	MR. S. MWAKIKUNGA	Male	SONGWE	NO	Primary School	3 days	yes	yes	yes	1/yr	yes	no	no	worse
FLD-SON-01	MRS. MWAKAIRA	Female	SONGWE	yes	Yembe primary school	2 weeks	no	no	no	n/a	no	yes	no	worse
FLD-SON-03	MRS. MASALADEMBWA	Female	SONGWE	yes	yembe primary school	2 weeks	no	no	no	n/a	yes	no	no	worse
FLD-SON-04	MRS. MWASONGERA	Female	SONGWE	yes	yembe primary school	2 weeks	no	no	no	n/a	no	yes	no	worse
FLD-SON-05	MR. M. MWANTENDE	Male	SONGWE	no	neighbour village	1month	no	no	no	n/a	no	no	no	worse
FLD-SON-06	MR. M. MWAKA	Male	SONGWE	n/a	n/a	n/a	yes	yes	no	n/a	yes	no	n/a	n/a
FLD-SON-07	MR. M. MWAMPIMBE	Male	SONGWE	yes	yembe primary school	3 weeks	no	no	no	n/a	no	yes	no	worse
FLD-SON-08	MRS. I. KASEGHE	Female	SONGWE	no	Ighembe	3 months	yes	yes	no	n/a	no	no	no	worse
FLD-SON-09	MRS. E. MUKAMBA	Female	SONGWE	no	Primary School	2 weeks	yes	no	no	n/a	no	no	no	worse

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Frequency of maintaining access roads	Whether quality water and power is available at the evacuation centres	Is there safe shelter for livestock	Costs of Direct Damage in the Largest Flood (MK)					Major Diseases during flood					Major Challenges related to Gender
							House	Agricultural	Property	Other (specify)	Total Damage	Typhoid	Dysentery	Cholera	Malaria	Others (Pls Specify)	Discrimination
FLD-RUK-21	MRS. D. MWALWENI	Female	RORTH RUKURU	n/a	n/a	n/a	n/a	n/a	N/A	n/a	n/a	no	yes	YES	YES	n/a	no
FLD-RUK-22	MRS. A. MBOMA	Female	NORTH RUKURU	n/a	n/a	n/a	3,000MK	15,000MK	5,000MK	10,000MK (CHICKENS)	33,000MK	NO	yes	NO	YES	N/A	N/A
FLD-RUK-23	MRS. Q. GONDWE	Female	NORTH RUKURU	n/a	n/a	n/a	n/a	150,000MK	n/a	n/a	150,000MK	no	no	no	yes	N/A	no
FLD-LIF-01	MR. T. DICKSON	Male	LIFIDZI	1/yr	yes	no	2,000MK	20,500MK	8,000MK	N/A	21,000MK	NO	NO	YES	YES	N/A	NO
FLD-RUK-02	MR. A. KAMBANI	Male	LIFIDZI	1/yr	yes	no	20,000MK	30,000MK	15,000MK	7,000MK	72,000MK	NO	yes	NO	YES	N/A	NO
FLD-LIF-03	MR. D. BWANALI	Male	LIFIDZI	1/YR	NO	NO	15,000MK	85,000MK	10,000MK	5,000(LIVESTOCK)	115,000MK	NO	YES	YES	YES	N/A	NO
FLD-LIF-04	MR. S. NDUWERE KANJEZA	Male	LIFIDZI	1/yr	no	non	n/a	30,000MK	n/a	N/A	30,000MK	yes	no	yes	yes	N/A	no
FLD-LIF-05	MR. C. CHILOPOLA	Male	LIFIDZI	1/yr	no	no	n/a	200,000MK	8,000MK	N/A	208,000MK	YES	NO	YES	YES	N/A	NO
FLD-LIF-06	MR. N. MPINGANJIRA	Male	LIFIDZI	1/yr	no	no	n/a	200,000MK	50,000MK	N/A	250,000MK	yes	no	yes	yes	N/A	no
FLD-SON-01	MR. S. MWAKIKUNGA	Male	SONGWE	1/yr	yes	yes	10,000mk	n/a	10,000mk	N/A	20,000mk	no	no	yes	yes	n/a	no
FLD-SON-01	MRS. MWAKAIRA	Female	SONGWE	1/yr	no	no	20,000mk	90,000mk	30,000mk	N/A	140,000mk	yes	no	yes	yes	N/A	no
FLD-SON-03	MRS. MASALADEMBWA	Female	SONGWE	2/yr	no	no	15,000mk	150,000mk	40,000mk	N/A	205,000mk	yes	no	yes	yes	N/A	no
FLD-SON-04	MRS. MWASONGERA	Female	SONGWE	2/yr	no	no	10,000mk	240,000mk	60,000mk	150,000 (livestock)	460,000mk	yes	no	yes	yes	N/A	no
FLD-SON-05	MR. M. MWANTENDE	Male	SONGWE	1/yr	no	no	40,000mk	300,000mk	20,000mk	10,000mk (livestock)	370,000mk	no	yes	yes	yes	N/A	no
FLD-SON-06	MR. M. MWAKA	Male	SONGWE	n/a	n/a	n/a	n/a	48,000mk	n/a	n/a	48,000mk	no	no	yes	yes	n/a	no
FLD-SON-07	MR. M. MWAMPIMBE	Male	SONGWE	1/yr	no	no	10,000mk	225,000mk	40,000mk	n/a	275,000mk	yes	no	yes	yes	n/a	no
FLD-SON-08	MRS. I. KASEGHE	Female	SONGWE	4/yr	no	no	30,000mk	280,000	80,000mk	200,000 mk (livestock)	560,000mk	no	yes	yes	yes	N/A	yes
FLD-SON-09	MRS. E. MUKAMBA	Female	SONGWE	1/yr	yes	yes	5,000mk	50,000	n/a	15,000 (chickens)	70,000mk	no	yes	no	yes	n/a	no

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Major Challenges related to Gender During Evacuation			Any Reasons for not shifting to safe places	Interviewer		
				Violence	Hard Labour	Others (Pls Specify)		Date	Name	Witness (Name)
FLD-RUK-21	MRS. D. MWALWENI	Female	RORTH RUKURU	no	YES	N/A	They are used to the place, they do not have any other place to stay	21/11/2012	WEMA CHIUMIA	
FLD-RUK-22	MRS. A. MBOMA	Female	NORTH RUKURU	N/A	YES	N/A	They can not afford to buy a new land, both for the house and cultivation	21/11/2012	WEMA CHIUMIA	
FLD-RUK-23	MRS. Q. GONDWE	Female	NORTH RUKURU	no	yes	N/A	They practice farming at this place, they can not manage to buy another land	20/11/2012	WEMA CHIUMIA	
FLD-LIF-01	MR. T. DICKSON	Male	LIFIDZI	NO	NO	NO	They do not money to buy another land	23/11/2012	WEMA CHIUMIA	
FLD-RUK-02	MR. A. KAMBANI	Male	LIFIDZI	NO	YES	N/A	IT'S THE LAND THEIR PARENTS LEFT, THYE DO NOT HAVE MONEY TO BUY A NEW LAND	23/11/2012	WEMA CHIUMIA	
FLD-LIF-03	MR. D. BWANALI	Male	LIFIDZI	NO	NO	N/A	THEY DO NOT HAVE ENOUGH MONEY TO BUILD ANOTHER HOUSE	23/11/2012	WEMA CHIUMIA	
FLD-LIF-04	MR. S. NDUWERE KANJEZA	Male	LIFIDZI	no	no	n/a	they gave up relocating due to old age, they can not find a new place	23/11/2012	WEMA CHIUMIA	
FLD-LIF-05	MR. C. CHILOPOLA	Male	LIFIDZI	NO	NO	N/A	THEY DO NOT WANT TO LEAVE THEIR VILLAGE	23/11/2012	WEMA CHIUMIA	
FLD-LIF-06	MR. N. MPINGANJIRA	Male	LIFIDZI	no	no	n/a	they invested a lot on the house, they can not manage moving without getting back the money they invested (selling the house)	23/11/2012	WEMA CHIUMIA	
FLD-SON-01	MR. S. MWAKIKUNGA	Male	SONGWE	no	no	n/a	it's the place their parents left them and they are used to it	19/11/2012	WEMA CHIUMIA	
FLD-SON-01	MRS. MWAKAIRA	Female	SONGWE	no	no	n/a	they are settled, the village acts as their identity because they have been there for so long	19/11/2012	WEMA CHIUMIA	
FLD-SON-03	MRS. MASALADEMBWA	Female	SONGWE	no	no	n/a	They are used to the place, they do not have any other place to stay	19/11/2012	WEMA CHIUMIA	
FLD-SON-04	MRS. MWASONGERA	Female	SONGWE	no	no	n/a	they are used to the place, its their village	19/11/2012	WEMA CHIUMIA	
FLD-SON-05	MR. M. MWANTENDE	Male	SONGWE	no	no	n/a	The place is fertile, they grow rice after floods, they get income from rice selling	19/11/2012	WEMA CHIUMIA	
FLD-SON-06	MR. M. MWAKA	Male	SONGWE	no	no	n/a	they are used to the place, they have fruits around and cultivation land	19/11/2012	WEMA CHIUMIA	
FLD-SON-07	MR. M. MWAMPIMBE	Male	SONGWE	no	no	n/a	they do not have money to buy a new land	19/11/2012	WEMA CHIUMIA	
FLD-SON-08	MRS. I. KASEGHE	Female	SONGWE	no	yes	n/a	it's the place their parents left them and they are used to it	19/11/2012	WEMA CHIUMIA	
FLD-SON-09	MRS. E. MUKAMBA	Female	SONGWE	no	yes	n/a	the place has fertile soil	19/11/2012	WEMA CHIUMIA	

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Age	Address	Tel	Location			Family Size	Source of Income							
							GPS (Coordinates)				Farming	Kiosk	Fishing	Permanent Work	Temporary Work	External Assistance		Other
							Latitude	Longitude	Altitude (m)							Money	If Yes, Specify	
FLD-SON-10	MR. MWAMBAMBA	Male	SONGWE	56	BOX 29, KAPOLO	N/A	8928151	599074		11	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-RUO-01	MR. M. BEKA	Male	RUO RIVER	54	BOX 73, MUONA	881550217	8176444	7229909	-144	9	YES	NO	YES	NO	NO	NO	N/A	N/A
FLD-RUO-02	MR. NDATOPA	Male	RUO RIVER	75	BOX 29, MUONA	N/A	8176935	733675	-14	9	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-RUO-03	MRS. THOMSON	Female	RUO RIVER	N/A	BOX 29, MUONA	888230661	8176742	733679	-6	5	YES	YES	NO	NO	NO	NO	NO	N/A
FLD-RUO-04	MRS. E. NOTA	Female	RUO RIVER	19	BOX 29, MUONA	N/A	8173890	734244	-16	4	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-RUO-05	MR. E. KADAKOLA	Male	RUO RIVER	80	BOX 29, MUONA	N/A	8176750	733655	-6	7	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-RUO-06	MR. C. WISMAN	Male	RUO RIVER	30	BOX 29, MUONA	994404772	8451590	585498	14	5	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-RUO-07	MR. R. PIASI	Male	RUO RIVER	37	BOX 29, MUONA	884245864	8451590	585498	14	5	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-RUO-08	MR. M. MOFFART	Male	RUO RIVER	N/A	BOX 29, MUONA	N/A	8451590	585498	14	4	YES	NO	NONO	NO	NO	NO	N/A	N/A
FLD-RUO-09	MR. G. JOSSAM	Male	RUO RIVER	70	BOX 29, MUONA	N/A	8451590	585498	16	9	YES	YES	NO	NO	NO	NO	NO	N/A
FLDLRUO-10	MR. O. MANUEL	Male	RUO RIVER	82	Box 18, Chikonje	884240764	8451590	0585498/0996416969	20	6	yes	no	no	no	no	no	N/A	N/A
FLD-RUO-11	MR. E. ELIA	Female	RUO RIVER	50	BOX 29, MUONA	882866864	8176671	733702	-582	5	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-RUO-12	MR. C. SITENARA	Male	RUO RIVER	35	BOX 73, MUONA	881138010	8176510	729818	-169	6	YES	YES	YES	NO	NO	NO	N/A	N/A
FLD-RUO-13	MR. F. KENASON	Male	RUO RIVER	26	BOX 73, MUONA	884251420	8176533	729720	-80	6	YES	NO	YES	NO	NO	NO	N/A	N/A
FLD-RUO-14	MRS. K. NOWA	Female	RUO RIVER	35	BOX 29, MUONA	884303960	8451590	585498	20	8	YES	YES	NO	NO	NO	NO	N/A	N/A
FLD-RUO-15	MRS. ABITI SAIDI	Female	RUO RIVER	45	BOX 18, Chikonje	N/A	8451590	585498	21	9	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-RUO-16	MRS. C. JANUARY		RUO RIVER	47	BOX 29, MUONA	997558040	8451590	585498	16	3	YES	NO	NO	NO	NO	NO	N/A	N/A
FLD-RUO-17	MR. D. THOMSON	Male	RUO RIVER	85	BOX 29, MUONA	N/A	8451590	585498	13	7	YES	NO	NO	NO	NO	NO	NO	NO
FLD-RUO-18	MR. M. SAM	Male	RUO RIVER	50	BOX 29, MUONA	881679782	8451590	585498	15	10	YES	NO	NO	NO	NO	NO	YES	AFRICAN DOCTOR

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	How long have you lived at this place (Yrs)	Education Attainment	Information about House/Shop				How often they experience flood that require evacuation	Time of the year when floods normally happens (yr/month/day)	Yr of Largest Flood	How long does water log at their place
						Size of the House / Shop Area		Material Used to Construct Walls of the					
						Total plot Including Garden	House, Ground Floor (Excluding floor)	Choose Options	Other				
sq.m	sq.m												
FLD-SON-10	MR. MWAMBAMBA	Male	SONGWE	21 to 30	Primary	0.8	600	Brick and Earth Mortar	N/A	Every Yr	March, April	2009, 2010	1 month
FLD-RUO-01	MR. M. BEKA	Male	RUO RIVER	11 to 20	Primary	0.4	30	Brick and Earth Mortar	N/A	Every Yr	January and February	1989, 2012	5days
FLD-RUO-02	MR. NDATOPA	Male	RUO RIVER		Primary	0.2	32	Brick/Cement	N/A	Every Yr	JANUARY, FEBRUARY, MARCH	2012	1 DAY
FLD-RUO-03	MRS. THOMSON	Female	RUO RIVER	31 to 40	Primary	0.2	50	Brick and Earth Mortar	N/A	Every Yr	January, February, March	2012	4 days
FLD-RUO-04	MRS. E. NOTA	Female	RUO RIVER	1 to 10	Primary	0.4	40	Brick and Earth Mortar	N/A	Every Yr	JANUARY, FEBRUARY, MARCH	2012	4 days
FLD-RUO-05	MR. E. KADAKOLA	Male	RUO RIVER	More than 40	None	0.8	40	Brick and Earth Mortar	N/A	Every Yr	JANUARY, FEBRUARY, MARCH	2012	2 DAYS
FLD-RUO-06	MR. C. WISMAN	Male	RUO RIVER	21 to 30	Primary	0.4	56	Brick and Earth Mortar	N/A	Every Yr	JANUARY, FEBRUARY, MARCH	2012	1 day
FLD-RUO-07	MR. R. PIASI	Male	RUO RIVER	21 to 30	Primary	0.2	56	Brick and Earth Mortar	N/A	Every Yr	JANUARY, FEBRUARY, MARCH	2012	1 DAY
FLD-RUO-08	MR. M. MOFFART	Male	RUO RIVER	1 to 10	None	0.2	56	Brick and Earth Mortar	N/A	Every Yr	JANUARY, FEBRUARY, MARCH	2012	5 DAYS
FLD-RUO-09	MR. G. JOSSAM	Male	RUO RIVER	1 to 10	Primary	6	20	Brick and Earth Mortar	N/A	Every Yr	JANUARY, FEBRUARY, MARCH	2012	1 DAY
FLDLRUO-10	MR. O. MANUEL	Male	RUO RIVER	More than 40	None	0.6	41.25	Brick and Earth Mortar	N/A	Every Yr	JANUARY, FEBRUARY, MARCH	2012	1 day
FLD-RUO-11	MR. E. ELIA	Female	RUO RIVER	31 to 40	None	0.2	20	Brick and Earth Mortar	N/A	Every Yr	JANUARY, FEBRUARY, MARCH	2012	1 Day
FLD-RUO-12	MR. C. SITENARA	Male	RUO RIVER	31 to 40	Secondary	0.2	39	Brick and Earth Mortar	N/A	Every Yr	JANUARY, FEBRUARY, MARCH	198,919,972,012	2
FLD-RUO-13	MR. F. KENASON	Male	RUO RIVER	1 to 10	Primary	0.2	28	Brick and Earth Mortar	N/A	Every Yr	JANUARY, FEBRUARY, MARCH	19,972,012	3 days
FLD-RUO-14	MRS. K. NOWA	Female	RUO RIVER	11 to 20	Primary	0.8	35	Brick/Cement	N/A	Every Yr	JANUARY, FEBRUARY, MARCH	2012	5days
FLD-RUO-15	MRS. ABITI SAIDI	Female	RUO RIVER	11 to 20	Primary	0.2	20	Brick and Earth Mortar	N/A	Every Yr	JANUARY, FEBRUARY, MARCH	2012	1 day
FLD-RUO-16	MRS. C. JANUARY		RUO RIVER	More than 40	None	0.4	56	Brick and Earth Mortar	n/a	Every Yr	JANUARY, FEBRUARY, MARCH	2012	3 DAYS
FLD-RUO-17	MR. D. THOMSON	Male	RUO RIVER	More than 40	None	0.4	70	Brick/Cement	N/A	Every Yr	JANUARY, FEBRUARY, MARCH	2012	1 day
FLD-RUO-18	MR. M. SAM	Male	RUO RIVER	1 to 10	Primary	0.2	42	Brick and Earth Mortar	N/A	Every Yr	JANUARY, FEBRUARY, MARCH	2012	3 DAYS

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Maximum inundation depth at their home	Speed of the Hazard	Source of Flooding Water		Story about Flood hazard	Did the community know about about Flood Occurance?	
						Choose Option	Other (Pls Specify)		Yes or No	If Yes How did they know
FLD-SON-10	MR. MWAMBAMBA	Male	SONGWE	1/2m	Fast	River	n/a	it was heavy flooding because the village is surrounded by songwe river, he however said his house is at a safer side, he is not greatly affected by the floods except his field.	Yes	Radio
FLD-RUO-01	MR. M. BEKA	Male	RUO RIVER	1m	Slow	River	Chikale River	It was a slow flood except for 2012, the place was filled with water, not so bad though. Floods came with anakes, crocodiles and hippos, they lost two people	Yes	Village civil protection committee, Radio, they use whistles, drums to inform others
FLD-RUO-02	MR. NDATAPOA	Male	RUO RIVER	1/2M	Fast	River		the flood was fast and heavy but it did not take long to stop, the only problem they had that it came with dangerous things, sharp objects, snakes, crocodiles and tree logs, it affected most houses because the houses are not strong enough	Yes	Village civil protection committee and Radio
FLD-RUO-03	MRS. THOMSON	Female	RUO RIVER	1/2m	Fast	River	n/a	it happened so fast, they managed to save some of their belongings, as they were coming back to get other things they found water inside the house. It was dangerous as floods came with all sorts of things including snakes and crocodiles	Yes	Radio and village civil protection committee
FLD-RUO-04	MRS. E. NOTA	Female	RUO RIVER	1/2m	Fast	River	n/a	it happened at night when they were fast asleep, because of this they were forced to leave the place without anything, it was dangerous as the floods came with snakes and crocodiles	Yes	Village Civil protection Committee, radio and neighbours
FLD-RUO-05	MR. E. KADAKOLA	Male	RUO RIVER	1/2M	Fast	River	n/a	it was heavy flood, it affected areas surrounding the place, flood came with snakes and crocodiles, took away everything in its path including stored food and houses	Yes	Radio and village civil protection committee
FLD-RUO-06	MR. C. WISMAN	Male	RUO RIVER	1/2m	Fast	River	n/a	floods came from ruo river with crocodiles, tree logs and snakes. Part of the village is atleast protected by the tree grown around, they help to calm the floods however they usually receive fast flooding.	Yes	village civil protection committee
FLD-RUO-07	MR. R. PIASI	Male	RUO RIVER	1/2M	Fast	River	N/A	floods came from ruo river, they came with snakes and crocodiles. Children could not move to school, there were diseases, everything stop.	Yes	village civil protection committee
FLD-RUO-08	MR. M. MOFFART	Male	RUO RIVER	1.5M	Fast	River	N/A	things got worse because the river is very close to the village, the whole area was filled with water, they lost most of their things as they were trying to escape	Yes	They noticed heavy rains, radio, village civil protection committee
FLD-RUO-09	MR. G. JOSSAM	Male	RUO RIVER	1/2M	Fast	River	N/A	it was a fast and heavy flooding, people left the place, they lost most of their belongings	Yes	village civil protection committee, radi and neighbours
FLDLRUO-10	MR. O. MANUEL	Male	RUO RIVER	1/2m	Fast	River	n/a	it was heavy flooding but they managed to save most of their things	Yes	radio, village civil protection committee, neighbours
FLD-RUO-11	MR. E. ELIA	Female	RUO RIVER	1/4M	Fast	River	N/A	It was a fast and heavy flood, it did not take long to last, left great impact on property and crops in the field. It came with crocodiles and snakes	Yes	radio, village civil protection committee, neighbours
FLD-RUO-12	MR. C. SITENARA	Male	RUO RIVER	1/4M	Fast	River	n/a	it was a fast flood, with little water, it greatly affected the area especially crops, the flood came along with crocodiles and snakes	Yes	Radio, by observing the weather(when they receive a lot of rainfall), village civil protection committee
FLD-RUO-13	MR. F. KENASON	Male	RUO RIVER	1/2M	Fast	River	N/A	it was a heavy flood, it forced people to relocate for abot 2-3 months, the flood came with snakes and other dangerous things	Yes	village civil protection committee, radio, by observing the weather
FLD-RUO-14	MRS. K. NOWA	Female	RUO RIVER	1/2M	Fast	River	n/a	they did not know what to do as it was a heavy and fast flood, it came with crocodiles and snakes. The situation forced to vacate the village	Yes	radio, neighbour village, village civil protection committee
FLD-RUO-15	MRS. ABITI SAIDI	Female	RUO RIVER		2-Jan Fast	River	N/A	They did not move to other places, flooding did not affect their houses, however some dangerous animals came along with the floods, snakes and crocodiles	Yes	radio, village civil protection committee, neighbours
FLD-RUO-16	MRS. C. JANUARY		RUO RIVER		1.5 Fast	River	N/A	It was a heavy flood, markets and hospitals were closed, floods came with snakes and crocodiles	Yes	village civil protection committee
FLD-RUO-17	MR. D. THOMSON	Male	RUO RIVER	1M	Fast	River	N/A	floods came from ruo river, it happened so fast, it came with sharp logs, snakes and crocodiles	Yes	village civil protection committee
FLD-RUO-18	MR. M. SAM	Male	RUO RIVER	1M	Fast	River	N/A	it happened at night when they were fast asleep, because of this they were forced to leave the place without anything, it was dangerous as the floods came with snakes and crocodiles	Yes	there was heavy rainfall, village civil protection committee

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	How many days /months did it take before the hazard occurred	What happened when the flood occurred	Forces
						What was affected and by what?
FLD-SON-10	MR. MWAMBAMBA	Male	SONGWE	1 week	people were dispersed to differend places, they lost everything	they were affected by diseases and hunger
FLD-RUO-01	MR. M. BEKA	Male	RUO RIVER	2 days or few hours before actual flooding	people lived in fear, there were no school, markets and hospitals functioning, there were diseases all over the village	people, crops, livestock were affected by water
FLD-RUO-02	MR. NDATOPA	Male	RUO RIVER	2 days	people did not know what to do, they were left with no food, there was disease outbreak	crops and livestock were affected by running water
FLD-RUO-03	MRS. THOMSON	Female	RUO RIVER	2days	people were confused, they did not know where to go, they had nothing to eat, their houses were damaged, there was disease outbreak	people, crops and livestock were affected by running water
FLD-RUO-04	MRS. E. NOTA	Female	RUO RIVER	2 days	people left their houses, crops and houses were damaged, livestock taken by waters	people were affected, there was hunger in the village, there was disease outbreak because of the stagnant water
FLD-RUO-05	MR. E. KADAKOLA	Male	RUO RIVER	2 days	people left their houses, crops and houses were damaged, livestock taken by waters	people,crops and livestock were affected by running water. There was hunger and diseases
FLD-RUO-06	MR. C. WISMAN	Male	RUO RIVER	2 days	crops,livestock were damaged by water, there was disease outbreak, people left their homes to a safer side	people, crops and livestock were affected by running water
FLD-RUO-07	MR. R. PIASI	Male	RUO RIVER	2 days	people lost their livestock, houses were damaged, disease outbreak	crops, livestock were affected by running water
FLD-RUO-08	MR. M. MOFFART	Male	RUO RIVER	2 days	people left the community to other places, flooding brought diseases, snakes and crocodiles to the place, their livestock were killed, by both rain and crocodiles	crops, livestock and people were affected by runing water
FLD-RUO-09	MR. G. JOSSAM	Male	RUO RIVER	3 days	there were diseases, people lost their property, including livestock and stored food, houses were damaged	people were affected by diseases, crops by running water and animals by water (drowned)
FLDLRUO-10	MR. O. MANUEL	Male	RUO RIVER	2 days	crops were damaged, there was disease outbreak, some people lost their property	people were affected by diseases, crops damaged by water and animals drowned
FLD-RUO-11	MR. E. ELIA	Female	RUO RIVER	2 days	there was great confusion, people left their houses to a neighbour village and primary school	crops,livestock,people and property affected by running water
FLD-RUO-12	MR. C. SITENARA	Male	RUO RIVER	2	people left the place for some weeks, some were attacked by crocodiles	crops were damaged by running water, livestock drowned and there were diseases
FLD-RUO-13	MR. F. KENASON	Male	RUO RIVER	2	people were attacked by crocodiles and snakes, they all left the village to a safe place for some months	crops,livestock,people and property affected by running water
FLD-RUO-14	MRS. K. NOWA	Female	RUO RIVER	1 day	crops were damaged, livestock were taken by water, houses got damaged	crops, livestock and houses were affected by the flood
FLD-RUO-15	MRS. ABITI SAIDI	Female	RUO RIVER	2 days	crops were damaged, animals drowned	crops and livestock affected by water
FLD-RUO-16	MRS. C. JANUARY		RUO RIVER	2 days	houses and crops were damaged, there was disease outbreak	crops, houses were damaged by water
FLD-RUO-17	MR. D. THOMSON	Male	RUO RIVER	2 days	people lost their livestock and crops in the field	people were affected by diseases caused by floods, crops were damaged by water
FLD-RUO-18	MR. M. SAM	Male	RUO RIVER	2 days	people had no place to stay, animals were taken by water, there was disease outbreak in the village	people were affected by diseases, crops damaged by water and animals drowned

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Forces	What was the depth of evacuation?	Distance and Duration to Evacuation Centres		Did you get any alert about flood?	If yes, where did you get the information					
				Who were affected and How?		Length (m)	Duration (min)		Radio/TV	Neighbours	Police	Govt dept	Others (Specify)	
FLD-SON-10	MR. MWAMBAMBA	Male	SONGWE	there was hunger and diseases due to the damage of crops and multiplication of flies respectively	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
FLD-RUO-01	MR. M. BEKA	Male	RUO RIVER	people got diseases due to water logging	1/2m	150	5	yes	yes	yes	no	no	n/a	n/a
FLD-RUO-02	MR. NDATA	Male	RUO RIVER	people were affected by diseases and there was hunger because they did not have food in the house.	1/2m	100	10	yes	yes	yes	no	no	n/a	n/a
FLD-RUO-03	MRS. THOMSON	Female	RUO RIVER	so many people got diseases, this happened because the waters were a bleeding place for so many flies	1/2m	500	20	yes	yes	yes	no	no	village committee	n/a
FLD-RUO-04	MRS. E. NOTA	Female	RUO RIVER	people were affected, there was hunger in the village and disease outbreak, this happened because of the floods and stagnant water	1/2m	150	15	yes	yes	yes	no	no	village committee	n/a
FLD-RUO-05	MR. E. KADAKOLA	Male	RUO RIVER	there was hunger and diseases since all the food was taken by water, including crops in the field. Disease came because of stagnant water which acted as a bleeding place for mosquitoes	1/2m	400	10	yes	yes	yes	no	no	village committee	n/a
FLD-RUO-06	MR. C. WISMAN	Male	RUO RIVER	there was disease outbreak due to the stagnant waters, there was also hunger because people lost all their food	1/2m	100	3m	no	n/a	n/a	n/a	n/a	n/a	n/a
FLD-RUO-07	MR. R. PIASI	Male	RUO RIVER	people could not move to markets, schools and hospitals because of the water, there was also disease outbreak because the water acted like bleeding place for mosquitoes	1/2m	50	2	yes	yes	yes	no	no	n/a	n/a
FLD-RUO-08	MR. M. MOFFART	Male	RUO RIVER	people got diseases and there was hunger because of the crops being destroyed by water and water acting as a bleeding place for mosquitoes	1.5	1km	20	yes	yes	yes	no	no	village committee	n/a
FLD-RUO-09	MR. G. JOSSAM	Male	RUO RIVER	People were affected as they lost all their belonging, crops and even stored food, this resulted in hunger that victimized the whole village, there were also diseases due to multiplication of flies	1/2m	1km	20	yes	yes	yes	no	no	village committee	n/a
FLDLRUO-10	MR. O. MANUEL	Male	RUO RIVER	people got diseases due to stagnant water(bleeding place for flies), some people were also hit by hunger as they lost their crops and stored food	n/a	n/a	n/a	yes	yes	yes	no	no	n/a	n/a
FLD-RUO-11	MR. E. ELIA	Female	RUO RIVER	there was disease outbreak due to the stagnant waters, there was also hunger because people lost all their food	1/4m	700	20	yes	yes	yes	no	no	village committee	n/a
FLD-RUO-12	MR. C. SITENARA	Male	RUO RIVER	people were attacked by crocodiles, they got diseases (due to water logging)	1/2m	250	7	yes	yes	yes	no	no	village committee	n/a
FLD-RUO-13	MR. F. KENASON	Male	RUO RIVER	there was disease outbreak, so many people got malaria due to multiplication of diseases	2-Jan	200	7	yes	yes	yes	no	no	village committee	n/a
FLD-RUO-14	MRS. K. NOWA	Female	RUO RIVER	there was disease outbreak, people had nothing to eat	1/2m	10	2	yes	yes	yes	no	no	village committee	n/a
FLD-RUO-15	MRS. ABITI SAIDI	Female	RUO RIVER	there was disease outbreak and hunger	n/a	n/a	n/a	yes	yes	yes	no	no	village committee	n/a
FLD-RUO-16	MRS. C. JANUARY		RUO RIVER	there were diseases and hunger as people lost both their stored food and crops in the field	n/a	100	3	yes	no	yes	no	no	village committee	n/a
FLD-RUO-17	MR. D. THOMSON	Male	RUO RIVER	people were affected by diseases, stagnant water acted as a bleeding place for mosquitoes	n/a	300	9	yes	no	yes	no	no	n/a	n/a
FLD-RUO-18	MR. M. SAM	Male	RUO RIVER	so many people had malaria due to an increase of mosquitoes	1m	500	10	yes	yes	yes	no	no	n/a	n/a

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Did you know Evacuation Centres	Where did you evacuate during flood?	Duration at the Evacuation centre	Availability of Safe Storage System in the House	Money saved for eventuaities	Availability of Development facilitators for Early Warning Systems	How often do they come	Are villagers united during floods?	Is there an opportunity to strengthen houses for the poor	Whether belongings were taken during evacuation	Condition of road to evacuation centres
FLD-SON-10	MR. MWAMBAMBA	Male	SONGWE	n/a	n/a	n/a	no	no	no	n/a	no	yes	n/a	worse
FLD-RUO-01	MR. M. BEKA	Male	RUO RIVER	yes	God knows church	3 months	yes	no	yes	2/month	yes	yes	yes	worse
FLD-RUO-02	MR. NDATOPA	Male	RUO RIVER	yes	Chambuluka Village	2 days	yes	no	yes	1/month	yes	yes	no	bad
FLD-RUO-03	MRS. THOMSON	Female	RUO RIVER	yes	Chambuluka Village	4 days	yes	no	yes	1/month	yes	yes	no	bad
FLD-RUO-04	MRS. E. NOTA	Female	RUO RIVER	yes	Namiyala Primary School	4 days	no	yes	yes	1/month	yes	yes	no	bad
FLD-RUO-05	MR. E. KADAKOLA	Male	RUO RIVER	no	chilambula village	2 days	yes	no	yes	1/month	yes	yes	no	bad
FLD-RUO-06	MR. C. WISMAN	Male	RUO RIVER	yes	Ndabonera Camp	1 day	yes	no	yes	1/month	yes	yes	no	bad
FLD-RUO-07	MR. R. PIASI	Male	RUO RIVER	yes	Ndabonera Camp	1 day	yes	no	yes	1/month	yes	yes	no	bad
FLD-RUO-08	MR. M. MOFFART	Male	RUO RIVER	yes	Chikonje Primary School	4 days	yes	no	yes	1/month	yes	yes	no	Fair
FLD-RUO-09	MR. G. JOSSAM	Male	RUO RIVER	yes	Chikonje primaty School	3 days	yes	no	yes	1/month	yes	yes	yes	Fair
FLDLRUO-10	MR. O. MANUEL	Male	RUO RIVER	n/a	n/a	n/a	no	no	yes	1/yr	yes	yes	n/a	n/a
FLD-RUO-11	MR. E. ELIA	Female	RUO RIVER	yes	Chambuluka Village	4 days	no	no	yes	1/month	yes	yes	no	bad
FLD-RUO-12	MR. C. SITENARA	Male	RUO RIVER	yes	God knows church	3 months	yes	no	yes	2/month	yes	yes	yes	worse
FLD-RUO-13	MR. F. KENASON	Male	RUO RIVER	yes	God knows church	3 months	yes	no	yes	2/month	yes	yes	yes	worse
FLD-RUO-14	MRS. K. NOWA	Female	RUO RIVER	yes	Salvation Army Church	3	no	no	yes	1/month	yes	yes	no	FAIR
FLD-RUO-15	MRS. ABITI SAIDI	Female	RUO RIVER	n/a	n/a	n/a	no	no	yes	1/month	yes	yes	n/a	n/a
FLD-RUO-16	MRS. C. JANUARY		RUO RIVER	n/a	Salvation Army Church	3 days	yes	no	yes	1/month	yes	yes	no	FAIR
FLD-RUO-17	MR. D. THOMSON	Male	RUO RIVER	yes	Ndabonera Camp	n/a	yes	no	yes	1/month	yes	yes	n/a	bad
FLD-RUO-18	MR. M. SAM	Male	RUO RIVER	yes	Chikonje Primary School	3 days	yes	yes	yes	1/month	yes	yes	no	bad

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Frequency of maintaining access roads	Whether quality water and power is available at the evacuation centres	Is there safe shelter for livestock	Costs of Direct Damage in the Largest Flood (MK)					Major Diseases during flood					Major Challenges related to Gender
							House	Agricultural	Property	Other (specify)	Total Damage	Typhoid	Dysentery	Cholera	Malaria	Others (Pls Specify)	Discrimination
FLD-SON-10	MR. MWAMBAMBA	Male	SONGWE	2/yr	no	no	n/a	300,000mk	n/a	n/a	300,000mk	yes	no	yes	yes	n/a	no
FLD-RUO-01	MR. M. BEKA	Male	RUO RIVER	1/2yrs	no	yes	200,000mk	120,000mk	150,000mk	95,000mk (livestock)	565,000mk	no	no	YES	YES	N/A	yes
FLD-RUO-02	MR. NDATOPA	Male	RUO RIVER	1/yr	no	no	n/a	120,000mk	30,000mk	18,000mk	168,000mk	no	no	yes	yes	N/A	no
FLD-RUO-03	MRS. THOMSON	Female	RUO RIVER	1/yr	no	no	100,000mk	16,000mk	12,000mk	15,000mk (livestock)	143,000mk	no	no	yes	yes	n/a	no
FLD-RUO-04	MRS. E. NOTA	Female	RUO RIVER	1/yr	no	no	n/a	50,000mk	20,000mk	5,000mk (chickens)	75,000mk	yes	no	yes	yes	N/A	no
FLD-RUO-05	MR. E. KADAKOLA	Male	RUO RIVER	1/yr	no	no	n/a	75,000mk	N/A	20,000mk (livestock)	95,000mk	yes	no	yes	yes	N/A	no
FLD-RUO-06	MR. C. WISMAN	Male	RUO RIVER	1/yr	no	no	n/a	200,000mk	110,000mk	n/a	310,000	yes	no	yes	yes	N/A	n/a
FLD-RUO-07	MR. R. PIASI	Male	RUO RIVER	1/yr	no	no	n/a	150,000mk	250,000mk	n/a	400,000mk	yes	no	yes	yes	n/a	no
FLD-RUO-08	MR. M. MOFFART	Male	RUO RIVER	1/yr	no	no	30,000mk	12,000mk	16,000mk	15,000mk (livestock)	73,000mk	yes	no	yes	yes	N/A	no
FLD-RUO-09	MR. G. JOSSAM	Male	RUO RIVER	1/yr	no	no	8,500mk	30,000mk	8,000mk	22,000mk (livestock)	65,000mk	yes	no	yes	yes	n/a	no
FLDLRUO-10	MR. O. MANUEL	Male	RUO RIVER	n/a	n/a	n/a	n/a	70,000mk	n/a	n/a	70,000mk	yes	no	yes	yes	n/a	no
FLD-RUO-11	MR. E. ELIA	Female	RUO RIVER	1/yr	no	no	n/a	10,000mk	20,000mk	4,000mk (chickens)	34,000mk	yes	no	yes	yes	n/a	no
FLD-RUO-12	MR. C. SITENARA	Male	RUO RIVER	1/2yrs	no	yes	20,000mk	8,000mk	12,000mk	n/a	40,000mk	yes	no	yes	yes	n/a	yes
FLD-RUO-13	MR. F. KENASON	Male	RUO RIVER	1/2yrs	no	yes	5,000mk	15,000mk	10,000mk	4,000 (chickens)	34,000mk	yes	no	yes	yes	n/a	yes
FLD-RUO-14	MRS. K. NOWA	Female	RUO RIVER	1/yr	no	no	n/a	15,000mk	8,000mk	5,500mk (livestock)	27,500mk	yes	no	yes	yes	N/A	no
FLD-RUO-15	MRS. ABITI SAIDI	Female	RUO RIVER	n/a	n/a	n/a	n/a	20,000mk	n/a	n/a	20,000mk	yes	no	yes	yes	n/a	no
FLD-RUO-16	MRS. C. JANUARY		RUO RIVER	1/yr	no	no	n/a	100,000mk	70,000mk	n/a	170,000mk	yes	no	yes	yes	n/a	no
FLD-RUO-17	MR. D. THOMSON	Male	RUO RIVER	1/yr	no	no	n/a	50,000mk	n/a	n/a	50,000mk	YES	no	yes	yes	n/a	no
FLD-RUO-18	MR. M. SAM	Male	RUO RIVER	1/yr	no	no	n/a	200,000mk	150,000mk	120,000mk (livestock)	470,000mk	yes	no	YES	yes	n/a	yes

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Major Challenges related to Gender During Evacuation			Any Reasons for not shifting to safe places	Interviewer		
				Violence	Hard Labour	Others (Pls Specify)		Date	Name	Witness (Name)
FLD-SON-10	MR. MWAMBAMBA	Male	SONGWE	no	no	no	not affected greatly	19/11/2012	WEMA CHIUMIA	
FLD-RUO-01	MR. M. BEKA	Male	RUO RIVER	yes	yes	N/A	its their village, they have large farms close to the place	28/11/2012	WEMA CHIUMIA	
FLD-RUO-02	MR. NDATOPA	Male	RUO RIVER	no	no	no	they love their place, its their village they can not abandon it	28/11/2012	WEMA CHIUMIA	
FLD-RUO-03	MRS. THOMSON	Female	RUO RIVER	no	no	n/a	Its their village, the only place with safe drinking water and cultivation land	28/11/12	WEMA CHIUMIA	
FLD-RUO-04	MRS. E. NOTA	Female	RUO RIVER	no	no	N/A	the place is close to their farm and they do not have money to buy a new land	28/11/2012	WEMA CHIUMIA	
FLD-RUO-05	MR. E. KADAKOLA	Male	RUO RIVER	no	no	N/A	they do not have enough money to buy a new land	28/11/2012	WEMA CHIUMIA	
FLD-RUO-06	MR. C. WISMAN	Male	RUO RIVER	n/a	n/a	n/a	they do not have money to buy and build a new house	27/11/2012	WEMA CHIUMIA	
FLD-RUO-07	MR. R. PIASI	Male	RUO RIVER	no	no	n/a	they have farms around the village, the village acts as their identity, they do not have money to buy a new land	27/11/2012	WEMA CHIUMIA	
FLD-RUO-08	MR. M. MOFFART	Male	RUO RIVER	no	no	n/a	the soil is fertile	27/11/2012	WEMA CHIUMIA	
FLD-RUO-09	MR. G. JOSSAM	Male	RUO RIVER	no	no	n/a	they do not have money to buy a new land, they have farms close to their village and are settled	27/11/2012	WEMA CHIUMIA	
FLDLRUO-10	MR. O. MANUEL	Male	RUO RIVER	no	no	n/a	they do not have enough money to buy a new land	27/11/2012	WEMA CHIUMIA	
FLD-RUO-11	MR. E. ELIA	Female	RUO RIVER	no	no	no	they do not have money to buy a new land	28/11/2012	WEMA CHIUMIA	
FLD-RUO-12	MR. C. SITENARA	Male	RUO RIVER	yes	yes	n/a	they do not have enough money to buy a new land	28/11/2012	WEMA CHIUMIA	
FLD-RUO-13	MR. F. KENASON	Male	RUO RIVER	yes	yes	n/a	its their village and they are close to their farms	28/11/2012	WEMA CHIUMIA	
FLD-RUO-14	MRS. K. NOWA	Female	RUO RIVER	no	no	n/a	they do not have enough money to buy a new land	27/11/2012	WEMA CHIUMIA	
FLD-RUO-15	MRS. ABITI SAIDI	Female	RUO RIVER	no	no	n/a	they do not have enough money to buy a new land	27/11/2012	WEMA CHIUMIA	
FLD-RUO-16	MRS. C. JANUARY		RUO RIVER	no	no	n/a	they do not have money to buy a new land	27/11/2012	WEMA CHIUMIA	
FLD-RUO-17	MR. D. THOMSON	Male	RUO RIVER	no	no	n/a	the house is on a safe place, they are not greatly affected by water	27/11/2012	WEMA CHIUMIA	
FLD-RUO-18	MR. M. SAM	Male	RUO RIVER	yes	yes	n/a	they do not have enough money to buy a new land	27/11/2012	WEMA CHIUMIA	

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Age	Address	Tel	Location			Family Size	Source of Income								
							GPS (Coordinates)				Farming	Kiosk	Fishing	Permanent Work	Temporary Work	External Assistance		Other	
							Latitude	Longitude	Altitude (m)							Money	If Yes, Specify		
FLD-RUO-19	MR. N. CHIKONJE	Male	RUO RIVER	42	CHIKONJE SCHOOL	886858256	8174618	735254	22	7	YES	NO	NO	NO	NO	NO	NO	NO	NO
FLD-RUO-20	MR. M. LIKWERI	Male	RUO RIVER	51	CHIKONJE SCHOOL	N/A	817354	733989	23	4	YES	NO	NO	NO	NO	NO	NO	NO	NO
FLD-RUO-21	MR. G. KANCHERA	Male	RUO RIVER	86	NAMIYALA SCHOOL	N/A	8176803	733281	0	2	YES	NO	NO	NO	NO	NO	N/A	N/A	N/A
FLD-RUO-22	MR. A. KHASU	Male	RUO RIVER	68	NAMIYALA SCHOOL	991102930	8176847	733435	-14	6	YES	NO	NO	NO	NO	NO	N/A	N/A	N/A
FLD-RUO-23	MR. S. KONG'A	Male	RUO RIVER	57	NAMIYALA SCHOOL	N/A	8176817	733498	12	6	YES	NO	NO	NO	NO	NO	N/A	N/A	N/A
FLD-RUO-24	MR. F. NTANTHE	Male	RUO RIVER	35	NAMIYALA SCHOOL	882272764	8176902	733530	28	6	YES	NO	NO	NO	YES	NO	NO	NO	N/A
FLD-RUO-25	MRS. E. UNDERSON	Female	RUO RIVER	25	NAMIYALA SCHOOL	99666438	8176999	733413	8	5	YES	NO	NO	NO	YES	NO	N/A	N/A	N/A
FLD-RUO-31	MR. C. PATRICK	MALE	RUO	27	CHIKONJE SCHOOL	882109302	734691	8174893	17	6	YES				YES				
FLD-RUO-30	MR. Y.J. MASANKHO	MALE	RUO	42	C/O BOX 29 MUONA	888199098	734925	8174534	19	10	YES							TIMBER SAWING	
FLD-RUO-29	MRS.C. AUBREY	FEMALE	RUO	35	CHIKONJE SCHOOL		734737	8174723	16	7	YES								
FLD-RUO-28	MR. R. ULIRI	MALE	RUO	36	CHIKONJE SCHOOL	888010525	735254	8174618	20	5	YES								
FLD-RUO-27	S. USENI		RUO	46	CHIKALISCHOOL		729382	8176464	54	10	YES								
FLD-RUO-26	N. SALI	MALE	RUO	48	CHIKALI SCHOOL		729522	8176463	52	1	YES								
FLD-RUO-32	MRS. J. JAILOSI	FEMALE	RUO	60	CHIKONJE SCHOOL		734874	8174968	14	1	YES								
FLD-RUO-33	MRS. L. PETERSON	FEMALE	RUO	23	CHIKONJE SCHOOL		734970	8174874	14	11	YES				YES				
FLD-RUO-34	MR. L. CHOLIZA	MALE	RUO	32	CHIKONJE SCHOOL	884201300	734993	8174782	23	10	YES								

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	How long have you lived at this place (Yrs)	Education Attainment	Information about House/Shop				How often they experience flood that require evacuation	Time of the year when floods normally happens (yr/month/day)	Yr of Largest Flood	How long does water log at their place
						Size of the House / Shop Area		Material Used to Construct Walls of the					
						Total plot Including Garden	House, Ground Floor (Excluding floor)	Choose Options	Other				
sq.m	sq.m												
FLD-RUO-19	MR. N. CHIKONJE	Male	RUO RIVER	11 to 20	None	0.1	24	Brick and Earth Mortar	N/A	Every 10Yrs	DECEMBER	1989	2 DAYS
FLD-RUO-20	MR. M. LIKWERI	Male	RUO RIVER	More than 40	Primary	0.4	30	Brick and Earth Mortar	N/A	Every 5 Yrs	JANUARY	1989	4 DAYS
FLD-RUO-21	MR. G. KANCHERA	Male	RUO RIVER	More than 40	College	0.1	30	Brick and Earth Mortar	N/A	None	JANUARY	1989	1 week
FLD-RUO-22	MR. A KHASU	Male	RUO RIVER	More than 40	Primary	0.1	12	Brick and Earth Mortar	N/A	Every 10Yrs	DECEMBER	1989	3 DAYS
FLD-RUO-23	MR. S. KONG'A	Male	RUO RIVER	More than 40	None	0.1	10	Brick and Earth Mortar	N/A	Every 10Yrs	DECEMBER	2011	2 DAYS
FLD-RUO-24	MR. F. NTANTHE	Male	RUO RIVER	31 to 40	Secondary	0.1	35	Brick and Earth Mortar	N/A	Every Yr	DECEMBER	1989	5 DAYS
FLD-RUO-25	MRS. E. UNDERSON	Female	RUO RIVER	1 to 10	Primary	0.1	15	Brick and Earth Mortar	N/A	Every Yr	MARCH, APRIL	2011	5 DAYS
FLD-RUO-31	MR. C. PATRICK	MALE	RUO	1-10		17.5	14	BRICK/ EARTH MORTAR		EVERY 5 YEARS	FROM DECEMBER	1989	1 WEEK
FLD-RUO-30	MR. Y.J. MASANKHO	MALE	RUO	21-30	PRIMARY, VOCATIONAL (BULDER)	35	57.5	BRICK/ EARTH MORTAR		EVERY 10 YEARS	FROM JANUARY	1989	3 HRS
FLD-RUO-29	MRS.C. AUBREY	FEMALE	RUO	1-10		17.5	10	BRICK/ EARTH MORTAR		EVERY 2 YRS	FROM JANUARY	2011	1 WEEK
FLD-RUO-28	MR. R. ULIRI	MALE	RUO	11-20		35	35	BRICK/ EARTH MORTAR		EVERY 5 YEARS	FROM DECEMBER	1989	1 DAY
FLD-RUO-27	S. USENI		RUO	40	PRIMARY	70	12	BRICK/ EARTH MORTAR		EVERY 5 YEARS	FROM MARCH	1989	2 WEEKS
FLD-RUO-26	N. SALI	MALE	RUO	31-40	PRIMARY	17.5	3	BRICK/ EARTH MORTAR		EVERY 5 YEARS		1989	3 DAYS
FLD-RUO-32	MRS. J. JAILOSI	FEMALE	RUO	21-30	NONE	35	20	BRICK/ EARTH MORTAR		EVERY 10 YEARS	FROM DECEMBER	1989	5 DAYS
FLD-RUO-33	MRS. L. PETERSON	FEMALE	RUO	1-10	NONE	17.5	30	BRICK/ EARTH MORTAR		EVERY 10 YEARS	FROM JANUARY	1989	1 WEEK
FLD-RUO-34	MR. L. CHOLIZA	MALE	RUO	11-20	PRIMARY	35	15	BRICK/ EARTH MORTAR		EVERY 10 YEARS	FROM JANUARY	1989	1 WEEK

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Maximum inundation depth at their home	Speed of the Hazard	Source of Flooding Water		Story about Flood hazard	Did the community know about about Flood Occurance?	
						Choose Option	Other (Pls Specify)		Yes or No	If Yes How did they know
FLD-RUO-19	MR. N. CHIKONJE	Male	RUO RIVER	0.5M	Fast	River	n/a	They had heavy rainfall, the situation went worse because some of the waters were coming from the mountain, it was a heavy and fast flooding that went away with livestock, crops and propety.	Yes	heavy raifall
FLD-RUO-20	MR. M. LIKWERI	Male	RUO RIVER	1M	Slow	River	n/a	it was in march, they had heavy rainfall which caused floods and destroyed crops, livestock, houses. They left the place to an evacuation center	Yes	observed the weather, had heavy rainfall and knew it was going to flood
FLD-RUO-21	MR. G. KANCHERA	Male	RUO RIVER	0.5	Slow	River	RIVER	they had heavy rainfall, they were forced to. Children stayed for about 1 week without going to school because it was difficult for them to move	Yes	n/a
FLD-RUO-22	MR. A KHASU	Male	RUO RIVER	1M	Fast	River	n/a	upper area had heavy rainfall, flooding came with different object, trees, crocodiles. People suffered because they had nothing to eat	No	n/a
FLD-RUO-23	MR. S. KONG'A	Male	RUO RIVER	1M	Fast	River	N/A	they had heavy rainfall which cause flooding. Flooding came with dangerous objects like trees and dangerous animals e.g snakes and crocodiles	No	n/a
FLD-RUO-24	MR. F. NTANTHE	Male	RUO RIVER	1M	Fast	River	N/A	It was at night, we heard the sound of water and then discovered that water was entering the house. Our livestock died due to suffocation	Yes	they saw a certain type of birds, they also got warnings from fellow villagers
FLD-RUO-25	MRS. E. UNDERSON	Female	RUO RIVER	0.8M	Fast	River	N/A	they received heavy rainfall, it started late in the morning, for three days, then floods came with a huge noise and it was so fast that they did not take anything with them	Yes	n/a
FLD-RUO-31	MR. C. PATRICK	MALE	RUO		1 FAST	RIVER		WE HAD HEAVY RAIN, IT WAS IN THE NIGHT WE HEARD NOISE FROM PEOPLE OUTSIDE BEATING DRUMS, WHEN WE WOKE UP AND OPENED THE DOOR, WE FOUND WATER AROUND THE HOUSE AND WATER WAS ENTERING THE HOUSE AFTER CHECKING OUR LIVESTOCK WE FOUND THEM GONE	YES	WE HAD HEAVY RAINS AND I KNEW WE ARE GOING TO RECEIVE FLOODS FROM THE UPPER PLACES
FLD-RUO-30	MR. Y.J. MASANKHO	MALE	RUO		0.5 SLOW	RIVER		WE HAD HEAVY RAINS, PEOPLE LOST THEIR PROPERT AND THEY GOT SICK DUE TO THE MULTIPLICATION OF FLIES WHICH WAS HIGH. WE LEFT THE PLACE TO A SAFER PLACE WHERE WE MET FRIENDS FROM DIFFARENT VILLAGES	YES	WE HAD A PICTURE THAT WE MAY HAVE FLOODS BECAUSE WE HAD HEAVY RAINS AND IT FALL FOR A WEEK AND THE RUO RIVER WAS FULL
FLD-RUO-29	MRS.C. AUBREY	FEMALE	RUO		1 FAST	RIVER		WE HAD HEAVY RAINS DURING 1 AM, WE HEARD A KNOCK FROM PEOPLE OUTSIDE BECAUSE BY THAT TIME WE WERE ASLEEP, WE WOKE UP AND OPENED THE DOOR FOUND WATER AROUND THE HOUSE AND WE LEFT THE PLACE	YES	THE AMOUNT OF RAINS WAS SO HEAVY AND THE RIVER WAS FULL
FLD-RUO-28	MR. R. ULIRI	MALE	RUO		0.5 SLOW	RIVER		IT WAS LAST YEAR 2011 WHEN WE HAD HEAVY RAINS, IT WAS AROUND 22 HRS. WE WENT TO OUR HOUSES TO SLEEP 0BECAUSE THE FLOW WAS SLOW AND THE WATER WAS LITTLE BUT THE FOLLOWING MORNING WE FOUND WATER EVERYWHERE, LIVESTOCK WERE GOING WITH WATTER SO WE LEFT OUR PLACE TO A SAFER PLACE	YES	THE HEAVY NON STOP RAINS, WE KNEW THAT IT WILL RAIN
FLD-RUO-27	S. USENI		RUO		0.5 SLOW	RIVER		WE HAD HEAVY RAINS FOR A WEEK NON STOP AND WATER WAS EVERYWHERE, IT REACHED TO THE POINT OF DESTROYING PEOPLE'S HOUSES, CROPS AND LIVESTOCKAND WE HAD HUNGER THAT YEAR		
FLD-RUO-26	N. SALI	MALE	RUO		0.5 SLOW	RIVER		ONE NIGHT WE HAD WATER FROM THE UPPER AREA WHICH CAUSED FLOODS, WE SUFFERED A LOT BECAUSE WATER WAS EVERYWHERE WE EVEN FAILED TO COOK AND WE STAYED FOR A WEEK WITHOUT COOKING AND THOSE FLOODS TOOK AWAY OUR FOOS AND LIVESTOCK		
FLD-RUO-32	MRS. J. JAILOSI	FEMALE	RUO		1 FAST	RIVER		WE HAD HEAVY RAINS THAT LED TO FLOODING, WATER TOOK AWAY OUR LIVESTOCK, OUR CROPS WERE IN WATER, WE HAD A LOT OF DIESEASES BECAUSE FLIES WERE EVERYWHERE DUE TO HIGH MULTIPLICATION OF FLIES		
FLD-RUO-33	MRS. L. PETERSON	FEMALE	RUO		1 FAST	RIVER		IT WAS NIGHT WE HAD HEAVY RAINS FOR A WEEK, AFTER A WEEK WE HAD WATER EVERYWHERE, WE CALLED GOVERNMENT AND THEY ASSISTED US WITH A CONOE TO VACATE PEOPLE TO A SAFER PLACE	YES	WE HAD A LOT OF RAINS AND RUO SWELLED UP
FLD-RUO-34	MR. L. CHOLIZA	MALE	RUO		1 SLOW	RIVER		IT WAS A NIGHT WE HAD HEAVY RAINS, WE DID NOT NOTICE ANYTHING BECAUSE WE WERE SLEPPING THEN WE HEARD NOISE, WE OPENED THE DOOR TO FIND WATER EVERYWHERE, PEOPLE CALLED GOVERNMENT DERPARTMENT AND THEY COME WITH CANOES TO HELP US MOVE FROM THE PALCE TO ASAFER PLACE	YES	WE HAD HEAVY RAINS AND OUR HOUSE IS JUST NEAR A RIVER SLOPE

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	How many days /months did it take before the hazard occurred	What happened when the flood occurred	Forces
						What was affected and by what?
FLD-RUO-19	MR. N. CHIKONJE	Male	RUO RIVER	5 days	there was hunger and diseases because water damaged their food and crops.	crops,livestock and people were affected by water. The water acted as a bleeding place for mosquitoes and also caused other water borne diseases
FLD-RUO-20	MR. M. LIKWERI	Male	RUO RIVER	1 day	they suffered wth hunger because floods destroyed their crops and their livestock drowned	crops,livestock and houses were affected by water
FLD-RUO-21	MR. G. KANCHERA	Male	RUO RIVER	n/a	they suffered a lot, they stayed for sometime without eating because they had no place to cook	crops,livestock were affected by water
FLD-RUO-22	MR. A KHASU	Male	RUO RIVER	n/a	there was hunger because their crops died due to water logging, people could not perform their duties	crops,livestock were affected by water
FLD-RUO-23	MR. S. KONGA	Male	RUO RIVER	n/a	crops were damaged, there was disease outbreak, some people lost their property	people were affected by diseases, crops were damaged by water
FLD-RUO-24	MR. F. NTANTHE	Male	RUO RIVER	1 month	crops were damaged, there was disease outbreak, some people lost their property	people were affected by diseases, crops and livestock by running water.
FLD-RUO-25	MRS. E. UNDERSON	Female	RUO RIVER	n/a	crops were damaged, there was disease outbreak, some people lost their property	people were affected by hunger and diseases
FLD-RUO-31	MR. C. PATRICK	MALE	RUO	AFETR 1 WEEK	OUR CROPS GONE, LIVESTOCK GONE, AND SOMETIMES WE RECEIVE ASSISTANCE FROM GOVERNMENT AND NGO'S WITH FOOD AND BEDDINGS	OUR LIVESTOCK SUUFOCATED WITH THE WATER, PEOPLE FAILED TO WORK DUE TO WATER, CROPS WERE LOGGED IN WATER LEADING TO CROP FAILURE
FLD-RUO-30	MR. Y.J. MASANKHO	MALE	RUO	3 DAYS, WE HAD HEAVY RAINS NON STOP	WE LEFT THE PLACE USING BOATS HIRED BY THE GOVERNMENT TO A SAFER PLACE AND GOVERNMENT JETS COME TO DISTRIBUTE FOOD	PEOPLE WERE AFFECTED BY WATER WE HAD NOWHERE TO STAY AND OUR DUTIES AND PROGRAMMES WERE AFFECTED, OUR LIVESTOCK HAD NO WHER TO STAY, OUR CROPS WERE LOGGED IN WATER THAT MADE THEM TO DIE
FLD-RUO-29	MRS.C. AUBREY	FEMALE	RUO	HUNGER BECAUSE OUR FOOD WAS WASHED AWAY AND WE COULD NOT COOK FOR THE FAMILY		PEOPLE COULD NOT COOK AS WATER WAS EVERYWHERE, OUR LIVESTOCK WAS WASHED AWAY BY THE RAINS, CROPS WERE LOGGED IN WATER
FLD-RUO-28	MR. R. ULIRI	MALE	RUO	2 DAYS OF HEAVY RAINFALL	WE HAD UNHGYNIE PLACE BECAUSE AFTER THE RAIN HAS COME WATER MIXES WITH DISPOSALS FROM THE TOILETS AND THAT LEADS TO HIGH RATE OF DISEASES LIKE CHOLERA AND FUNGUS	PEOPLE WERE AFFECTED BY THE WATER, WE DID NOT HAVE THE FREEDOM TO COOK OR TO DO OUR DUTIES, OUR LIVESTOCK WENT AWAY WITH WATER
FLD-RUO-27	S. USENI		RUO		WE EXPERIENCED A LOT OF DISEASES BECAUSE OF THESE FLOODS DUE TO THE HIGH MULTIPLICATION OF FLIES	PEOPLE WERE AFFECTED BY WATER, WE EXXPERINCED HUNGER BECAUSE ALL THE CROPS WERE GONE WITH WATER, OUR LIVESTOCK WAS CARRIED BY WATER AS WELL
FLD-RUO-26	N. SALI	MALE	RUO		WE HAD HUNGER SINCE OUR FOOD WAS WASHED AWAY, OUR LIVESTOCK GONE, PEOPLE HAD TO MOVE FROM PLACE TO PLACE	
FLD-RUO-32	MRS. J. JAILOSI	FEMALE	RUO		WE HAD A LOT OF WATER AROUND THE COMMUNITY WE EVEN FAILED TO COOK BECAUSE WE HAD NOT TO COOK OUR FOOD	LIVESTOCK WAS WASHED AWAY, OUR CROPS WASHED AWAY, PEOPLE ESPECIALLY CHILDREN FAILED TO GO TO SCHOOL BECAUSE WATER WAS EVERYWHERE
FLD-RUO-33	MRS. L. PETERSON	FEMALE	RUO	AFTER 3 DAYS OF HEAVY RAINS	WE HAD A LOT OF WATER AROUND THE HOUSE WE FAILED TO COOK THE COMMUNITY LEFT FOR A SAFER PLACE	OUR LIVESTOCK WENT AWAY WITH WATER, CROPS WERE LOGGED IN WATER, CHILDREN FAILED TO ATTEND SCHOOL AND PEOPLE FAILED TO MOVE FROM PLACE TO PLACE
FLD-RUO-34	MR. L. CHOLIZA	MALE	RUO	3 DAYS	PEOPLE LEFT FOR SAFER PLACES, PEOPLE COULD NOT COOK AS WATER WAS VERYWHERE	LIVESTOCK WAS WASHED AWAY, CROPS WERE LOGGED IN WATER AND THEY DIED, PEOPLE STAYED WITHOUT EATING AS WATER WAS EVERY WHERE

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Forces	What was the depth of evacuation?	Distance and Duration to Evacuation Centres		Did you get any alert about flood?	If yes, where did you get the information				
				Who were affected and How?		Length (m)	Duration (min)		Radio/TV	Neighbours	Police	Govt dept	Others (Specify)
FLD-RUO-19	MR. N. CHIKONJE	Male	RUO RIVER	people had diseases and there was hunger. The waters acted as a bleeding place for mosquitoes. All their farm crops went away with water	0.5	n/a	hr	yes	radio	no	no	no	n/a
FLD-RUO-20	MR. M. LIKWERI	Male	RUO RIVER	people were affected, there was hunger in the village because their crops were taken and destroyed by water. There was also disease outbreak because of stagnant waters	1m	n/a	3hrs	yes	radio	no	no	no	n/a
FLD-RUO-21	MR. G. KANCHERA	Male	RUO RIVER	crops were damaged by water, people suffered a lot because there was hunger and diseases	1m	n/a	n/a	no	n/a	n/a	n/a	n/a	n/a
FLD-RUO-22	MR. A KHASU	Male	RUO RIVER	crops were damaged by water, people suffered a lot because there was hunger and diseases	1m	n/a	30	yes	radio	no	no	no	n/a
FLD-RUO-23	MR. S. KONGA	Male	RUO RIVER	so many people were affected, they could not perform their duties, they got diseases and were left with hunger as they lost everything	1m	n/a	30	n/a	n/a	n/a	n/a	n/a	n/a
FLD-RUO-24	MR. F. NTANTHE	Male	RUO RIVER	people were affected by diseases and hunger	1m	n/a	30	yes	yes	no	no	yes	n/a
FLD-RUO-25	MRS. E. UNDERSON	Female	RUO RIVER	they wes hunger and disease outbreak, this happened because crops were damaged by running water and water logging	0.8m	n/a	3hrs	yes	yes	no	no	no	n/a
FLD-RUO-31	MR. C. PATRICK	MALE	RUO			1	40 MIN	YES	YES				
FLD-RUO-30	MR. Y.J. MASANKHO	MALE	RUO			1	2 HRS	YES				YES	
FLD-RUO-29	MRS.C. AUBREY	FEMALE	RUO			1	3 HRS	YES	YES				
FLD-RUO-28	MR. R. ULIRI	MALE	RUO			0.5	1 HR	YES	YES			YES	
FLD-RUO-27	S. USENI		RUO			0.5	2 HRS	YES	YES			YES	
FLD-RUO-26	N. SALI	MALE	RUO			0.5	2 HRS	YES	YES				
FLD-RUO-32	MRS. J. JAILOSI	FEMALE	RUO			1	1 HR	NO					
FLD-RUO-33	MRS. L. PETERSON	FEMALE	RUO			1	2 DAYS	YES	YES				
FLD-RUO-34	MR. L. CHOLIZA	MALE	RUO			1	2 HRS	YES	YES				DERPART

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Did you know Evacuation Centres	Where did you evacuate during flood?	Duration at the Evacuation centre	Availability of Safe Storage System in the House	Money saved for eventuaities	Availability of Development facilitators for Early Warning Systems	How often do they come	Are villagers united during floods?	Is there an opportunity to strengthen houses for the poor	Whether belongings were taken during evacuation	Condition of road to evacuation centres
FLD-RUO-19	MR. N. CHIKONJE	Male	RUO RIVER	yes	Mpingo wamoyo Church	2 days	no	no	n/a	n/a	yes	yes	no	bad
FLD-RUO-20	MR. M. LIKWERI	Male	RUO RIVER	yes	chikonje school	2 days	no	no	no	n/a	yes	yes	no	bad
FLD-RUO-21	MR. G. KANCHERA	Male	RUO RIVER	n/a	n/a	n/a	no	no	no	n/a	no	yes	n/a	n/a
FLD-RUO-22	MR. A KHASU	Male	RUO RIVER	yes	Namiyala upper area	1 week	no	no	no	n/a	yes	yes	no	worse
FLD-RUO-23	MR. S. KONG'A	Male	RUO RIVER	yes	Namiyala Primary School	2days	yes	no	no	n/a	no	yes	no	FAIR
FLD-RUO-24	MR. F. NTANTHE	Male	RUO RIVER	yes	Namiyala School	3 days	yes	no	yes	1/month	no	yes	no	bad
FLD-RUO-25	MRS. E. UNDERSON	Female	RUO RIVER	no	chambuluka trading center	1 week	no	no	no	n/a	no	yes	no	worse
FLD-RUO-31	MR. C. PATRICK	MALE	RUO	YES	MADELA	2 MONTHS	NO	NO	NO		NO	YES	NO	BAD
FLD-RUO-30	MR. Y.J. MASANKHO	MALE	RUO	YES	NYATWA CAMP	3 MONTHS	NO	NO	NO		NO	YES		BAD
FLD-RUO-29	MRS.C. AUBREY	FEMALE	RUO	YES	MADELA	1 WEEK	NO	NO	NO		NO	YES	NO	BAD
FLD-RUO-28	MR. R. ULIRI	MALE	RUO	YES	TO MY NEIGHBORS	3 DAYS	NO	NO	YES	ONCE	NO	YES	NO	BAD
FLD-RUO-27	S. USENI		RUO	YES	CHIKALE SCHOOL	1 MONTH	NO	NO	YES	TWICE	YES	YES	NO	FAIR
FLD-RUO-26	N. SALI	MALE	RUO	YES	CHIKALE SCHOOL	4 DAYS	YES	YES	NO		YES	YES	NO	FAIR
FLD-RUO-32	MRS. J. JAILOSI	FEMALE	RUO	YES	NYATWA CAMP	2 MONTHS	YES	YES	NO		NO	YES	NO	BAD
FLD-RUO-33	MRS. L. PETERSON	FEMALE	RUO	YES	NYATWA CAMP	1 MONTH	NO	NO	NO		NO	YES		WORSE
FLD-RUO-34	MR. L. CHOLIZA	MALE	RUO	YES	MADELA	1.5 MONTHS	NO	YES	NO		NO	YES	NO	WORSE

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Frequency of maintaining access roads	Whether quality water and power is available at the evacuation centres	Is there safe shelter for livestock	Costs of Direct Damage in the Largest Flood (MK)					Major Diseases during flood					Major Challenges related to Gender Discrimination
							House	Agricultural	Property	Other (specify)	Total Damage	Typhoid	Dysentery	Cholera	Malaria	Others (Pls Specify)	
FLD-RUO-19	MR. N. CHIKONJE	Male	RUO RIVER	1/yr	no	no	n/a	58,000mk	n/a	n/a	58,000mk	no	yes	yes	yes	n/a	no
FLD-RUO-20	MR. M. LIKWERI	Male	RUO RIVER	1/yr	no	no	n/a	22,000mk	n/a	n/a	22,000mk	no	no	yes	yes	n/a	no
FLD-RUO-21	MR. G. KANCHERA	Male	RUO RIVER	n/a	n/a	n/a	n/a	18,000mk	n/a	n/a	18,000mk	no	yes	yes	yes	n/a	no
FLD-RUO-22	MR. A. KHASU	Male	RUO RIVER	n/a	no	no	n/a	8,400	n/a	24,000mk (chickens)	24,000mk	no	no	yes	yes	n/a	no
FLD-RUO-23	MR. S. KONG'A	Male	RUO RIVER	1/yr	no	no	n/a	9,000mk	n/a	5,000MK (CHICKENS)	14,700mk	no	no	yes	yes	n/a	no
FLD-RUO-24	MR. F. NTANTHE	Male	RUO RIVER	1/yr	no	yes	n/a	50,000mk	20,000mk	20,000mk (goats)	90,000mk	no	yes	yes	yes	n/a	n/a
FLD-RUO-25	MRS. E. UNDERSON	Female	RUO RIVER	1/yr	yes	yes	1,000mk	36,000mk	n/a	18,000mk (goats)	55,000mk	no	yes	yes	yes	n/a	no
FLD-RUO-31	MR. C. PATRICK	MALE	RUO	ONCE	YES	NO	9000	50000	35000		94000		YES	YES	YES		
FLD-RUO-30	MR. Y.J. MASANKHO	MALE	RUO	ONCE	YES	NO	8000	15000		LIVESTOCK 2000	43000		YES	YES		FLU	
FLD-RUO-29	MRS.C. AUBREY	FEMALE	RUO	ONCE	NO	YES	15000	4500	1000		20500		YES	YES	YES	FUNGUS	
FLD-RUO-28	MR. R. ULIRI	MALE	RUO	ONCE	YES	NO	3000	40000		CHICKENS 4500	47500		YES		YES		
FLD-RUO-27	S. USENI		RUO	ONCE	YES	NO	3000	25000		LIVESTOCK 2500	53000			YES	YES		
FLD-RUO-26	N. SALI	MALE	RUO	TWICE	YES	YES	1500	6000			7500			YES			
FLD-RUO-32	MRS. J. JAILOSI	FEMALE	RUO	ONCE	YES	YES		25000	19800	LIVESTOCK 9200	54000		YES	YES	YES		
FLD-RUO-33	MRS. L. PETERSON	FEMALE	RUO	ONCE	YES	NO	15000	20000	25000	LIVESTOCK 1500	75000		YES	YES	YES		
FLD-RUO-34	MR. L. CHOLIZA	MALE	RUO	ONCE	NO	NO	25000	54000	28500	LIVESOCK 17500	125000			YES	YES		

CHAPTER 8 FLOOD SURVEY

Individual Code	Name	Sex	River	Major Challenges related to Gender During Evacuation			Any Reasons for not shifting to safe places	Interviewer		
				Violence	Hard Labour	Others (Pls Specify)		Date	Name	Witness (Name)
FLD-RUO-19	MR. N. CHIKONJE	Male	RUO RIVER	no	yes	n/a	the place has fertile soils, they do not even use fertilizers.	27/11/2012	WEMA CHIUMIA	
FLD-RUO-20	MR. M. LIKWERI	Male	RUO RIVER	no	no	n/a	they are used to the place, its their village	27/11/2012	WEMA CHIUMIA	
FLD-RUO-21	MR. G. KANCHERA	Male	RUO RIVER	no	no	n/a	he is old, he can manage buying a new land	28/11/2012	WEMA CHIUMIA	
FLD-RUO-22	MR. A KHASU	Male	RUO RIVER	no	no	n/a	They have safe water unlike the upper area	28/11/2012	WEMA CHIUMIA	
FLD-RUO-23	MR. S. KONG'A	Male	RUO RIVER	no	no	n/a	they do no have money to buy a new land	28/11/2012	WEMA CHIUMIA	
FLD-RUO-24	MR. F. NTANTHE	Male	RUO RIVER	n/a	n/a	n/a	They do not have money to bulid another house and buy a new land	28/11/2012	WEMA CHIUMIA	
FLD-RUO-25	MRS. E. UNDERSON	Female	RUO RIVER	no	no	n/a	they are searching for money to buy a new land and build a house	28/11/2012	WEMA CHIUMIA	
FLD-RUO-31	MR. C. PATRICK	MALE	RUO				WE ARE USED TO THIS PLACE BECAUSE WE HAVE FERTILE SOILS	27/11/2012	SELLAH MAMBO	
FLD-RUO-30	MR. Y.J. MASANKHO	MALE	RUO				FOR US TO LEAVE THIS PLACE WE WILL NEED MONEY TO BUY LAND AND CONSTRUCT A HOUSE AND THE MONEY WE HAVE IS NOT ENOUGH FOR ALL THAT	27/11/2012	SELLAH MAMBO	
FLD-RUO-29	MRS.C. AUBREY	FEMALE	RUO				WE DO NIT HAVE ENOUGH MONEY TO MOV FROM HERE TO THE UPPERLAND, TRANSPORTATION	27/11/2012	SELLAH MAMBO	
FLD-RUO-28	MR. R. ULIRI	MALE	RUO				WE DON'T HAVE MONET TO BUY A PLACE TO BULD A HOUSE AND CULTIVATE SOMEWHERE	27/11/2012	SELLAH MAMBO	
FLD-RUO-27	S. USENI		RUO				I DON'T HAVE ENOUGH MONEY TO BUY ANOTHER PLACE TO CULTIVATE AND BULD A HOUSE	28/11/2012	SELLAH MAMBO	
FLD-RUO-26	N. SALI	MALE	RUO				IF I LEAAVE THIS PLACE THAT MEANS WHERE EVER I GO I WILL OF HNGER BECAUSE IT WILL BE DIFICULT TO HAVE A LAND TO CULTIVATE AND I WILL ALSO NEED MONEY TO BUY A FIELD	28/11/2012	SELLAH MAMBO	
FLD-RUO-32	MRS. J. JAILOSI	FEMALE	RUO		YES		IAM USED TO CULTIVATING RICE SO I CANNOT LEAVE THE PLACE BECAUSE THIS LAND IS SUITABLE FOR RICE CULTIVATION	27/11/2012	SELLAH MAMBO	
FLD-RUO-33	MRS. L. PETERSON	FEMALE	RUO		YES		WE ARE USED TO THIS PLACE WE HAVE OUR FIELD SO WE DON'T HAVE MONEY TO OPEN OTHER FILED	27/11/2012	SELLAH MAMBO	
FLD-RUO-34	MR. L. CHOLIZA	MALE	RUO				WE ARE USED TO STAYYY HERE AND WE HAVE OUR FILEDS HERE AND WE CANNOT LEAVE THEM	27/11/2012	SELLAH MAMBO	

