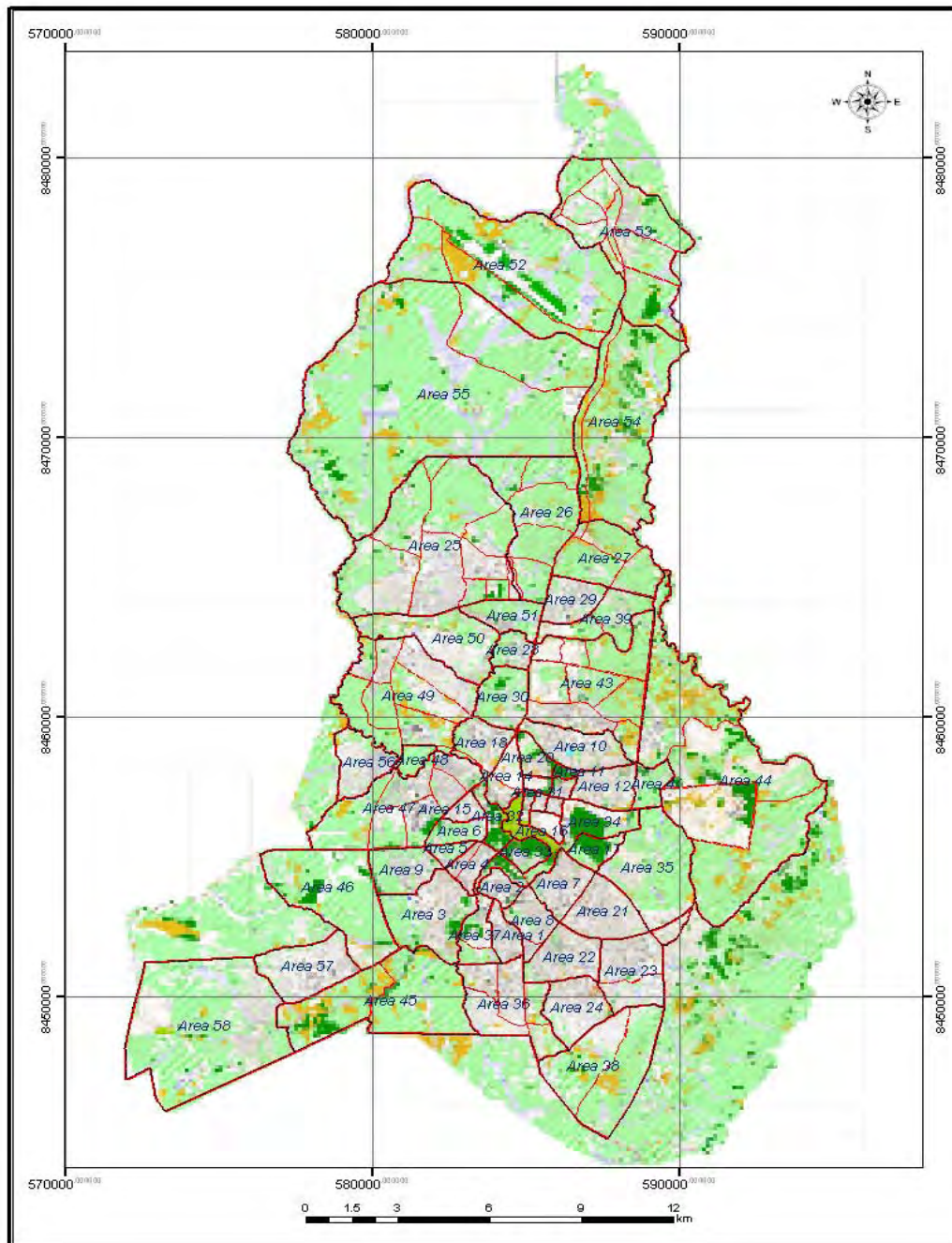


APPENDIX

APPENDIX 1

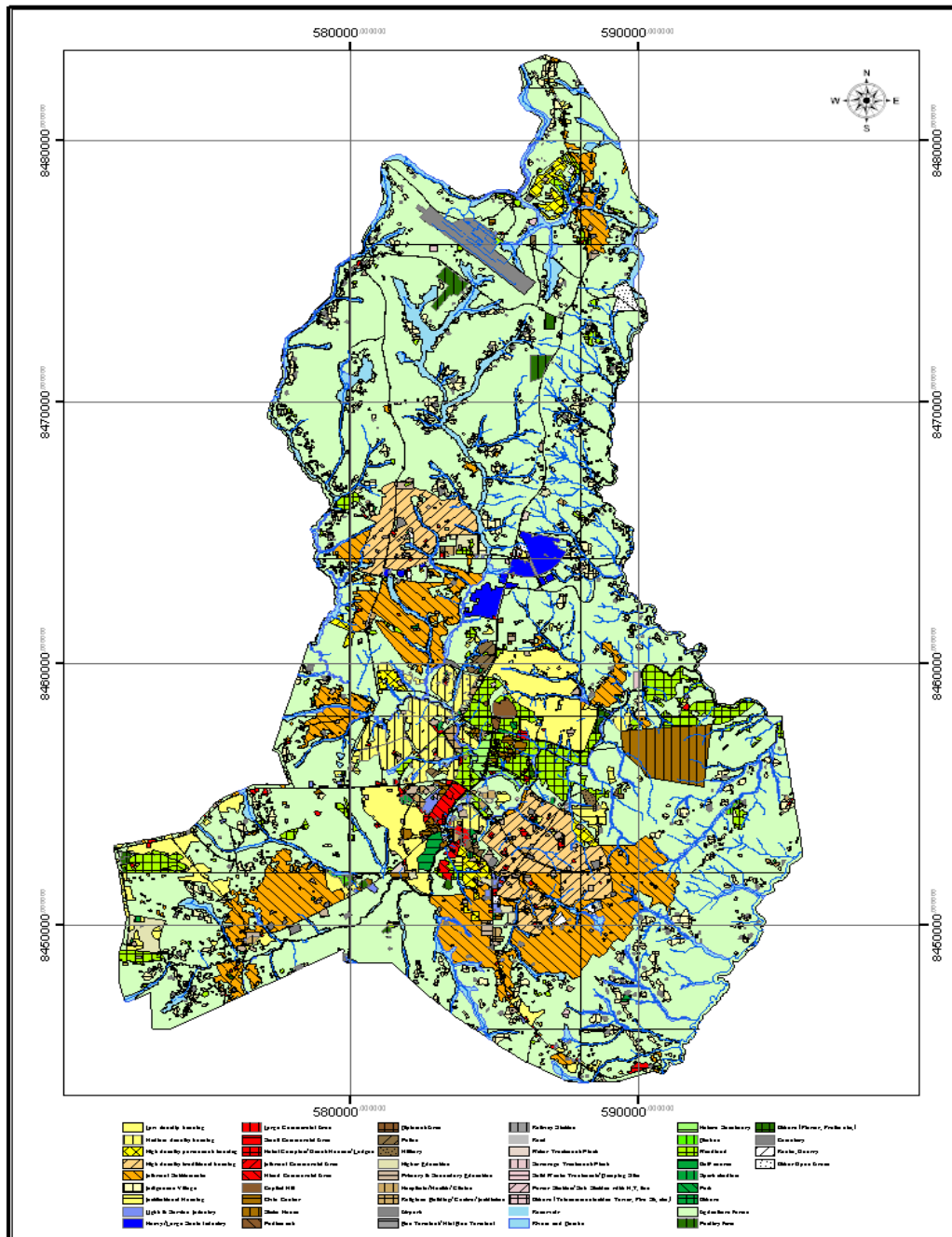
Area Diagnosis on Area 1~58 of Lilongwe City

Area Diagnosis Lilongwe City Area No1 to No58


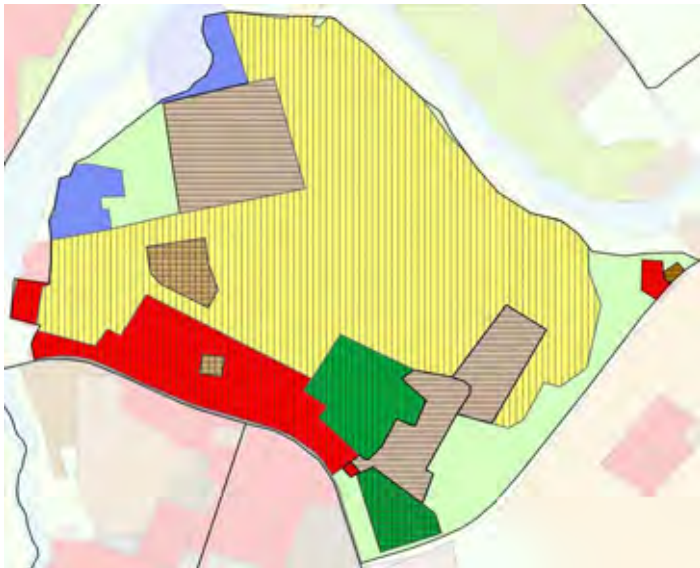


Current Land Use

as of August 2009




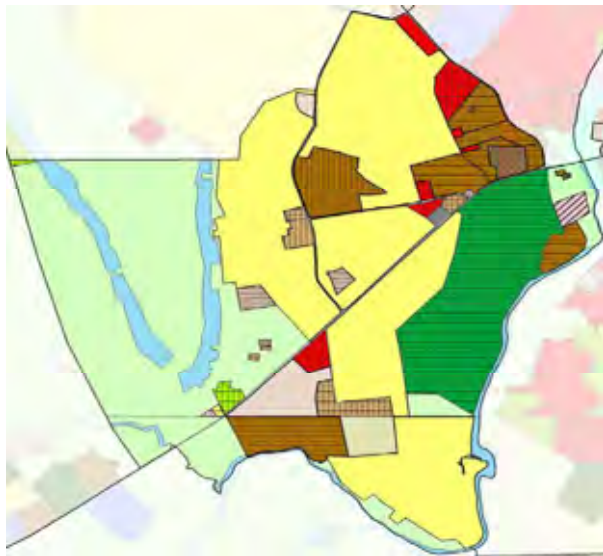
Area 2

1	Urban Zone	Old Town		
2	Land Ownership	Ministry of Lands		
3	Area (ha)	Official	232.0	
		Actual	119.1	
4	Nos of Population	in 1988	2,774	
		in 2008	3,068	
		Pop Growth Rate% 1988-2008	1.00	
5	Population Density (/ha)	in 1988 (Actual)	23	
		in 2008 (Actual)	26	
6	Nos of Unplanned Settlement Population	Nos of Village	-	
		Nos of Population in 1987	-	
		Nos of Population in 2005	-	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Medium Density Housing	119.1	
		TOTAL	119.1	
8	Actual Landuse (ha) (as of August, 2009)	Medium Density Housing	61.27	51.4%
		Agriculture Farms	15.59	13.1%
		Primary & Secondary Education	15.51	13.0%
		Large Commercial Area	11.59	9.7%
		Sport stadium	5.18	4.3%
		Light & Service Industry	4.00	3.4%
		Others	5.97	5.0%
	TOTAL	119.1	100.0%	
9	Characteristics	Area 2 is designated as Medium Density Housing, and half of area is being used as Medium Density Housing, Large Commercial area and Light & Service Industry areas are along M1 Road and Agricultural areas are along the Lilongwe River.		
10	Future Emerging Structure and Development Direction	Since this area forms a part of Old Town, there is big potentiality for urban redevelopment for commercial use or mixed use with commercial and residential. In future, such light industrial workshops will have to be relocated from the area 2 to the suburb area for the purpose of making the Old Town more beautiful. Agriculture farms do not have to be here.		


Area 3






1	Urban Zone	Chimutu	
2	Land Ownership	Ministry of Lands	
3	Area (ha)	Official	626.0
		Actual	633.6
4	Nos of Population	in 1988	4,658
		in 2008	4,558
		Pop Growth Rate% 1988-2008	-0.20
5	Population Density (/ha)	in 1988 (Actual)	7
		in 2008 (Actual)	7
6	Nos of Unplanned Settlement Population	Nos of Village	-
		Nos of Population in 1987	-
		Nos of Population in 2005	-
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Low Density Housing	633.6
		TOTAL	633.6
8	Actual Landuse (ha) (as of August, 2009)	Low density housing	228.53 36.1%
		Seasonal agriculture/Agri-mix	179.06 28.3%
		Golf course	70.15 11.1%
		Civic Center	41.07 6.5%
		Rivers and Dambo	36.00 5.7%
		State House	14.15 2.2%
		Others	64.64 10.2%
		TOTAL	633.6 100.0%
9	Characteristics	Once upon a time, Area 3 was British colonial town. It is designated as Low Density Housing and as of 36% of this area is now used as LDHP. The rest of areas are being used as Agricultural farms, Golf course, and Governmental use (Civic centre and State House).	
10	Future Emerging Structure and Development Direction	Since there remains a colonial atomosphere typically in Area 3, some parts should be preserved as urban heritage. However, as this area is very close to the Old Town, some parts in proximity with the commercall area will be potentially converted for higer density land use. Some of government-owned lands will be used for redevelopment.	



Area 4



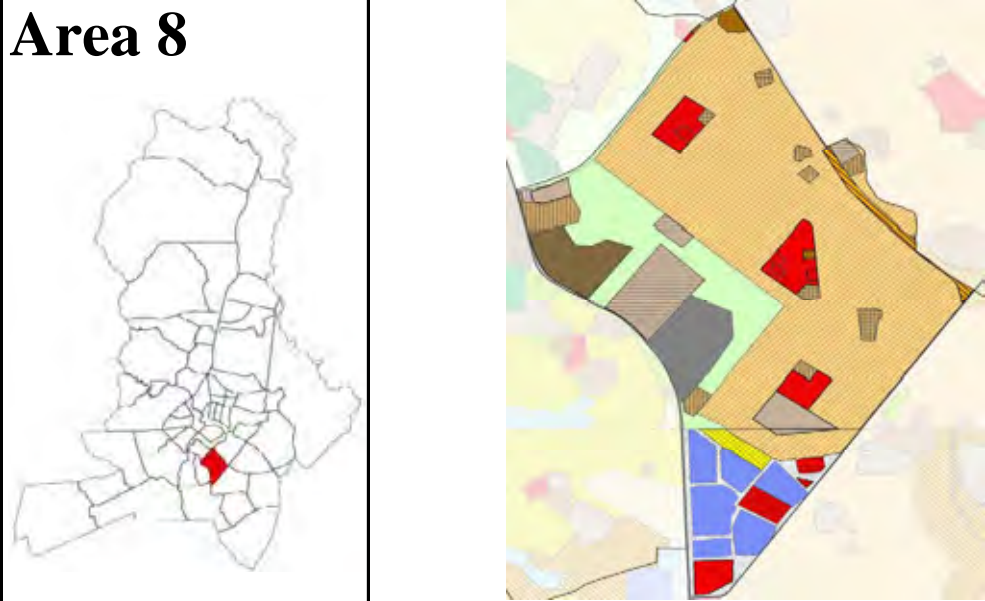


1	Urban Zone	Old Town		
2	Land Ownership	Ministry of Lands		
3	Area (ha)	Official	145.0	
		Actual	151.9	
4	Nos of Population	in 1988	42	
		in 2008	99	
		Pop Growth Rate% 1988-2008	9.00	
5	Population Density (/ha)	in 1988 (Actual)	0	
		in 2008 (Actual)	1	
6	Nos of Unplanned Settlement Population	Nos of Village	-	
		Nos of Population in 1987	226	
		Nos of Population in 2005	764	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Industry	151.9	
		TOTAL	151.9	
8	Actual Landuse (ha) (as of August, 2009)	Mixed Commercial Area	72.19	47.5%
		Light & Service Industry	26.14	17.2%
		Civic Center	14.19	9.3%
		Large Commercial Area	11.22	7.4%
		Small Commercial Area	6.02	4.0%
		Others (Telecom Tower, etc.)	5.33	3.5%
		Others	16.82	11.1%
TOTAL	151.9	100.0%		
9	Characteristics	This area is the most prospering space as commercial center. Several shopping mall development projects are undergoing. Area 4 is designated for Industry. Over 60% of actual land is used as Commercial Area (Mixed, Large and Small) while 17% is used as Light & Service Industry.		
10	Future Emerging Structure and Development Direction	This is a typical mixed use area. In order to make the Old Town more attractive and beautiful, urban renewal and redevelopment will be necessary. If the light and service industries are successfully removed from here, the sites will be used for such new direction urban redevelopment.		

Area 5

1	Urban Zone	Old Town		
2	Land Ownership	Malawi Housing Corporation		
3	Area (ha)	Official	76.0	
		Actual	72.9	
4	Nos of Population	in 1988	225	
		in 2008	764	
		Pop Growth Rate% 1988-2008	13.00	
5	Population Density (/ha)	in 1988 (Actual)	3	
		in 2008 (Actual)	10	
6	Nos of Unplanned Settlement Population	Nos of Village	-	
		Nos of Population in 1987	-	
		Nos of Population in 2005	-	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Medium Density Housing	72.9	
		TOTAL	72.9	
8	Actual Landuse (ha) (as of August, 2009)	Seasonal agriculture/Agri-mix	27.17	37.3%
		Primary & Secondary Education	22.32	30.6%
		Religious Building/Centre/Institutes	14.06	19.3%
		Civic Center	5.94	8.2%
		District Distributor Road	1.11	1.5%
		Large Commercial Area	0.98	1.3%
		Others	1.29	1.8%
TOTAL	72.9	100.0%		
9	Characteristics	Area 5 is designated as Medium Density Housing. However, the largest land use of actual situation is Seasonable agriculture/Agri-mix and there is no use as the residential area.		
10	Future Emerging Structure and Development Direction	Extension of Mzimba Street is now undergoing. After completion, the development potentiality will upsurge. From the viewpoint of location, Area 5 has big potentiality of urban development. Since it is very close to commercial center in the Old Town, it will be easy to convert land use for commercial or high-rise residential land use.		



Area 8				
1	Urban Zone	Old Town		
2	Land Ownership	Lilongwe City Assembly		
3	Area (ha)	Official	234.0	
		Actual	238.6	
4	Nos of Population	in 1988	23,310	
		in 2008	20,487	
		Pop Growth Rate% 1988-2008	-1.30	
5	Population Density (/ha)	in 1988 (Actual)	98	
		in 2008 (Actual)	86	
6	Nos of Unplanned Settlement Population	Nos of Village	-	
		Nos of Population in 1987	-	
		Nos of Population in 2005	-	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	High Density Housing Traditional	238.6	
		TOTAL	238.6	
8	Actual Landuse (ha) (as of August, 2009)	High density traditional housing	125.82	52.7%
		Seasonal agriculture/Agri-mix	27.14	11.4%
		Primary & Secondary Education	15.65	6.6%
		Light & Service Industry	14.53	6.1%
		Small Commercial Area	11.28	4.7%
		Cemetery	9.73	4.1%
		Others	34.45	14.4%
		TOTAL	238.6	100.0%
9	Characteristics	Area 8 is designated as High Density Traditional Housing, and a half of the area is used as High Density Traditional Housing. Another main land use is Seasonal agriculture/Agri-mix. It occupies about 10%, followed by Institutional (Primary & Secondary Education).		
10	Future Emerging Structure and	Since the area 8 is just adjacent to the area 1 and 2, its location convenience is evaluated very high. In future, It is very probable that urban renewal and redevelopment will take place here because of the location advantage.		

Area 9




1	Urban Zone	Chimutu		
2	Land Ownership	Press Properties (Free Hold)		
3	Area (ha)	Official	281.0	
		Actual	318.8	
4	Nos of Population	in 1988	1,529	
		in 2008	1,878	
		Pop Growth Rate% 1988-2008	2.10	
5	Population Density (/ha)	in 1988 (Actual)	5	
		in 2008 (Actual)	6	
6	Nos of Unplanned Settlement Population	Nos of Village	-	
		Nos of Population in 1987	-	
		Nos of Population in 2005	-	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Low Density Housing	318.8	
		TOTAL	318.8	
8	Actual Landuse (ha) (as of August, 2009)	Low density housing	181.89	57.0%
		Seasonal agriculture/Agri-mix	98.87	31.0%
		Sport stadium	9.87	3.1%
		Hotel Complex/Guest Houses/Lodges	8.91	2.8%
		Rivers and Dambo	6.42	2.0%
		Woodland	4.17	1.3%
		Others	8.71	2.7%
TOTAL	318.8	100.0%		
9	Characteristics	Area 9 is designated for Low Density Housing Area. The actual land use is 57% of Low density housing and 31% of Seasonable agriculture/Agri-mix. Another characteristic of this area is Commercial use (as for Hotel Complex/Guest Houses/Lodge) and Sport stadium which are total 6%.		
10	Future Emerging Structure and Development Direction	Area 9 is typical low density housing area, and it has a good urban environment with good streetscape of colonial style mansions. On the other hand, Commercial developments are taking place in some parts. In future, it is important to reclassify the area into a quiet residential zone and a high-touch upmarket commercial zones.		

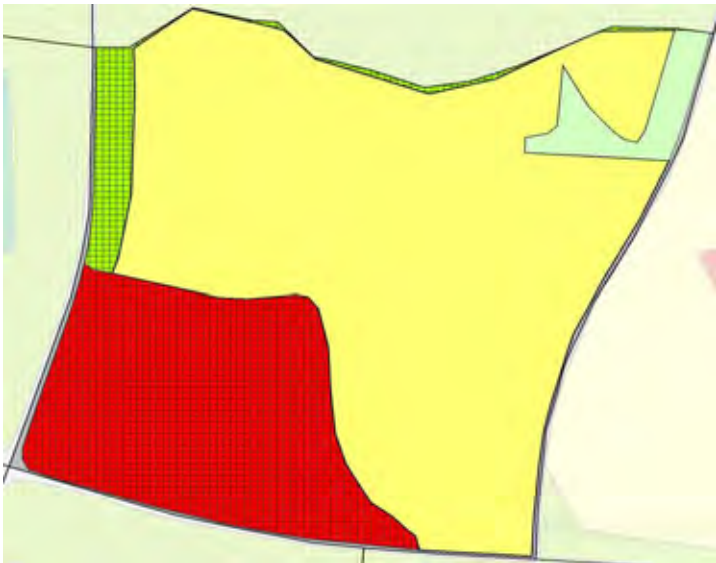
Area 10

1	Urban Zone	Nyama	
2	Land Ownership	Ministry of Lands	
3	Area (ha)	Official	403.0
		Actual	384.4
4	Nos of Population	in 1988	3,987
		in 2008	3,220
		Pop Growth Rate% 1988-2008	-2.10
5	Population Density (/ha)	in 1988 (Actual)	10
		in 2008 (Actual)	8
6	Nos of Unplanned Settlement Population	Nos of Village	-
		Nos of Population in 1987	-
		Nos of Population in 2005	-
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Low Density Housing	384.4
		TOTAL	384.4
8	Actual Landuse (ha) (as of August, 2009)	Low density housing	308.38 80.2%
		Seasonal agriculture/Agri-mix	34.39 8.9%
		Rivers and Dambo	26.71 6.9%
		Primary & Secondary Education	6.68 1.7%
		Informal Settlements	5.19 1.4%
		District Distributor Road	2.45 0.6%
		Others	0.63 0.2%
		TOTAL	384.4 100.0%
9	Characteristics	Area 10 is just next to Capital Hill. It has good access to City Center. Area 10 is designated for Low Density Housing. 80% of the area is actually used as Low density housing. Informal settlements are existing (about 5 ha), although it occupies a very small percentage..	
10	Future Emerging Structure and Development Direction	Since it has good access to government offices and retail/service facilities in city centers, some parts of the areas are likely to be developed as highdensity residential area (multi-storied flat buildings) or as mixed use of commercial and residential.	



Area 11






1	Urban Zone	City Centre		
2	Land Ownership	Ministry of Lands		
3	Area (ha)	Official	43.0	
		Actual	51.7	
4	Nos of Population	in 1988		
		in 2008	954	
		Pop Growth Rate% 1988-2008	-1.20	
5	Population Density (/ha)	in 1988 (Actual)	21	
		in 2008 (Actual)	18	
6	Nos of Unplanned Settlement Population	Nos of Village	-	
		Nos of Population in 1987	-	
		Nos of Population in 2005	-	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Medium Density Housing	51.7	
		TOTAL	51.7	
8	Actual Landuse (ha) (as of August, 2009)	Low density housing	33.88	65.5%
		Hotel Complex/Guest Houses/Lodges	13.20	25.5%
		Woodland	1.93	3.7%
		Seasonal agriculture/Agri-mix	1.71	3.3%
		District Distributor Road	0.98	1.9%
		TOTAL	51.7	100.0%
9	Characteristics	Area 11 has very good access condition to City Centre. Area 11 is designated as Medium Density Housing. Actually, major land use of this area can be classified as low density (65.5%). Hotel Complex/Guest Houses/Lodge (25.5%) is also existing in this area. Namely, Capital Hotel. It is one of the most luxurious hotel in Lilongwe City.		
10	Future Emerging Structure and Development Directions	As this area has good physical environment, surrounded by abundant nature, this area will continue to play the role of accommodating such luxurious hotels, guest houses, high-rise flat buidings and even commercial mixed development. The importance is to preserve abundant nature simultaneously with such developments.		


Area 12

1	Urban Zone	Nyama		
2	Land Ownership	Ministry of Lands		
3	Area (ha)	Official	211.0	
		Actual	271.6	
4	Nos of Population	in 1988	2,629	
		in 2008	2,321	
		Pop Growth Rate% 1988-2008	-1.20	
5	Population Density (/ha)	in 1988 (Actual)	10	
		in 2008 (Actual)	9	
6	Nos of Unplanned Settlement Population	Nos of Village	-	
		Nos of Population in 1987	-	
		Nos of Population in 2005	-	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Low Density Housing	271.6	
		TOTAL	271.6	
8	Actual Landuse (ha) (as of August, 2009)	Low density housing	224.07	82.5%
		Woodland	29.92	11.0%
		Primary & Secondary Education	6.08	2.2%
		Seasonal agriculture/Agri-mix	3.75	1.4%
		Other Open Areas	3.58	1.3%
		Horticulture (Flower, Fruits etc.)	1.20	0.4%
		Others	2.96	1.1%
TOTAL	271.6	100.0%		
9	Characteristics	Area 12 is very closely located to City Centre. The area was designated as Low Density Housing, and actually over 80% of this area is used as Low Density Housing. Approx. 11% is occupied by Woodland. This area is also typical low density housing area with good atmosphere and natural environment.		
10	Future Energing Structures and Development Directions	It is of great importance to preserve good urban environment in this area. High class residential developments or low-rise upmarket shopping complex development is very likely to take place. With multi-storied flat buildings, the population density is expected to increase, keeping good environment intact.		


Area 13

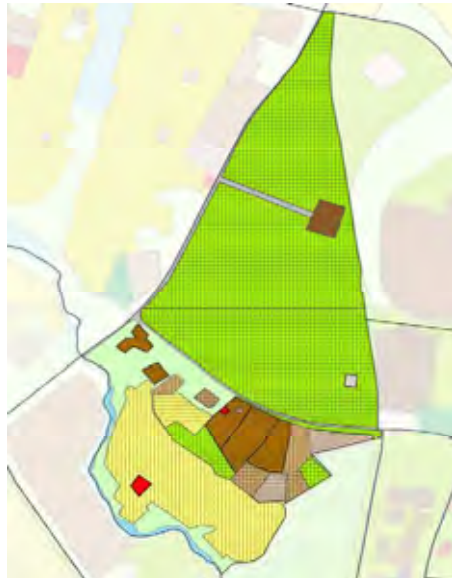




1	Urban Zone	City Centre		
2	Land Ownership	Ministry of Lands		
3	Area (ha)	Official	153.0	
		Actual	32.5	
4	Nos of Population	in 1988	37	
		in 2008	25	
		Pop Growth Rate% 1988-2008	-3.80	
5	Population Density (/ha)	in 1988 (Actual)	1	
		in 2008 (Actual)	1	
6	Nos of Unplanned Settlement Population	Nos of Village	-	
		Nos of Population in 1987	-	
		Nos of Population in 2005	-	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Commercial	32.5	
		TOTAL	32.5	
8	Actual Landuse (ha) (as of August, 2009)	Civic Center	16.71	51.5%
		Woodland	14.83	45.7%
		District Distributor Road	0.91	2.8%
		TOTAL	32.5	100.0%
9	Characteristics	Area 13 is located in City Centre. It is designated as Commercial area. At present, the predominant land use is Governmental office buildings (Civic Center, 52%) and another major land use is Woodland (46%).		
10	Future Emerging Structure and Development Directions.	MoLHUD is now implementing commercial infrastructure developments in Area 13.(roads, drains, water supply, electricity etc.) The urban development potentiality wii increase. It is important to keep in mind that the world-famous business centers are equipped with big urban parks. We should also make big urban parks adjacent to office area.		


Area 14

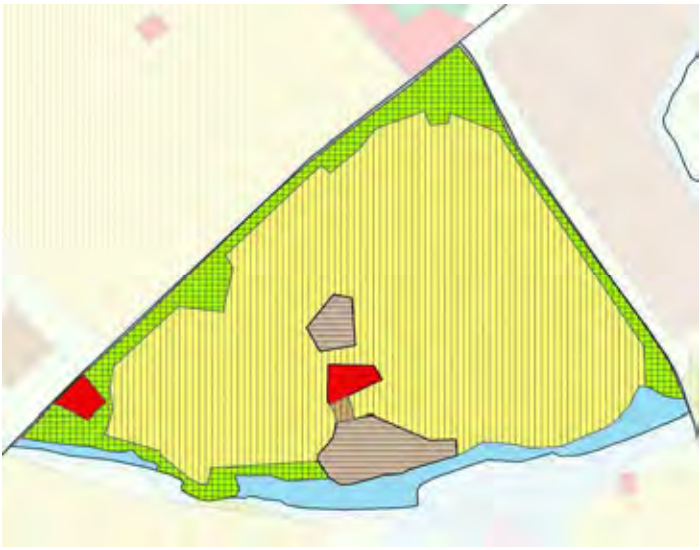





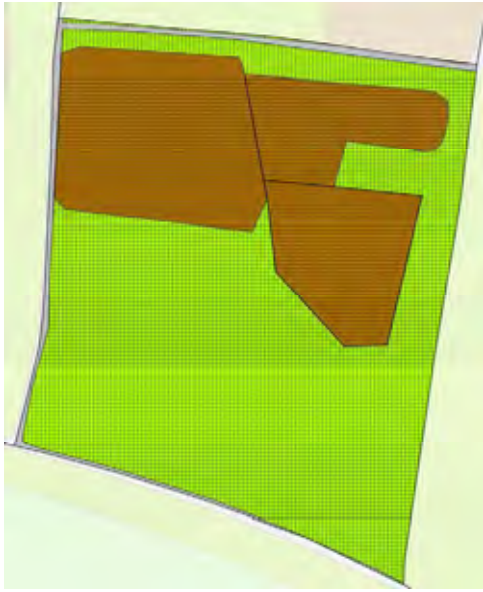
1	Urban Zone	City Centre		
2	Land Ownership	Ministry of Lands		
3	Area (ha)	Official	142.0	
		Actual	200.0	
4	Nos of Population	in 1988	861	
		in 2008	1,154	
		Pop Growth Rate% 1988-2008	3.00	
5	Population Density (/ha)	in 1988 (Actual)	4	
		in 2008 (Actual)	6	
6	Nos of Unplanned Settlement Population	Nos of Village	4	
		Nos of Population in 1987	1,283	
		Nos of Population in 2005	4,337	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Undetermined Land	118.7	59.3%
		Medium Density Housing	81.4	40.7%
		TOTAL	200.0	100.0%
8	Actual Landuse (ha) (as of August, 2009)	Woodland	118.62	59.3%
		Medium density housing	30.24	15.1%
		Seasonal agriculture/Agri-mix	16.64	8.3%
		Civic Center	10.98	5.5%
		District Distributor Road	4.67	2.3%
		Primary & Secondary Education	3.76	1.9%
		Others	15.12	7.6%
TOTAL	200.0	100.0%		
9	Characteristics	Area 14 is just adjacent to Capital Hill. Area 14 is designated as 40% of Medium Density Housing Area and 60% of Undetermined Area. The actual situation is 60% of Wood land and 15% of Medium density housing. The 2005 survey data shows that 4 unplanned settlementexisted therein with over 4,000 population.		
10	Future Emerging Structure and Development Directions	There remains a vast area of woodlands. Since the woodland is a very valuable land to be desiganted as undetermined. This will be future valuabloe land for urban renewal/redevelopment for City Center.		

Area 15

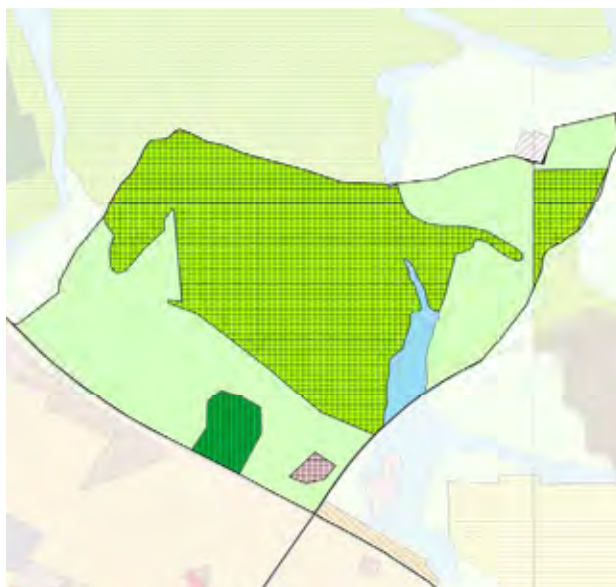




1	Urban Zone	Old Town		
2	Land Ownership	Malawi Housing Corporation		
3	Area (ha)	Official	71.0	
		Actual	91.9	
4	Nos of Population	in 1988	1,872	
		in 2008	1,544	
		Pop Growth Rate% 1988-2008	-1.90	
5	Population Density (/ha)	in 1988 (Actual)	20	
		in 2008 (Actual)	17	
6	Nos of Unplanned Settlement Population	Nos of Village	-	
		Nos of Population in 1987	-	
		Nos of Population in 2005	-	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Medium Density Housing	91.9	
		TOTAL	91.9	
8	Actual Landuse (ha) (as of August, 2009)	Medium density housing	65.55	71.3%
		Woodland	12.63	13.7%
		Rivers and Dambo	6.52	7.1%
		Primary & Secondary Education	4.38	4.8%
		Small Commercial Area	1.45	1.6%
		District Distributor Road	1.17	1.3%
		Others	0.21	0.2%
TOTAL	91.9	100.0%		
9	Characteristics	Area 15 has good access to both City Centre and Old Town. Area 15 is designated as Medium Density Housing, and over 70% of this area is actually used as Medium Density Housing,. Another major land use is Woodland (14%).		
10	Future Emerging Structure and Development Directions	This area shall be kept as good residential area, preserving the woodland and water bodies (rivers and dambo) for environmental protection. High-density falt developments are likely to take place in view of strengthening land use density. Some small scale commercial development can be allowed for convenience of residents and surrounding people.		

<h1>Area 16</h1> 			
1	Urban Zone	City Centre	
2	Land Ownership	Ministry of Lands	
3	Area (ha)	Official	-
		Actual	81.2
4	Nos of Population	in 1988	0
		in 2008	0
		Pop Growth Rate% 1988-2008	0.00
5	Population Density (/ha)	in 1988 (Actual)	0
		in 2008 (Actual)	0
6	Nos of Unplanned Settlement Population	Nos of Village	-
		Nos of Population in 1987	-
		Nos of Population in 2005	-
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Commercial	81.2
		TOTAL	81.2
8	Actual Landuse (ha) (as of August, 2009)	Woodland	62.12 76.5%
		Civic Center	12.50 15.4%
		Hotel Complex/Guest Houses/Lodges	2.80 3.4%
		District Distributor Road	2.00 2.5%
		Small Commercial Area	1.82 2.2%
		TOTAL	81.2 100.0%
9	Characteristics	Area 16 is in City Center. Area 16 is designatd as Commercial area. The largest land use is still Green areas (Woodland, 77%), and another major land use is Governmental use (Civic Center, 15%).	
10	Future Emerging Structure and Development Directions	It is deemed as essential to harmonize green and commercial development area. In order to increase value of good office area, nature preservation is of great importance. Tokyo, NY, London has big parks or greenery in City Center.	

Area 17





1	Urban Zone	City Centre	
2	Land Ownership	Ministry of Lands	
3	Area (ha)	Official	149.0
		Actual	151.2
4	Nos of Population	in 1988	0
		in 2008	4
		Pop Growth Rate% 1988-2008	0.00
5	Population Density (/ha)	in 1988 (Actual)	0
		in 2008 (Actual)	0
6	Nos of Unplanned Settlement Population	Nos of Village	-
		Nos of Population in 1987	-
		Nos of Population in 2005	-
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Medium Density Housing	151.2
		TOTAL	151.2
8	Actual Landuse (ha) (as of August, 2009)	Woodland	73.99 48.9%
		Seasonal agriculture/Agri-mix	67.23 44.5%
		Sport stadium	4.32 2.9%
		Rivers and Dambo	4.22 2.8%
		Others (Telecommunication Tower, Fire St. et	0.90 0.6%
		District Distributor Road	0.48 0.3%
		Others	0.04 0.0%
		TOTAL	151.2 100.0%
9	Characteristics	This area is still undeveloped, although it has good location interms of access to Old Town as well as City Centre. Area 17 is designated as Medium Density Housing area. The major land use of this area is occupied by woodland (49%) and another half is Seasonal agriculture/Agri-mix.	
10	Future Emerging Structure and Environment	In future, it will be developed. However, since it is closely located to nature sanctuary, environmental preservation is high priority. Taking a look at the southern parts facing the area 7 (THA), infomal settlement may encroach. Due attention shall be paid to prevent such undesirable development. Only strategic development will be allowed.	

Area 18

1	Urban Zone	Chimutu		
2	Land Ownership	Malawi Housing Corporation, Ministry of Lands		
3	Area (ha)	Official	214.0	
		Actual	260.7	
4	Nos of Population	in 1988	18,677	
		in 2008	13,438	
		Pop Growth Rate% 1988-2008	-2.30	
5	Population Density (/ha)	in 1988 (Actual)	72	
		in 2008 (Actual)	52	
6	Nos of Unplanned Settlement Population	Nos of Village	-	
		Nos of Population in 1987	-	
		Nos of Population in 2005	-	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	High Density Permanent Housing	238.9	91.6%
		Open Space	21.8	8.4%
		-----TOTAL-----		260.7
8	Actual Landuse (ha) (as of August, 2009)	Medium density housing	138.03	52.9%
		Seasonal agriculture/Agri-mix	72.22	27.7%
		Rivers and Dambo	17.95	6.9%
		Religious Building/Centre/Institutes	11.93	4.6%
		Primary & Secondary Education	11.00	4.2%
		District Distributor Road	3.21	1.2%
		Others	6.36	2.4%
-----TOTAL-----		260.7	100.0%	
9	Characteristics	Area 18 is convenient to commute to City Centre. Area 18 is designated as 90%: High Density Permanent Housing and 10%: Open Space area. The actual situation is 50% of Medium density housing and 30% of Seasonable agriculture/Agri-mix. Another main land use is Rivers and Dambo (Open space).		
10	Future Emerging Structure and Development Directions	It is important to keep and improve good residential environment. Probably small scale commercial development is likely to happen, as long as residential environment quality is not badly influenced.		


Area 19






1	Urban Zone	City Centre	
2	Land Ownership	Ministry of Lands	
3	Area (ha)	Official	-
		Actual	30.3
4	Nos of Population	in 1988	0
		in 2008	0
		Pop Growth Rate% 1988-2008	0.00
5	Population Density (/ha)	in 1988 (Actual)	0
		in 2008 (Actual)	0
6	Nos of Unplanned Settlement Population	Nos of Village	-
		Nos of Population in 1987	-
		Nos of Population in 2005	-
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Commercial	30.3
		TOTAL	30.3
8	Actual Landuse (ha) (as of August, 2009)	Woodland	14.22 47.0%
		Civic Center	13.55 44.8%
		District Distributor Road	0.93 3.1%
		Small Commercial Area	0.62 2.0%
		Hotel Complex/Guest Houses/Lodges	0.58 1.9%
		Large Commercial Area	0.35 1.2%
		TOTAL	30.3 100.0%
9	Characteristics	Civic Center exists in Area 19. Area 19 is designated as Commercial area. The whole built-up area of Area 19 is Civic Center. Civic Center occupies 45% of the Area 19. Alomost the same land area (47%) is occupied by woodlands. There are 16 high-rise office buildings. The greenery space is functioning as inter-access space among them.	
10	Future Emerging Structure and Development Direction	To date, this is the only one place for high-rise office business center area in Lilongwe City. If the Government's intention to strengthen Lilongwe City by concentrating the capital city functions is successfully achieved, this business center will prosper. Construction boom will continue.	

Area 20






1	Urban Zone	City Centre		
2	Land Ownership	Ministry of Lands		
3	Area (ha)	Official	286.0	
		Actual	130.2	
4	Nos of Population	in 1988	0	
		in 2008	14	
		Pop Growth Rate% 1988-2008	0.00	
5	Population Density (/ha)	in 1988 (Actual)	0	
		in 2008 (Actual)	0	
6	Nos of Unplanned Settlement Population	Nos of Village	-	
		Nos of Population in 1987	-	
		Nos of Population in 2005	-	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Government	130.2	
		TOTAL	130.2	
8	Actual Landuse (ha) (as of August, 2009)	Woodland	52.81	40.6%
		Capital Hill	48.75	37.4%
		Seasonable agriculture/Agri-mix	22.39	17.2%
		Water Treatment Plant	2.32	1.8%
		Higher Education	2.08	1.6%
		District Distributor Road	1.65	1.3%
		Others	0.22	0.2%
TOTAL	130.2	100.0%		
9	Characteristics	Capital Hill exists in Area 20. Area 20 is designated as Governmental use. In fact, 37% of the area is now used as Governmental use (Capital Hill). The rest of the land is mostly Woodland (40%) and Seasonal agriculture/Agri-mix (17%).		
10	Future Emerging Structure and Development Direction	There are proposals to build additional offices in the Capital Hill in order to accommodate the new offices to be relocated from the other cities to Lilongwe City. Area 20 is now one of the promising site for the new comer government offices.		


Area 21



1	Urban Zone	Old Town	
2	Land Ownership	Lillongwe City Assembly	
3	Area (ha)	Official	363.0
		Actual	408.2
4	Nos of Population	in 1988	35,314
		in 2008	44,965
		Pop Growth Rate% 1988-2008	2.40
5	Population Density (/ha)	in 1988 (Actual)	87
		in 2008 (Actual)	110
6	Nos of Unplanned Settlement Population	Nos of Village	-
		Nos of Population in 1987	-
		Nos of Population in 2005	-
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	High Density Housing Traditional	408.2
		TOTAL	408.2
8	Actual Landuse (ha) (as of August, 2009)	High density traditional housing	296.61 72.7%
		High density permanent housing	42.06 10.3%
		Primary & Secondary Education	17.19 4.2%
		Cemetery	11.78 2.9%
		Informal Settlements	11.65 2.9%
		Religious Building/Centre/Institutes	9.75 2.4%
		Others	19.16 4.7%
		TOTAL	408.2 100.0%
9	Characteristics	Area 21 is designated as High Density Housing Traditional. As a matter of fact, over 70% of the area is used as THA. High density permanent housing area is also existing (10%). Informal Settlements have recently begun to encroach in this area.	
10	Development Needs & Plan	There is a strong risk that informal sub-division will rampantly take place in this area, because Area 21 is mostly THA, as well as because Area 21 has advatage for good access to Old Town and City Centre. The improvement and upgrading for such excessive sub-division will be in strong demand.	


Area 22






1	Urban Zone	Ngwenya		
2	Land Ownership	Lilongwe City Assembly		
3	Area (ha)	Official	369.0	
		Actual	373.6	
4	Nos of Population	in 1988	19,622	
		in 2008	29,390	
		Pop Growth Rate% 1988-2008	4.10	
5	Population Density (/ha)	in 1988 (Actual)	53	
		in 2008 (Actual)	79	
6	Nos of Unplanned Settlement Population	Nos of Village	-	
		Nos of Population in 1987	-	
		Nos of Population in 2005	-	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	High Density Housing Traditional	373.6	
		TOTAL	373.6	
8	Actual Landuse (ha) (as of August, 2009)	High density traditional housing	152.91	40.9%
		Informal Settlements	146.73	39.3%
		Primary & Secondary Education	15.98	4.3%
		Rivers and Dambo	15.10	4.0%
		Higher Education	10.31	2.8%
		Light & Service Industry	8.24	2.2%
		Others	24.37	6.5%
TOTAL	373.6	100.0%		
9	Characteristics	Area 22 is THA. Area 22 is designated as High Density Housing Traditional. The current situation is that a half is formal THA and another half has already become informal by informal sub-division.		
10	Future Emerging Structure and Development Direction	The encroachment of informal multi-subdivision has substantially taken place in Area 22. The upgrading and improvement for the bad living conditions in such multi-subdivision in one plot will be desperately needed.		


Area 23

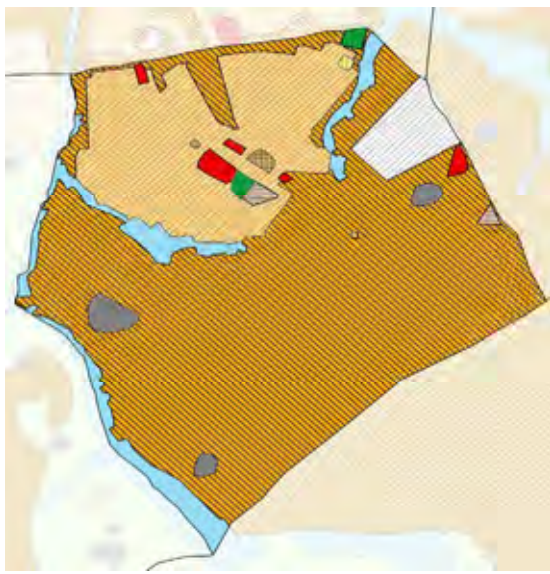




1	Urban Zone	Ngwenya		
2	Land Ownership	Lilongwe City Assembly		
3	Area (ha)	Official	401.0	
		Actual	502.6	
4	Nos of Population	in 1988	33,664	
		in 2008	45,779	
		Pop Growth Rate% 1988-2008	3.10	
5	Population Density (/ha)	in 1988 (Actual)	67	
		in 2008 (Actual)	91	
6	Nos of Unplanned Settlement Population	Nos of Village	2	
		Nos of Population in 1987	799	
		Nos of Population in 2005	2,701	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	High Density Housing Traditional	502.6	
		TOTAL	502.6	
8	Actual Landuse (ha) (as of August, 2009)	Informal Settlements	258.13	51.4%
		High density traditional housing	173.59	34.5%
		Rivers and Dambo	35.16	7.0%
		Other Open Areas	8.54	1.7%
		Higher Education	7.71	1.5%
		Primary & Secondary Education	6.60	1.3%
		Others	12.87	2.6%
TOTAL	502.6	100.0%		
9	Characteristics	Informal settlements are rampantly growing Area 23. Area 23 is designated as High Density Housing Traditional. As in the case of the other THA area, multi-subdivision is taking place massively. Informal Settlement currently occupies 51% of the land area.		
10	Future Emerging Structure and Development Direction	As is the case of the other THA, how to prevent rampant growth of informal multi-subdivision is very important. Strenuous effort should be made in order to upgrade and improve the living condition of such informally multi-subdivided plots.		

Area 24




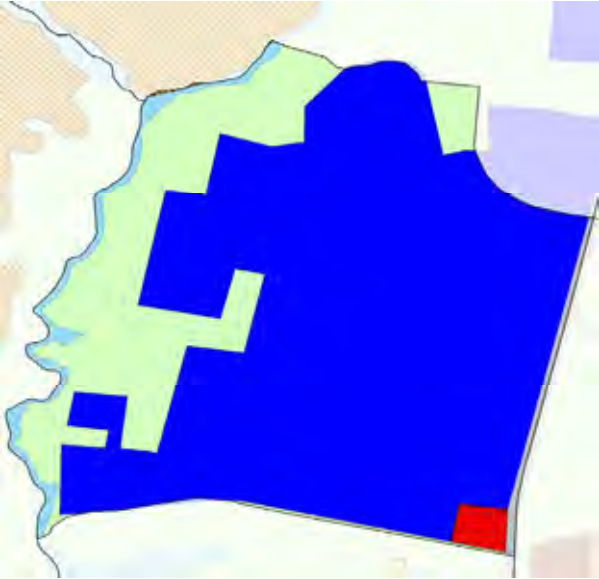



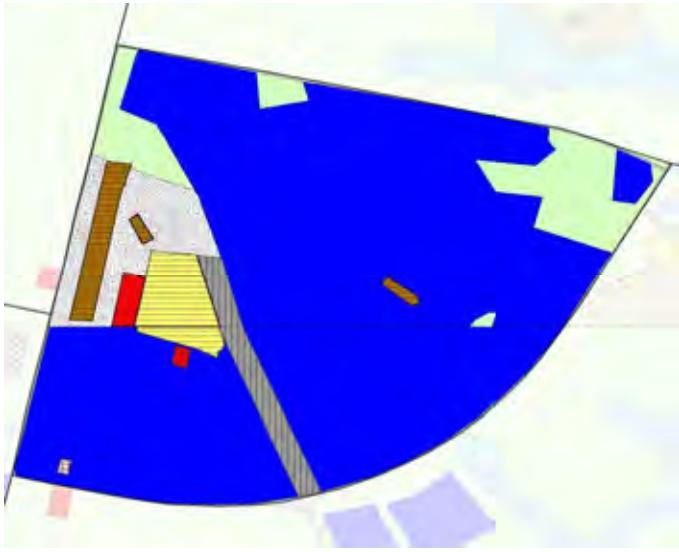
1	Urban Zone	Ngwenya		
2	Land Ownership	Lilongwe City Assembly		
3	Area (ha)	Official	230.0	
		Actual	380.3	
4	Nos of Population	in 1988	13,602	
		in 2008	23,944	
		Pop Growth Rate% 1988-2008	5.80	
5	Population Density (/ha)	in 1988 (Actual)	36	
		in 2008 (Actual)	63	
6	Nos of Unplanned Settlement Population	Nos of Village	2	
		Nos of Population in 1987	2,474	
		Nos of Population in 2005	8,362	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	High Density Housing Traditional	380.3	
		TOTAL	380.3	
8	Actual Landuse (ha) (as of August, 2009)	Informal Settlements	251.47	66.1%
		High density traditional housing	79.31	20.9%
		Rivers and Dambo	22.90	6.0%
		Rocks, Quarry	12.92	3.4%
		Cemetery	5.16	1.4%
		Small Commercial Area	3.61	0.9%
		Others	4.90	1.3%
TOTAL	380.3	100.0%		
9	Characteristics	The serious issue of Area 24 is also informal settlements. Area 24 is designated as High Density Housing Traditional. Since several houses have been built in one land plot, the living condition is getting worse due to such multi-subdivision. Informal settlements currently occupies 67% of the land of the area.		
10	Future Emerging Structure and Development Direction	The urban issue of Area 24 is also rampant growth of informal settlements. The improvement and upgrading of the informal settlements will be first priority issue.		

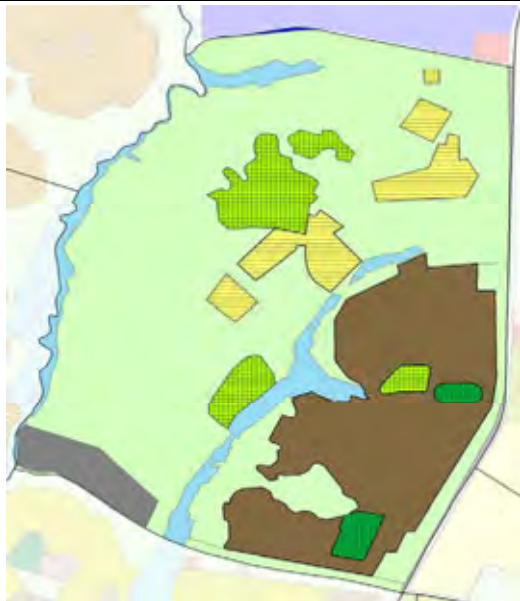
Area 27


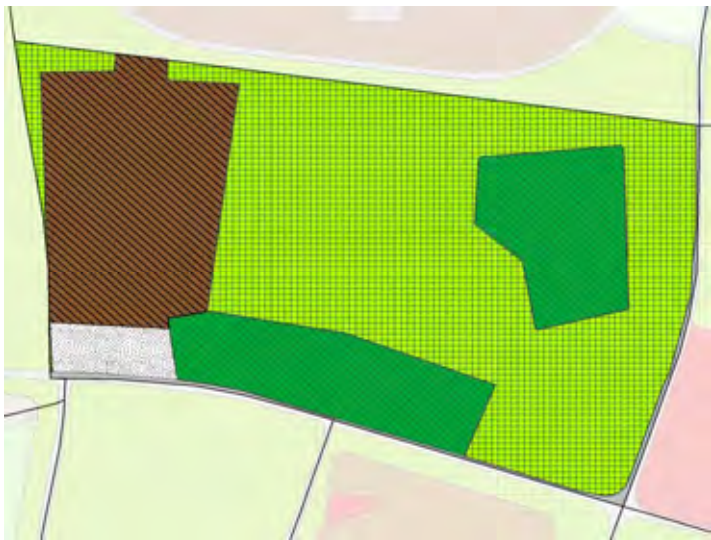



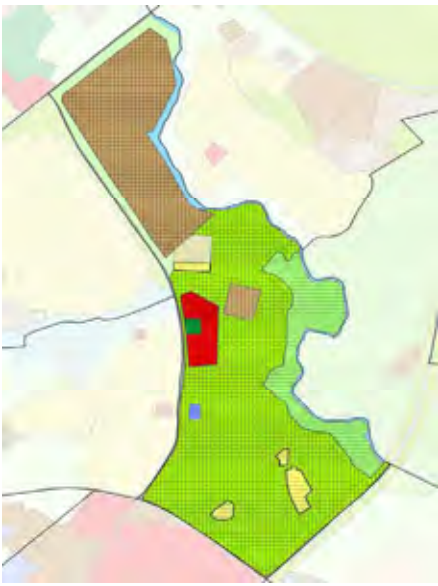
1	Urban Zone	Mvunguti		
2	Land Ownership	Ministry of Lands, Lilongwe City Assembly		
3	Area (ha)	Official	574.0	
		Actual	636.0	
4	Nos of Population	in 1988	1,434	
		in 2008	2,249	
		Pop Growth Rate% 1988-2008	4.60	
5	Population Density (/ha)	in 1988 (Actual)	2	
		in 2008 (Actual)	4	
6	Nos of Unplanned Settlement Population	Nos of Village	3	
		Nos of Population in 1987	854	
		Nos of Population in 2005	2,886	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Low Density Housing	261.1	41.1%
		High Density Housing Traditional	187.3	29.4%
		Others	187.6	29.5%
		TOTAL	636.0	100.0%
8	Actual Landuse (ha) (as of August, 2009)	Seasonal agriculture/Agri-mix	545.54	85.8%
		Indigenous Village	34.32	5.4%
		Rivers and Dambo	23.84	3.7%
		Higher Education	7.25	1.1%
		Water Treatment Plant	6.36	1.0%
		Hospitals/Health/Clinics	4.92	0.8%
		Others	13.76	2.2%
		TOTAL	636.0	100.0%
9	Characteristics	Area 27 is located substantially far from the central part of Lilongwe City. One hospital (Korean Religious Body established) and one higher education institute exist in Aea 27. Area 27 is designated mostly as Residential(41%: Low Density Housing and 30%: High Density Housing Traditional). This area is still open space (86%).		
10	Development Needs & Plan	Kanengo Northgate Development Project is encompassing on Area 27 as well as Area 26. Since housing market demand around here is not so strong, it will take still much time for urbanization to extend to Area 27.		

<h1>Area 28</h1> 			
1	Urban Zone	Kanengo	
2	Land Ownership	Ministry of Lands	
3	Area (ha)	Official	252.0
		Actual	148.7
4	Nos of Population	in 1988	321
		in 2008	48
		Pop Growth Rate% 1988-2008	-9.00
5	Population Density (/ha)	in 1988 (Actual)	2
		in 2008 (Actual)	4
6	Nos of Unplanned Settlement Population	Nos of Village	1
		Nos of Population in 1987	6
		Nos of Population in 2005	20
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Industry	148.7
		TOTAL	148.7
8	Actual Landuse (ha) (as of August, 2009)	Heavy/Large Scale industry	107.87 72.5%
		Seasonal agriculture/Agri-mix	33.94 22.8%
		Rivers and Dambo	3.83 2.6%
		Small Commercial Area	1.52 1.0%
		District Distributor Road	1.48 1.0%
		Informal Settlements	0.07 0.0%
		TOTAL	148.7 100.0%
9	Characteristics	Area 28 is place for industrial location. Area 28 is designated as Industry. Over 70% of this area is actually used as Heavy/Large Scale industry at present. Another major land use is Seasonal agriculture/Agri-mix (23%).	
10	Future Emerging Structure and Development Direction	Since this area is designated for heavy, large-scale, capital intensive industries, it is hoped to attract such industries. At present, even if it may be called "industries", the real function is mostly just "repackaging". It is hoped to attract real "manufacturing" function.	

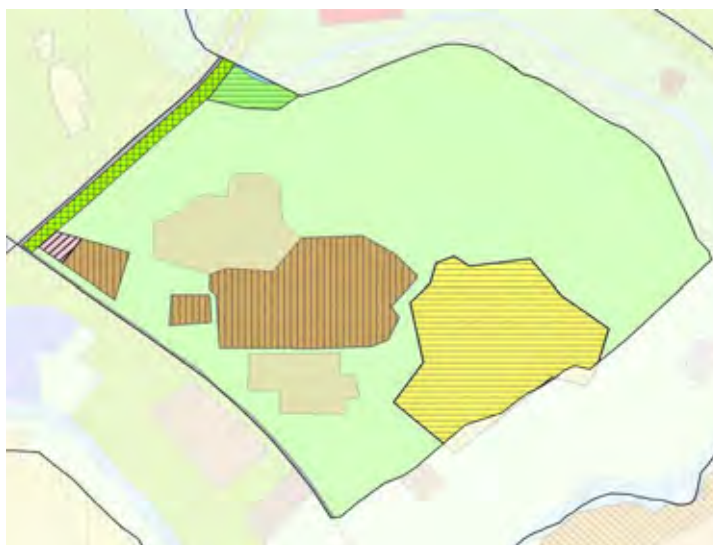
<h1>Area 29</h1> 			
1	Urban Zone	Kanengo	
2	Land Ownership	Ministry of Lands	
3	Area (ha)	Official	244.0
		Actual	263.6
4	Nos of Population	in 1988	658
		in 2008	547
		Pop Growth Rate% 1988-2008	-1.80
5	Population Density (/ha)	in 1988 (Actual)	2
		in 2008 (Actual)	2
6	Nos of Unplanned Settlement Population	Nos of Village	1
		Nos of Population in 1987	772
		Nos of Population in 2005	2,609
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Industry	263.6
		TOTAL	263.6
8	Actual Landuse (ha) (as on August, 2009)	Heavy/Large Scale industry	199.21 75.6%
		Seasonal agriculture/Agri-mix	22.39 8.5%
		Other Open Areas	14.93 5.7%
		Institutional Housing	8.31 3.2%
		Railway Station	7.36 2.8%
		Civic Center	5.71 2.2%
		Others	5.67 2.1%
		TOTAL	263.6 100.0%
9	Characteristics	Area 29 is also a part of Kanengo Industrial Zone. Area 29 is designated as industry, and over 75% of this area is actually used as Heavy/Large Scale industry. Another major land use is Seasonable agriculture/Agri-mix (8.5%).	
10	Future Emerging Structure and Development Direction	Since this area is designated for heavy, large-scale, capital intensive industries, it is hoped to attract such industries. At present, even if it may be called "industries", the real function is mostly just "repackaging". It is hoped to attract real "manufacturing" function.	

Area 30			
1	Urban Zone	Nyama	
2	Land Ownership	Ministry of Lands	
3	Area (ha)	Official	297.0
		Actual	320.7
4	Nos of Population	in 1988	2,914
		in 2008	2,344
		Pop Growth Rate% 1988-2008	-2.20
5	Population Density (/ha)	in 1988 (Actual)	9
		in 2008 (Actual)	7
6	Nos of Unplanned Settlement Population	Nos of Village	-
		Nos of Population in 1987	-
		Nos of Population in 2005	-
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Institutional (Army, Police, Hospital)	320.7
		TOTAL	320.7
8	Actual Landuse (ha) (as of August, 2009)	Seasonal agriculture/Agri-mix	190.40 59.4%
		Police	65.23 20.3%
		Rivers and Dambo	17.27 5.4%
		Woodland	17.13 5.3%
		Institutional Housing	16.15 5.0%
		Cemetery	8.63 2.7%
		Others	5.85 1.8%
		TOTAL	320.7 100.0%
9	Characteristics	Police Headquarter is located in Area 30. It is designated as Institutional (Army, Police, Hospital). 25% of the land area is used as such institutional by approx. 25%. Police Headquarter is the largest among them 820% of the total land area). As a matter of fact, the most dominant land use is Seasonal agriculture/Agri-mix.	
10	Future Emerging Structure and Development Direction	Since the northern adjacent area is Kanengo Industrial area, it is hoped to keep the open space(Seasonal agriculture/Agri-mix) for the purpose of buffer zone to the industrial zone. The land facing the M1 might be developed as such institutional land use.	

<h1>Area 31</h1> 			
1	Urban Zone	City Centre	
2	Land Ownership	Ministry of Lands	
3	Area (ha)	Official	-
		Actual	52.9
4	Nos of Population	in 1988	0
		in 2008	0
		Pop Growth Rate% 1988-2008	0.00
5	Population Density (/ha)	in 1988 (Actual)	0
		in 2008 (Actual)	0
6	Nos of Unplanned Settlement Population	Nos of Village	-
		Nos of Population in 1987	-
		Nos of Population in 2005	-
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Open Space	52.9
		TOTAL	52.9
8	Actual Landuse (ha) (as on August, 2009)	Woodland	29.20 55.2%
		Park	10.86 20.5%
		Parliament	10.58 20.0%
		Other Open Areas	1.40 2.6%
		District Distributor Road	0.82 1.5%
		TOTAL	52.9 100.0%
9	Characteristics	Area 31 is in City Center, but it is so far just open space. The project of constructing "Parliament" is undergoing. According to the Outline Zoning Scheme, Area 31 is designated as Open Space. At present, Area 31 is not actually used as urban space, but as just open space such as Woodland, Park, and Other Open Areas.	
10	Future Emerging Structure and Development Direction	As shown in the case of "Parliament Project", it will be very probable that some institutional buildings will be constructed somewhere in Area 31. As a matter of fact, the Government is now conceiving to construct "National Arts and Museum" in Area 31 as well. Both projects are under Chinese assistance.	


<h1>Area 32</h1> 			
1	Urban Zone	City Centre	
2	Land Ownership	Ministry of Lands	
3	Area (ha)	Official	128.0
		Actual	135.1
4	Nos of Population	in 1988	247
		in 2008	350
		Pop Growth Rate% 1988-2008	3.50
5	Population Density (/ha)	in 1988 (Actual)	2
		in 2008 (Actual)	3
6	Nos of Unplanned Settlement Population	Nos of Village	-
		Nos of Population in 1987	-
		Nos of Population in 2005	-
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Institutional (Army, Police, Hospital)	135.1
		TOTAL	135.1
8	Actual Landuse (ha) (as on August, 2009)	Woodland	70.89 52.5%
		Religious Building/Centre/Institutes	27.73 20.5%
		Nature Sanctuary	13.71 10.1%
		Seasonal agriculture/Agri-mix	6.17 4.6%
		Rivers and Dambo	3.85 2.8%
		Hotel Complex/Guest Houses/Lodges	3.71 2.7%
		Others	9.07 6.7%
		TOTAL	135.1 100.0%
9	Characteristics	Area 32 is designated as Institutional (Army, Police, Hospital); however, 70% of the area is still undeveloped and kept as Woodland/Nature Sanctuary, then 20% is used as Institutional.	
10	Future Emerging Structure and Development Direction	Under the President's initiative, the Government is now planning to establish New Commercial Center in Area 32. If this project is implemented successfully, the land use of this area will be totally changed. Office buildings, retail commercial buildings, hotels and lodges may be constructed. It is hoped to be mixed with residential.	

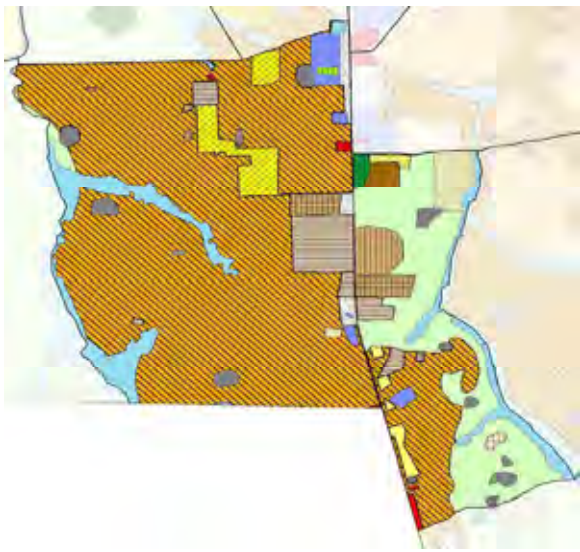
Area 33



1	Urban Zone	City Centre	
2	Land Ownership	Ministry of Lands	
3	Area (ha)	Official	346.0
		Actual	131.7
4	Nos of Population	in 1988	1,938
		in 2008	2,545
		Pop Growth Rate% 1988-2008	2.80
5	Population Density (/ha)	in 1988 (Actual)	15
		in 2008 (Actual)	19
6	Nos of Unplanned Settlement Population	Nos of Village	-
		Nos of Population in 1987	-
		Nos of Population in 2005	-
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Institutional (Army, Police, Hospital)	131.7
		TOTAL	131.7
8	Actual Landuse (ha) (as on August, 2009)	Seasonal agriculture/Agri-mix	83.35 63.3%
		Institutional Housing	16.74 12.7%
		Hospitals/Health/Clinics	14.74 11.2%
		Higher Education	10.70 8.1%
		Woodland	2.59 2.0%
		Nature Sanctuary	1.56 1.2%
		Others	2.05 1.6%
		TOTAL	131.7 100.0%
9	Characteristics	Area 33 is in City Center. Area 33 is designated as Institutional (Army, Police, Hospital). While one third of this area is currently used as Institutional (Hospital, etc.), two third is still open space(Seasonal agriculture/Agri-mix).	
10	Development Needs & Plan	There are three projects in Area 33. Namely, College of Medicine/ Kamuzu College of Nursing/ School of Health Science. The construction work has already commenced. In line with the development trend, such institutional building constructions are likely to take place.	


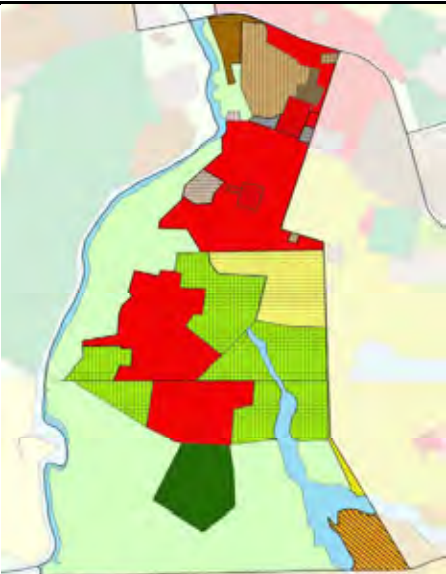
Area 36



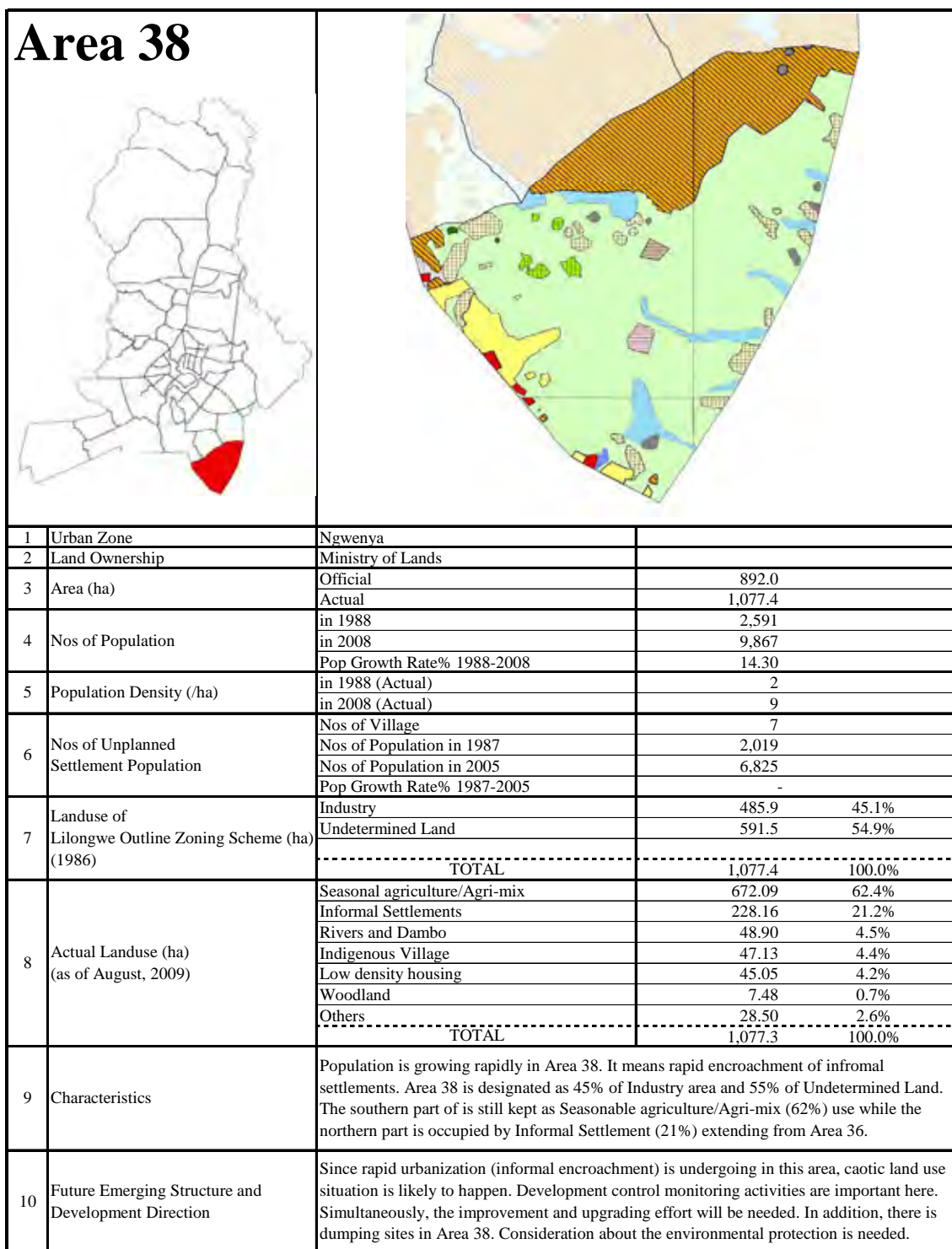


1	Urban Zone	Ngwenya		
2	Land Ownership	Lilongwe City Assembly, Ministry of Lands		
3	Area (ha)	Official	926.0	
		Actual	715.5	
4	Nos of Population	in 1988	16,164	
		in 2008	45,991	
		Pop Growth Rate% 1988-2008	11.00	
5	Population Density (/ha)	in 1988 (Actual)	23	
		in 2008 (Actual)	64	
6	Nos of Unplanned Settlement Population	Nos of Village	8	
		Nos of Population in 1987	7,317	
		Nos of Population in 2005	23,731	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Institutional (Army, Police, Hospital)	293.6	41.0%
		Agriculture	192.8	26.9%
		Others	229.0	32.0%
		TOTAL	715.5	100.0%
8	Actual Landuse (ha) (as of August, 2009)	Informal Settlements	442.66	61.9%
		Seasonal agriculture/Agri-mix	96.13	13.4%
		Rivers and Dambo	45.80	6.4%
		Primary & Secondary Education	28.23	3.9%
		High density permanent housing	19.36	2.7%
		Cemetery	13.04	1.8%
		Others	70.26	9.8%
		TOTAL	715.5	100.0%
9	Characteristics	Area 36 is located in the place of strongest urbanization axis. Although it is designated as 41% of Institutional and 27% of Agriculture, this area is dominantly occupied by Informal Settlement (62%). Informal Settlements of Area 36 is the largest existence in Lilongwe City in terms of land area and as well as population.		
10	Future Emerging Structure and Development Direction	We cannot ignore such overwhelming existence of informal settlements. The main direction is to upgrade and improve the conditions, even if they may be informal. It is important to regularize rather than to eliminate.		


Area 37





1	Urban Zone	Old Town		
2	Land Ownership	Ministry of Lands		
3	Area (ha)	Official	193.0	
		Actual	222.9	
4	Nos of Population	in 1988	0	
		in 2008	567	
		Pop Growth Rate% 1988-2008	-	
5	Population Density (/ha)	in 1988 (Actual)	0	
		in 2008 (Actual)	3	
6	Nos of Unplanned Settlement Population	Nos of Village	2	
		Nos of Population in 1987	1,414	
		Nos of Population in 2005	4,779	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Undetermined Land	83.7	37.5%
		Industry	139.2	62.5%
		TOTAL	222.9	100.0%
8	Actual Landuse (ha) (as of August, 2009)	Seasonal agriculture/Agri-mix	83.90	37.6%
		Mixed Commercial Area	45.02	20.2%
		Woodland	32.71	14.7%
		Rivers and Dambo	14.67	6.6%
		Institutional Housing	10.71	4.8%
		Poultry farm/Dairy farm	9.10	4.1%
		Others	26.74	12.0%
TOTAL	222.9	100.0%		
9	Characteristics	Area 37 includes various land use category. It is designated as 63% of Industry area and 38% of Undetermined Land. The actual land use is really various: Mixed Commercial, Institutional Housing, and Poultry farm/Dairy farm, etc.		
10	Future Emerging Structure and Development Direction	Since Area 37 has good access location to Old Town, it will have various land use possibilities. It is in very close distance with bus terminal and central market. Mixed commercial developments are now undergoing by Malawi Housing's effort. (commercial/light industry/residence).		




Area 39






1	Urban Zone	Kanengo		
2	Land Ownership	Lilongwe City Assembly, Ministry of Lands		
3	Area (ha)	Official	363.0	
		Actual	374.4	
4	Nos of Population	in 1988	3,886	
		in 2008	4,789	
		Pop Growth Rate% 1988-2008	2.10	
5	Population Density (/ha)	in 1988 (Actual)	10	
		in 2008 (Actual)	13	
6	Nos of Unplanned Settlement Population	Nos of Village	4	
		Nos of Population in 1987	2,209	
		Nos of Population in 2005	7,466	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	High Density Housing Traditional	244.9	65.4%
		Industry	129.5	34.6%
		----- TOTAL -----		374.4
8	Actual Landuse (ha) (as of August, 2009)	Seasonal agriculture/Agri-mix	265.34	70.9%
		Indigenous Village	49.47	13.2%
		Rivers and Dambo	22.13	5.9%
		Heavy/Large Scale industry	20.50	5.5%
		District Distributor Road	7.50	2.0%
		Cemetery	4.05	1.1%
		Others	5.43	1.4%
----- TOTAL -----		374.4	100.0%	
9	Characteristics	Area 39 is just next to factory zone of Kanengo. Although Area 39 is designated as 65% of High Density Housing Traditional and 34% of Industry. 5.5% of land is used as Heavy/Large Scale industry; a part of Heavy Industry of adjoining Area 29 is scattered in this area.		
10	Future Emerging Structure and Development Direction	If the factory zones of Kanengo expands in near future, this area will be one of the candidate areas to accommodate the expansion.		

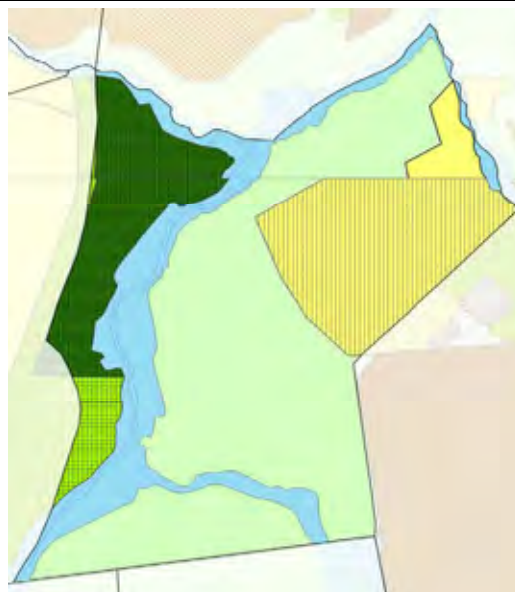
Area 40




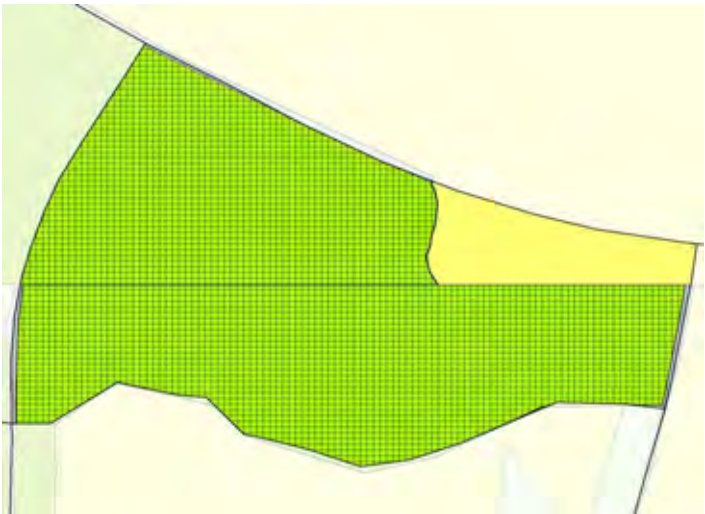


1	Urban Zone	City Centre	
2	Land Ownership	Ministry of Lands	
3	Area (ha)	Official	-
		Actual	42.3
4	Nos of Population	in 1988	0
		in 2008	8
		Pop Growth Rate% 1988-2008	0.00
5	Population Density (/ha)	in 1988 (Actual)	0
		in 2008 (Actual)	0
6	Nos of Unplanned Settlement Population	Nos of Village	-
		Nos of Population in 1987	-
		Nos of Population in 2005	-
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Commercial	42.3
		TOTAL	42.3
8	Actual Landuse (ha) (as of August, 2009)	Woodland	29.79 70.4%
		Civic Center	6.46 15.3%
		Diplomat Area	4.25 10.1%
		District Distributor Road	1.63 3.9%
		Large Commercial Area	0.11 0.3%
		Small Commercial Area	0.06 0.1%
	TOTAL	42.3 100.0%	
9	Characteristics	Area 40 is located in City Center. Area 40 is desingnated as Commercial area. The current actual situation is, however that it is still undeveloped. 70 % of the land is kept as woodlands. A small percentage is used for Government (Civic Center and Diplomat Area, 25%).	
10	Land Ownership	Provided that the potentiality of urban development in City Center rises, this area will be good place for development expansion of City Center. Since embassies, international agencies or government offices are already located, upmarket residential development or mixed use development are likely to take place.	

Area 41



1	Urban Zone	Tsabango	
2	Land Ownership	Ministry of Lands	
3	Area (ha)	Official	188.0
		Actual	156.6
4	Nos of Population	in 1988	0
		in 2008	0
		Pop Growth Rate% 1988-2008	0.00
5	Population Density (/ha)	in 1988 (Actual)	0
		in 2008 (Actual)	0
6	Nos of Unplanned Settlement Population	Nos of Village	1
		Nos of Population in 1987	1,886
		Nos of Population in 2005	6,375
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Open Space	156.6
		TOTAL	156.6
8	Actual Landuse (ha) (as of August, 2009)	Seasonal agriculture/Agri-mix	76.22 48.7%
		Medium density housing	27.53 17.6%
		Rivers and Dambo	25.23 16.1%
		Horticulture (Flower, Fruits etc.)	19.43 12.4%
		Woodland	4.52 2.9%
		Low density housing	3.64 2.3%
		TOTAL	156.6 100.0%
9	Characteristics	The location is just next to State House. Area 41 is designated as Open Space. The current situation of land use is also mostly agricultural or woodlands. A half of the area (49%) is being used as Seasonable agriculture/Agri-mix. The built-up housing area occupies around 30%.	
10	Future Emerging Structure and Development Direction	Since this area is very close to State House, the security check is very strict. It is presumed that this area is unlikely to be developed so much or to be encroached by informal settlements, because of the strict security check. This area will be probably left mostly as open space.	


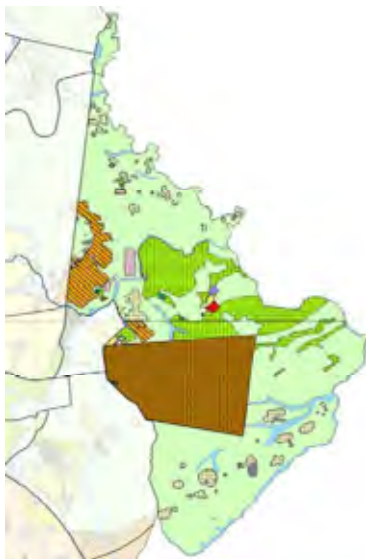
<h1>Area 42</h1>  			
1	Urban Zone	City Centre	
2	Land Ownership	Ministry of Lands	
3	Area (ha)	Official	-
		Actual	30.9
4	Nos of Population	in 1988	0
		in 2008	13
		Pop Growth Rate% 1988-2008	0.00
5	Population Density (/ha)	in 1988 (Actual)	0
		in 2008 (Actual)	0
6	Nos of Unplanned Settlement Population	Nos of Village	-
		Nos of Population in 1987	-
		Nos of Population in 2005	-
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Government	30.9
		TOTAL	30.9
8	Actual Landuse (ha) (as of August, 2009)	Woodland	27.56 89.1%
		Low density housing	3.08 10.0%
		District Distributor Road	0.27 0.9%
		Seasonable agriculture/Agri-mix	0.01 0.0%
		TOTAL	30.9 100.0%
9	Characteristics	Area 42 is very closely located to Civic Center. According to Outline Zoning Scheme, Area 42 is designated as Government land use. The actual situation of this area is undeveloped space (mostly Woodland). Only 10% is used for low density housing area.	
10	Future Emerging Structure and Development Direction	In future, it is probable that Government fuction will be expanded. If so, this area will be one of the candidate area for the expansion of Civic Center. As a matter of fact, it is currently proposed that a new offic building of UNDP will be constructed in Area 42. As such, new additional developments is likely to take place in Area 42.	

Area 43





1	Urban Zone	Nyama	
2	Land Ownership	Ministry of Lands, Malawi Housing Corporation	
3	Area (ha)	Official	1,071.0
		Actual	1,349.1
4	Nos of Population	in 1988	1,651
		in 2008	2,290
		Pop Growth Rate% 1988-2008	3.30
5	Population Density (/ha)	in 1988 (Actual)	1
		in 2008 (Actual)	2
6	Nos of Unplanned Settlement Population	Nos of Village	-
		Nos of Population in 1987	-
		Nos of Population in 2005	-
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Low Density Housing	701.6 52.0%
		Medium Density Housing	458.5 34.0%
		Institutional (Army, Police, Hospital)	189.0 14.0%
		TOTAL	1,349.1 100.0%
8	Actual Landuse (ha) (as of August, 2009)	Seasonable agriculture/Agri-mix	970.43 71.9%
		Low density housing	210.62 15.6%
		Rivers and Dambo	60.65 4.5%
		Informal Settlements	25.47 1.9%
		Indigenous Village	22.19 1.6%
		Primary & Secondary Education	15.32 1.1%
		Others	44.41 3.3%
		TOTAL	1,349.1 100.0%
9	Characteristics	Area 43 is located to the north from City Center. The area is designated as residential (52% of Low Density Housing and 34% of Medium Density Housing, and the rest of institutional land use). However, the actual situation is that most of the land is undeveloped and kept as seasonal agriculture/ agri-mix.	
10	Future Emerging Structure and Developemnt Direction	As urban expansion demand is not so strong in these northen areas, it is presumed that Area 43 will be suitable for orderly quiet residential development. Some parts may be probably developed for mixed use or small commercial development. As a matter of fact, Malawi Housing has a new housing project here(43/4).	

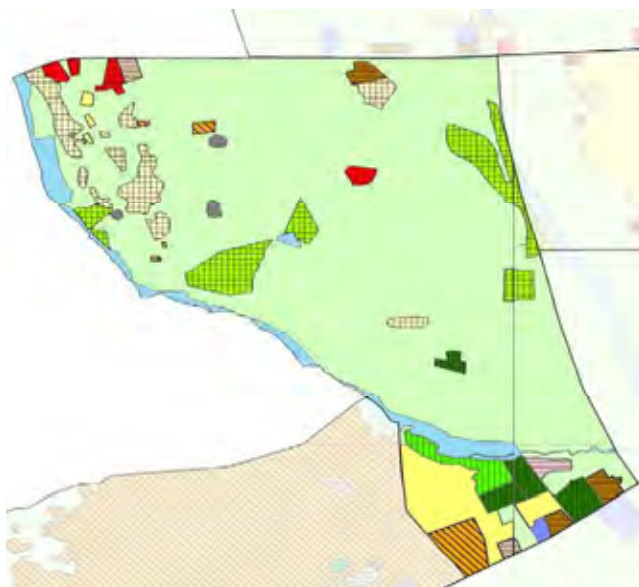
Area 44

1	Urban Zone	Tsabango		
2	Land Ownership	Ministry of Lands		
3	Area (ha)	Official	3,431.0	
		Actual	3,310.6	
4	Nos of Population	in 1988	13,203	
		in 2008	26,274	
		Pop Growth Rate% 1988-2008	7.10	
5	Population Density (/ha)	in 1988 (Actual)	4	
		in 2008 (Actual)	8	
6	Nos of Unplanned Settlement Population	Nos of Village	10	
		Nos of Population in 1987	8,115	
		Nos of Population in 2005	27,395	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	State House	558.5	16.9%
		Forestry	1,925.8	58.2%
		Agriculture	826.3	25.0%
		TOTAL	3,310.6	100.0%
8	Actual Landuse (ha) (as of August, 2009)	Seasonal agriculture/Agri-mix	1,880.44	56.8%
		State House	555.06	16.8%
		Woodland	384.91	11.6%
		Informal Settlements	190.15	5.7%
		Rivers and Dambo	128.27	3.9%
		Indigenous Village	104.77	3.2%
		Others	67.07	2.0%
		TOTAL	3,310.7	100.0%
9	Characteristics	State House exists in Area 44. This area is designated for State House plus surrounding open space(agriculture and forestry). The actual situation is almost the same as designated. Informal settlement encroachment is taking place (approx. 190 ha), and indigenous villages are existing as well (approx.105ha).		
10	Future Emerging Strucutre and Development Direction	The existence of State House is a strong determination factor for future land use. Since State House exists in this area, it is presumed that a big change will not happen in this area. No big developments will not be allowed here.		


<h1>Area 45</h1> 			
1	Urban Zone	Chinsapo	
2	Land Ownership	Ministry of Lands	
3	Area (ha)	Official	1,106.0
		Actual	1,365.3
4	Nos of Population	in 1988	414
		in 2008	170
		Pop Growth Rate% 1988-2008	-8.50
5	Population Density (/ha)	in 1988 (Actual)	0
		in 2008 (Actual)	0
6	Nos of Unplanned Settlement Population	Nos of Village	1
		Nos of Population in 1987	442
		Nos of Population in 2005	1,494
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Agriculture	1,365.3
		TOTAL	1,365.3
8	Actual Landuse (ha) (as of August, 2009)	Seasonal agriculture/Agri-mix	1,202.24 88.1%
		Rivers and Dambo	90.04 6.6%
		Cemetery	17.58 1.3%
		Low density housing	17.19 1.3%
		Light & Service Industry	8.17 0.6%
		Primary & Secondary Education	7.58 0.6%
		Others	22.53 1.6%
		TOTAL	1,365.3 100.0%
9	Characteristics	Area 45 is located just next to the rapid population increase area (Area 57). This area is designated as agriculture. Big dairy farms exist here. As dairy farms monitor and check informal encroachment strictly, Area 45 has been preserved mostly as open space.	
10	Future Emerging Structure and Development Direction.	It is hoped that the land use of Area 45 will be maintained mostly as big ranch and agriculture space. It is probable that some food processing factories or agri-industries will be located for the purpose of diversified industrialization.	

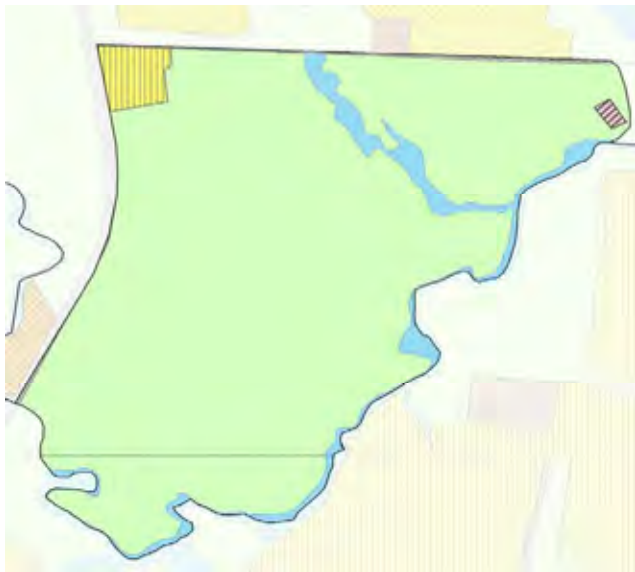
Area 46



1	Urban Zone	Chinsapo	
2	Land Ownership	Ministry of Lands	
3	Area (ha)	Official	917.0
		Actual	1,033.7
4	Nos of Population	in 1988	2,244
		in 2008	3,189
		Pop Growth Rate% 1988-2008	3.60
5	Population Density (/ha)	in 1988 (Actual)	2
		in 2008 (Actual)	3
6	Nos of Unplanned Settlement Population	Nos of Village	1
		Nos of Population in 1987	1,221
		Nos of Population in 2005	4,127
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Agriculture	1,033.7
		TOTAL	1,033.7
8	Actual Landuse (ha) (as of August, 2009)	Seasonal agriculture/Agri-mix	779.36 75.4%
		Woodland	51.84 5.0%
		Low density housing	44.07 4.3%
		Rivers and Dambo	38.51 3.7%
		Indigenous Village	35.63 3.4%
		Poultry farm/Dairy farm	20.65 2.0%
		Others	63.67 6.2%
		TOTAL	1,033.7 100.0%
9	Characteristics	Area 46 is designated as Agriculture according to OZS. The actual situation is mostly as designated as well. Seasonal agriculture/Agri-mix is dominant (75%). Some low density housing (probably farmers' house) (4%:Low density housing, 3%: Indigenous Village). The agriculture taken place here is mostly large-scale and or company scale.	
10	Future Emerging Structure and Development Direction	Since agriculture in this area is large-scale and run by company, monitoring and checking is strict for the encroachment. Therefore, there is not a big risk to be encroached by informal settlements. However, this area is located along the Chimchinji Road (M4) going to Zambia, the location is good enough for future commercial or industrial development.	


Area 48

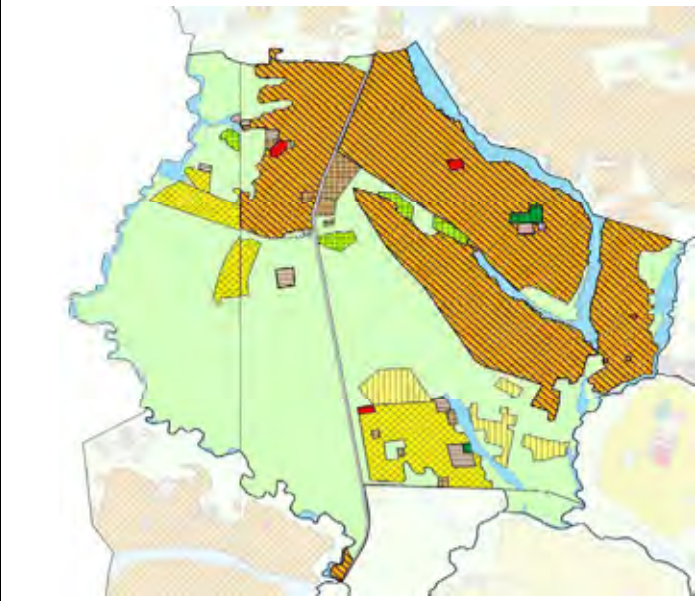




1	Urban Zone	Chimutu		
2	Land Ownership	Ministry of Lands		
3	Area (ha)	Official	89.0	
		Actual	95.0	
4	Nos of Population	in 1988	0	
		in 2008	0	
		Pop Growth Rate% 1988-2008	0.00	
5	Population Density (/ha)	in 1988 (Actual)	0	
		in 2008 (Actual)	0	
6	Nos of Unplanned Settlement Population	Nos of Village	-	
		Nos of Population in 1987	-	
		Nos of Population in 2005	-	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Undetermined Land	95.0	
		TOTAL	95.0	
8	Actual Landuse (ha) (as of August, 2009)	Seasonal agriculture/Agri-mix	87.26	91.8%
		Rivers and Dambo	4.78	5.0%
		Medium density housing	1.99	2.1%
		District Distributor Road	0.68	0.7%
		Power Station/Sub Station with H.T. line	0.25	0.3%
		High density permanent housing	0.05	0.1%
	TOTAL	95.0	100.0%	
9	Characteristics	Area 48 has been kept as undetermined land, although the surrounding areas have been largely developed for residential. The current land use is almost open space as designated. 90 % Seasonable agriculture/Agri-mix.		
10	Future Emerging Structure and Development Direction	It is proposed to construct National Sports Complex and Stadium in Area 48. This area shall be used for leisure/sports/reluxation in future. In line with the proposed plan, it is very probable that some commercial or mixed use developments will take place in proximity with the project site.		


Area 49







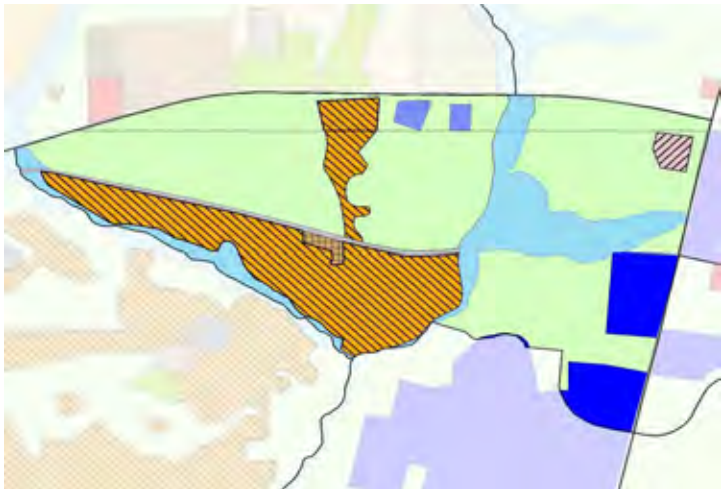
1	Urban Zone	Mariya		
2	Land Ownership	Malawi Housing Corperation, Lillongwe City Assembly		
3	Area (ha)	Official	964.0	
		Actual	1,360.3	
4	Nos of Population	in 1988	13,501	
		in 2008	26,001	
		Pop Growth Rate% 1988-2008	6.80	
5	Population Density (/ha)	in 1988 (Actual)	10	
		in 2008 (Actual)	19	
6	Nos of Unplanned Settlement Population	Nos of Village	1	
		Nos of Population in 1987	590	
		Nos of Population in 2005	1,994	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	High Density Housing Traditional	1,360.3	
		TOTAL	1,360.3	
8	Actual Landuse (ha) (as of August, 2009)	Seasonal agriculture/Agri-mix	664.42	48.8%
		Informal Settlements	445.25	32.7%
		Rivers and Dambo	84.64	6.2%
		High density permanent housing	79.08	5.8%
		Medium density housing	29.57	2.2%
		Religious Building/Centre/Institutes	15.07	1.1%
		Others	42.31	3.1%
TOTAL	1,360.3	100.0%		
9	Characteristics	Area 49 is the mix of agricultural land use and informal settlements. This area is designated as THA by OZS. However, around one third is currently occupied by Informal Settlements. The existence of informal is much more than High Density Permanent (6%) and Medium Density Housing (2%).		
10	Future Emerging Structure and Development Direction	If any big steps are not taken, the informal settlements are very likely to expand rapidly. The upgrading and improvement efforts will have to be taken constantly and strenuously. In fact, LCA is planning to develop infrastructure for multi-storied flats development in 49/6 and Malawi Housing plans to construct flats in 49/6.		

Area 50





1	Urban Zone	Kanengo		
2	Land Ownership	Ministry of Lands		
3	Area (ha)	Official	517.0	
		Actual	643.3	
4	Nos of Population	in 1988	8,178	
		in 2008	26,990	
		Pop Growth Rate% 1988-2008	12.70	
5	Population Density (/ha)	in 1988 (Actual)	13	
		in 2008 (Actual)	42	
6	Nos of Unplanned Settlement Population	Nos of Village	6	
		Nos of Population in 1987	5,523	
		Nos of Population in 2005	18,667	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Industry	643.3	
		----- TOTAL -----		
8	Actual Landuse (ha) (as of August, 2009)	TOTAL		643.3
		Informal Settlements	296.68	46.1%
		Seasonal agriculture/Agri-mix	235.62	36.6%
		Rivers and Dambo	38.35	6.0%
		High density traditional housing	17.88	2.8%
		District Distributor Road	13.55	2.1%
		Heavy/Large Scale industry	13.26	2.1%
		Others	27.97	4.3%
----- TOTAL -----		643.3	100.0%	
9	Characteristics	Area 50 is located in the industrial zone of Kanengo. OZS designated Area 50 as Industrial. The current situation is, however, the mix of Informal Settlements and Seasonal Agriculture. Since Area 50 is very close to factories in Kanengo, the worker class people tend to live in Area 50, 49 etc.		
10	Future Emerging Structure and Development Direction	Open spaces are still existing in Area 50. Approx. 236 ha is agriculture space. If indutrilization is accelerated, construction of new factories is likely to take place here. On the other hand, it is also probable that informal settlement encroachment will be expanded rapidly.		

<h1>Area 51</h1> 			
1	Urban Zone	Kanengo	
2	Land Ownership	Ministry of Lands	
3	Area (ha)	Official	126.0
		Actual	252.2
4	Nos of Population	in 1988	14,499
		in 2008	13,583
		Pop Growth Rate% 1988-2008	-0.70
5	Population Density (/ha)	in 1988 (Actual)	57
		in 2008 (Actual)	54
6	Nos of Unplanned Settlement Population	Nos of Village	1
		Nos of Population in 1987	4,480
		Nos of Population in 2005	15,142
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Industry	252.2
		TOTAL	252.2
8	Actual Landuse (ha) (as of August, 2009)	Seasonal agriculture/Agri-mix	142.22 56.4%
		Informal Settlements	51.14 20.3%
		Rivers and Dambo	30.46 12.1%
		Heavy/Large Scale industry	16.91 6.7%
		District Distributor Road	5.63 2.2%
		Light & Service Industry	2.49 1.0%
		Others	3.36 1.3%
		TOTAL	252.2 100.0%
9	Characteristics	Area 51 is located in Kanengo Sector, and it is designated as Industrial by OZS. The actual situation is, however, that most of the lands are still undeveloped. Only 7% is used as Heavy/Large Scale industry extended from Area 28. Informal settlements encroachment has already taken place. 20% of the land area is informal.	
10	Future Emerging Structure and Development Direction	Since 51 was intended for industrial use, priority should be given to industrial projects. Capital intensive, large-scale factories will be desirable to be attracted. Or another direction might be high density flat developments or mixed use development in linkage with redevelopment/renewal of existing informal settlements.	

Area 52





1	Urban Zone	Alimaunde		
2	Land Ownership	Airport Development Limited		
3	Area (ha)	Official	2,541.0	
		Actual	2,427.8	
4	Nos of Population	in 1988	2,843	
		in 2008	3,323	
		Pop Growth Rate% 1988-2008	1.60	
5	Population Density (/ha)	in 1988 (Actual)	1	
		in 2008 (Actual)	1	
6	Nos of Unplanned Settlement Population	Nos of Village	9	
		Nos of Population in 1987	1,893	
		Nos of Population in 2005	6,398	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Undetermined Land	1,951.3	80.4%
		Agriculture	476.5	19.6%
		TOTAL	2,427.8	100.0%
8	Actual Landuse (ha) (as of August, 2009)	Seasonal agriculture/Agri-mix	1,614.89	66.5%
		Airport	358.72	14.8%
		Rivers and Dambo	304.07	12.5%
		Indigenous Village	69.68	2.9%
		Woodland	22.01	0.9%
		Cemetery	15.38	0.6%
		Others	43.03	1.8%
		TOTAL	2,427.8	100.0%
9	Characteristics	This is the area where Airport is existing. According to OZS, most of the lands of Area 52(80%) is designated as undetermined. The rest (20%) is agriculture. Airport is actually existing and occupies 15% of the land area of Area 52. The largest item (67%) is Seasonal agriculture/Agri-mix use.		
10	Future Emerging Structure and Development Direction	As in the case of Area 53, it is very likely that some commercial/industrial/residential projects will be conceived and formulated, by taking advantage of the existence of the airport. In other words, airport-related developments are likely to take place in Area 52.		


Area 53




1	Urban Zone	Lumbadzi		
2	Land Ownership	Airport Development Limeted, Ministry of Lands		
3	Area (ha)	Official	1,583.0	
		Actual	1,514.5	
4	Nos of Population	in 1988	11,947	
		in 2008	19,453	
		Pop Growth Rate% 1988-2008	5.00	
5	Population Density (/ha)	in 1988 (Actual)	8	
		in 2008 (Actual)	13	
6	Nos of Unplanned Settlement Population	Nos of Village	4	
		Nos of Population in 1987	5,574	
		Nos of Population in 2005	18,840	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Medium Density Housing	247.9	16.4%
		Undetermined Land	973.3	64.3%
		Others	293.3	19.4%
		TOTAL		1,514.5
8	Actual Landuse (ha) (as of August, 2009)	Seasonal agriculture/Agri-mix	821.57	54.3%
		Informal Settlements	207.53	13.7%
		Rivers and Dambo	148.16	9.8%
		High density permanent housing	121.57	8.0%
		Woodland	67.60	4.5%
		Other Open Areas	49.89	3.3%
		Others	98.04	6.5%
TOTAL		1,514.4	100.0%	
9	Characteristics	Area 53 is located just next to Airport. The current situation is mostly Open Space, though OZS designates Area 53 as 17%: Medium Density Housing and the rest of the area: undetermined. This are has been already encroached by informal settlements (14%), and High Density Permanent occupies 8%.		
10	Future Emerging Structure and Development Direction	The Airport Development Limited (ADL) plans to develop a hotel under the partnership of private-public (PPP). It will be done through the scheme of "build-operate-transfer". In addition to a hotel development, It might additionally expand the project for the current popular trend of Eco-Tourism.		

Area 54		 	
1	Urban Zone	Lumbadzi	
2	Land Owner Ship	Ministry of Lands	
3	Area (ha)	Official	187.0
		Actual	1,751.0
4	Nos of Population	in 1988	3,469
		in 2008	4,489
		Pop Growth Rate% 1988-2008	2.60
5	Population Density (/ha)	in 1988 (Actual)	2
		in 2008 (Actual)	3
6	Nos of Unplanned Settlement Population	Nos of Village	3
		Nos of Population in 1987	1,109
		Nos of Population in 2005	3,748
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Forestry	1,544.2 88.2%
		Open Space	206.8 11.8%
		TOTAL	1,751.0 100.0%
8	Actual Landuse (ha) (as of August, 2009)	Seasonable agriculture/Agri-mix	1,484.64 84.8%
		Rivers and Dambo	98.12 5.6%
		Indigenous Village	87.41 5.0%
		Woodland	31.53 1.8%
		Other Open Areas	21.79 1.2%
		Cemetery	19.47 1.1%
		Others	8.04 0.5%
		TOTAL	1,751.0 100.0%
9	Characteristics	Area 54 is still undeveloped open space. According to OZS, it is designated as preserving forestry(90%) and open space(10%). Most of the undeveloped open spcae, is seasonally used for agriculture. Indigenous villages are existing in this area.	
10	Future Emerging Structure and Development Direction	There is a project to establish "Raising Malawi Girls Academy" on the site of 8.4 ha. The project is a private-sector-driven project. The detail design and EIA has been already done. However, urbanization expansion has not been strong in these northern areas because of big disadvantage of transport.	

Area 55






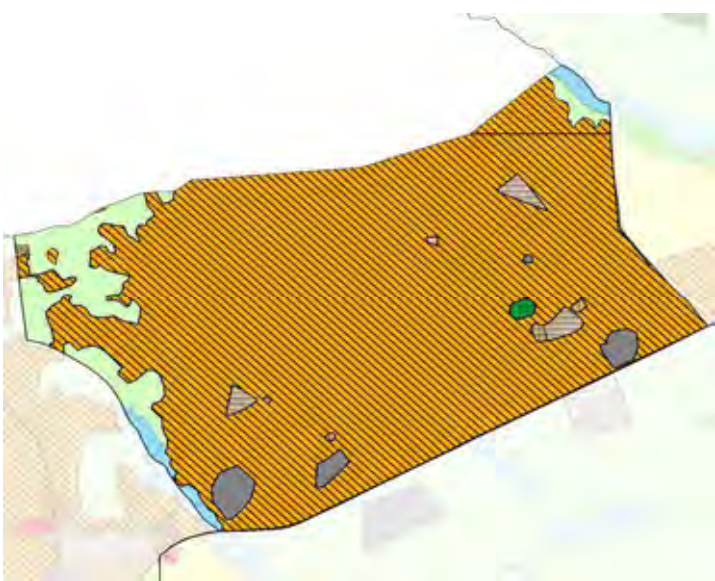
1	Urban Zone	Alimaunde	
2	Land Ownership	Airport Development Limeted, Ministry of Lands	
3	Area (ha)	Official	5,035.0
		Actual	5,491.0
4	Nos of Population	in 1988	10,867
		in 2008	13,545
		Pop Growth Rate% 1988-2008	2.20
5	Population Density (/ha)	in 1988 (Actual)	2
		in 2008 (Actual)	2
6	Nos of Unplanned Settlement Population	Nos of Village	17
		Nos of Population in 1987	7,231
		Nos of Population in 2005	24,440
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Undetermined Land	4,560.4 83.1%
		Agriculture	930.6 16.9%
		TOTAL	5,491.0 100.0%
8	Actual Landuse (ha) (as of August, 2009)	Seasonal agriculture/Agri-mix	4,273.92 77.8%
		Rivers and Dambo	671.60 12.2%
		Indigenous Village	282.65 5.1%
		Poultry farm/Dairy farm	151.32 2.8%
		Cemetery	59.30 1.1%
		Woodland	19.04 0.3%
		Others	33.23 0.6%
TOTAL	5,491.1 100.0%		
9	Characteristics	Area 55 is undeveloped open space. OZS designates this area as "Undetermined"(83%) and Agriculture(17%). The actual situation is almost similar as designated. It seems to suggest that this area shall be kept open for far future development.	
10	Future Emerging Structure and Development Direction	It may be wise that Lilongwe City will keep some lands for future development. It is not so necessary to extend urban development projects in such place as no strong development demand.	

Area 56





1	Urban Zone	Mariya	
2	Land Ownership	Ministry of Lands	
3	Area (ha)	Official	667.0
		Actual	332.8
4	Nos of Population	in 1988	22,369
		in 2008	36,786
		Pop Growth Rate% 1988-2008	5.10
5	Population Density (/ha)	in 1988 (Actual)	67
		in 2008 (Actual)	111
6	Nos of Unplanned Settlement Population	Nos of Village	4
		Nos of Population in 1987	8,860
		Nos of Population in 2005	29,946
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	High Density Housing Traditional	332.8
		TOTAL	332.8
8	Actual Landuse (ha) (as of August, 2009)	Informal Settlements	207.26 62.3%
		Seasonal agriculture/Agri-mix	74.43 22.4%
		Rivers and Dambo	33.03 9.9%
		Indigenous Village	5.24 1.6%
		Cemetery	4.74 1.4%
		Primary & Secondary Education	4.33 1.3%
		Others	3.74 1.1%
		TOTAL	332.8 100.0%
9	Characteristics	Area 56 is one of typical informal concentration areas. It is designated as THA by OZS. As very usually happened in THA, 62% of this area is already occupied by Informal Settlements. They have expanded beyond the administrative boundary of the Lilongwe City, extending to the jurisdiction area of LDA.	
10	Future Emerging Structure and Development Direction	It is one of serious constraint area of informal settlements. The upgrading and improvement shall be done immediately with strenuous effort.	

Area 57

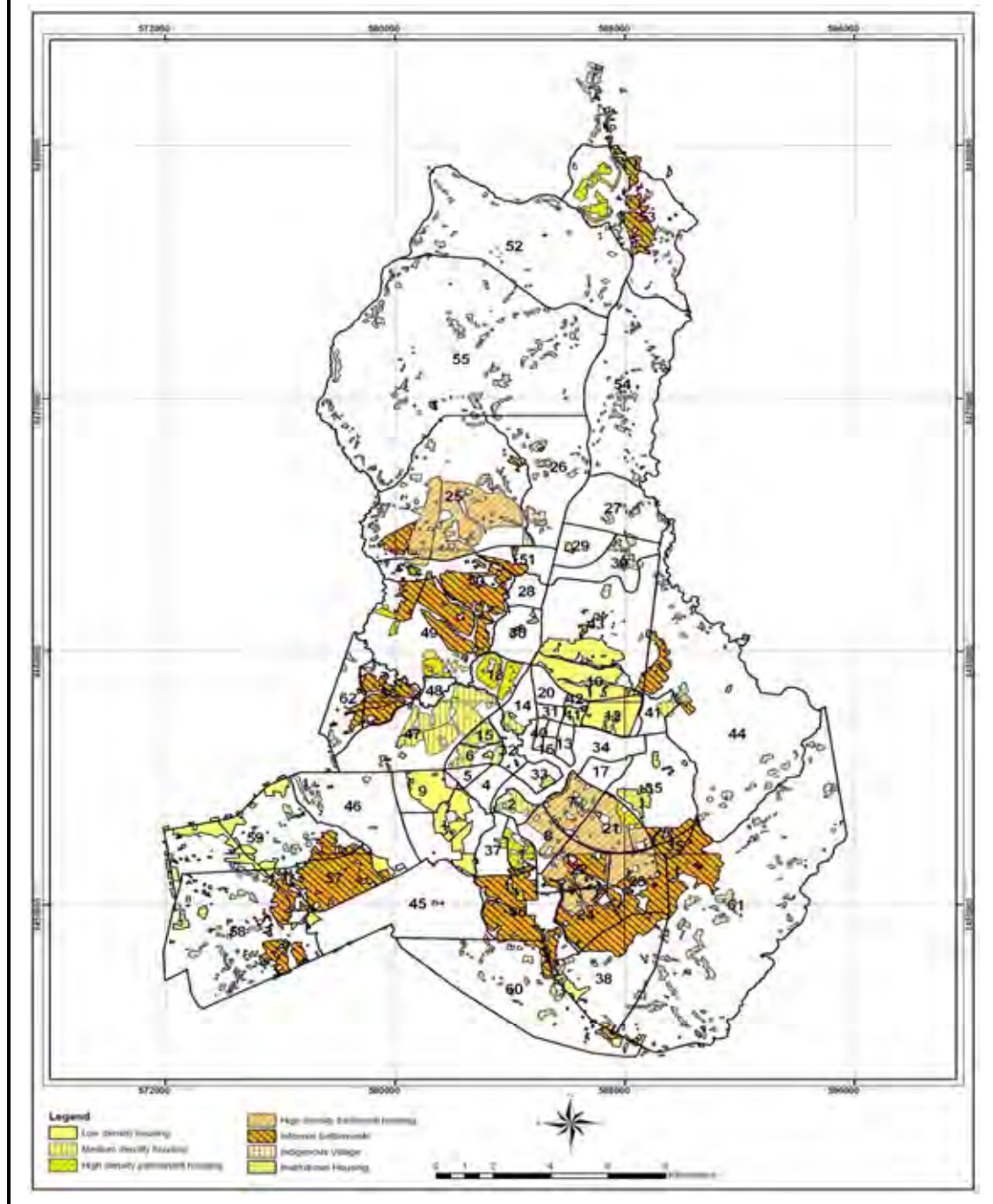



1	Urban Zone	Chinsapo		
2	Land Ownership	Lilongwe City Assembly		
3	Area (ha)	Official	578.0	
		Actual	512.7	
4	Nos of Population	in 1988	34,692	
		in 2008	60,617	
		Pop Growth Rate% 1988-2008	5.70	
5	Population Density (/ha)	in 1988 (Actual)	68	
		in 2008 (Actual)	118	
6	Nos of Unplanned Settlement Population	Nos of Village	8	
		Nos of Population in 1987	10,965	
		Nos of Population in 2005	37,061	
		Pop Growth Rate% 1987-2005	-	
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	High Density Housing Traditional	512.7	
		TOTAL	512.7	
8	Actual Landuse (ha) (as of August, 2009)	Informal Settlements	447.04	87.2%
		Seasonal agriculture/Agri-mix	38.95	7.6%
		Cemetery	9.61	1.9%
		Rivers and Dambo	7.17	1.4%
		Primary & Secondary Education	5.91	1.2%
		Others	1.15	0.2%
		Others	2.90	0.6%
TOTAL	512.7	100.0%		
9	Characteristics	Area 57 is a the most densely concentrated with informal settlements. Almost 90% of this area is occupied by Informal Settlements. The population influx from countryside to Lilongwe City will find their houses in such THA areas as Area 57, mainloy because of some economic reasons. The cost is cheap and the location is near from the central part.		
10	Future Emerging Structure and Development Direction	The upgrading and improvement efforts shall be done. Regularization should be basic stance.		

<h1>Area 58</h1> 			
1	Urban Zone	Chinsapo	
2	Land Ownership	District Assembly	
3	Area (ha)	Official	1,085.0
		Actual	2,135.5
4	Nos of Population	in 1988	16,893
		in 2008	24,477
		Pop Growth Rate% 1988-2008	3.80
5	Population Density (/ha)	in 1988 (Actual)	8
		in 2008 (Actual)	11
6	Nos of Unplanned Settlement Population	Nos of Village	-
		Nos of Population in 1987	-
		Nos of Population in 2005	-
		Pop Growth Rate% 1987-2005	-
7	Landuse of Lilongwe Outline Zoning Scheme (ha) (1986)	Undetermined Land	2,135.5
		TOTAL	2,135.5
8	Actual Landuse (ha) (as on August, 2009)	Seasonable agriculture/Agri-mix	1,315.35 61.6%
		Informal Settlements	249.13 11.7%
		Rivers and Dambo	137.23 6.4%
		Indigenous Village	106.84 5.0%
		Higher Education	105.62 4.9%
		Woodland	63.00 3.0%
		Others	158.34 7.4%
		TOTAL	2,135.5 100.0%
9	Characteristics	Area 58 is proposed to be newly joined within the jurisdiction of Lilongwe City. 2008 CENSUS has counted its population as a part of Lilongwe City. The current land use is mostly undeveloped yet. However, the informal settlement encroachment has already begun. It is extended from the eastern side (Area 57).	
10	Future Emerging Structure and Development Direction	Since urbanization pressure is very strong in this area, sooner or later housing developments or informal encroachments will take place more strongly. The effort of providing formal high density housing will be needed, while upgrading and improvement effort shall be done for the existing informal.	

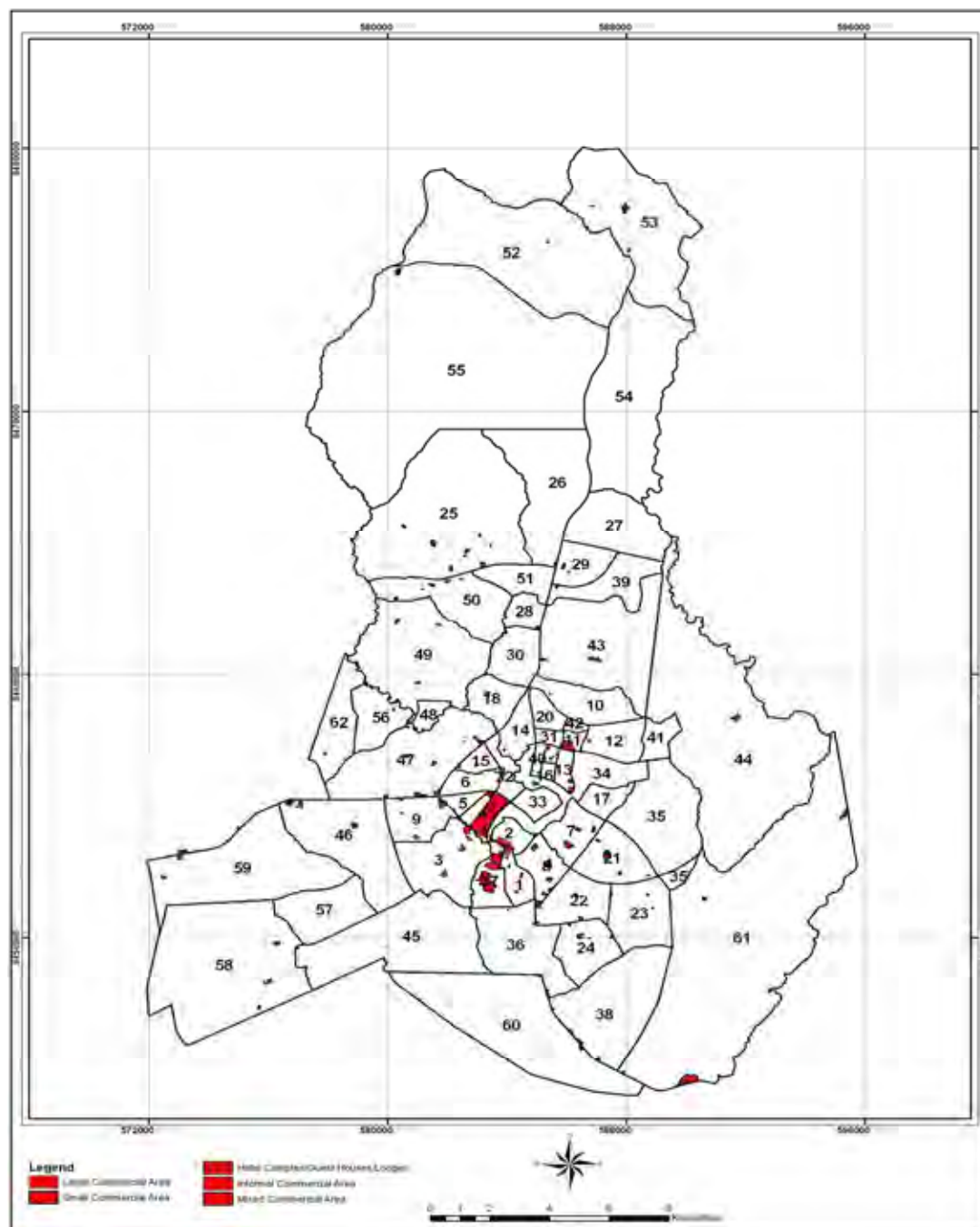
Current Residential Land Use

as of August 2009



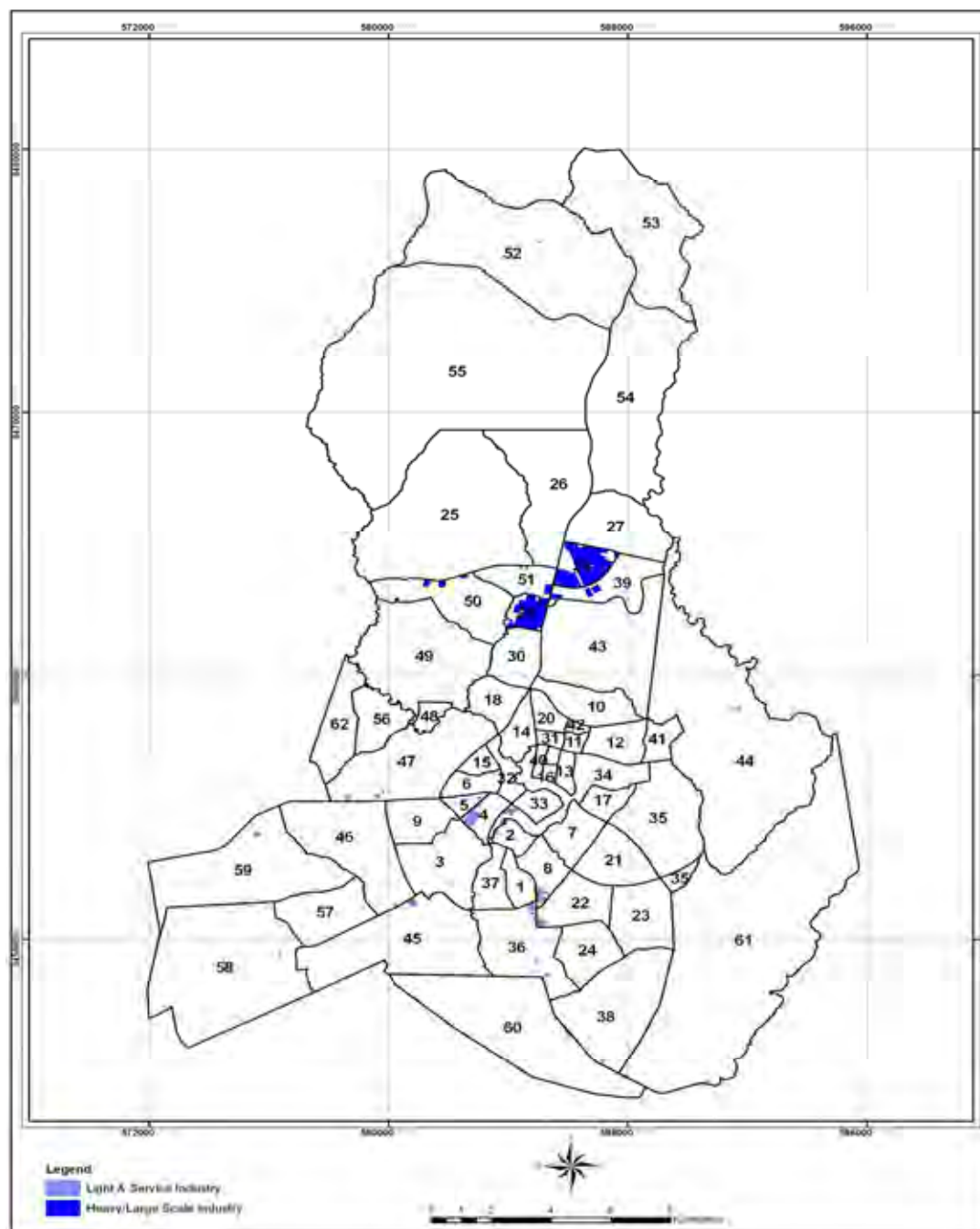
Current Commercial Land Use

as of August 2009

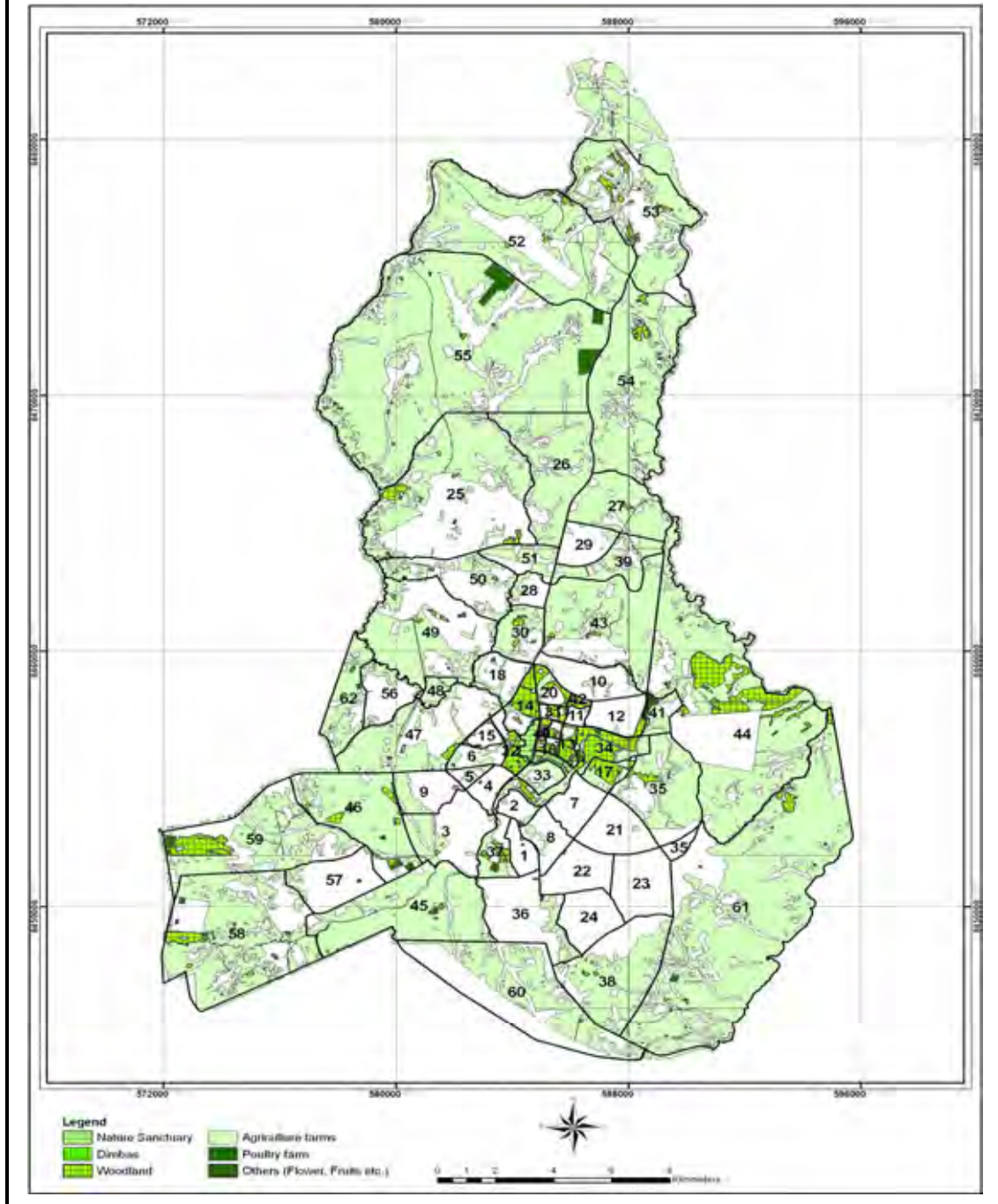


Current Industrial Land Use

as of August 2009



Current Open Space Land Use as of August 2009



APPENDIX 2

Urban Profile of Lilongwe City

Urban Zones

For the purpose of basic urban analysis of Lilongwe city, the study area was sub-divided into various urban zones. The following parameters were considered while finalizing the zones:

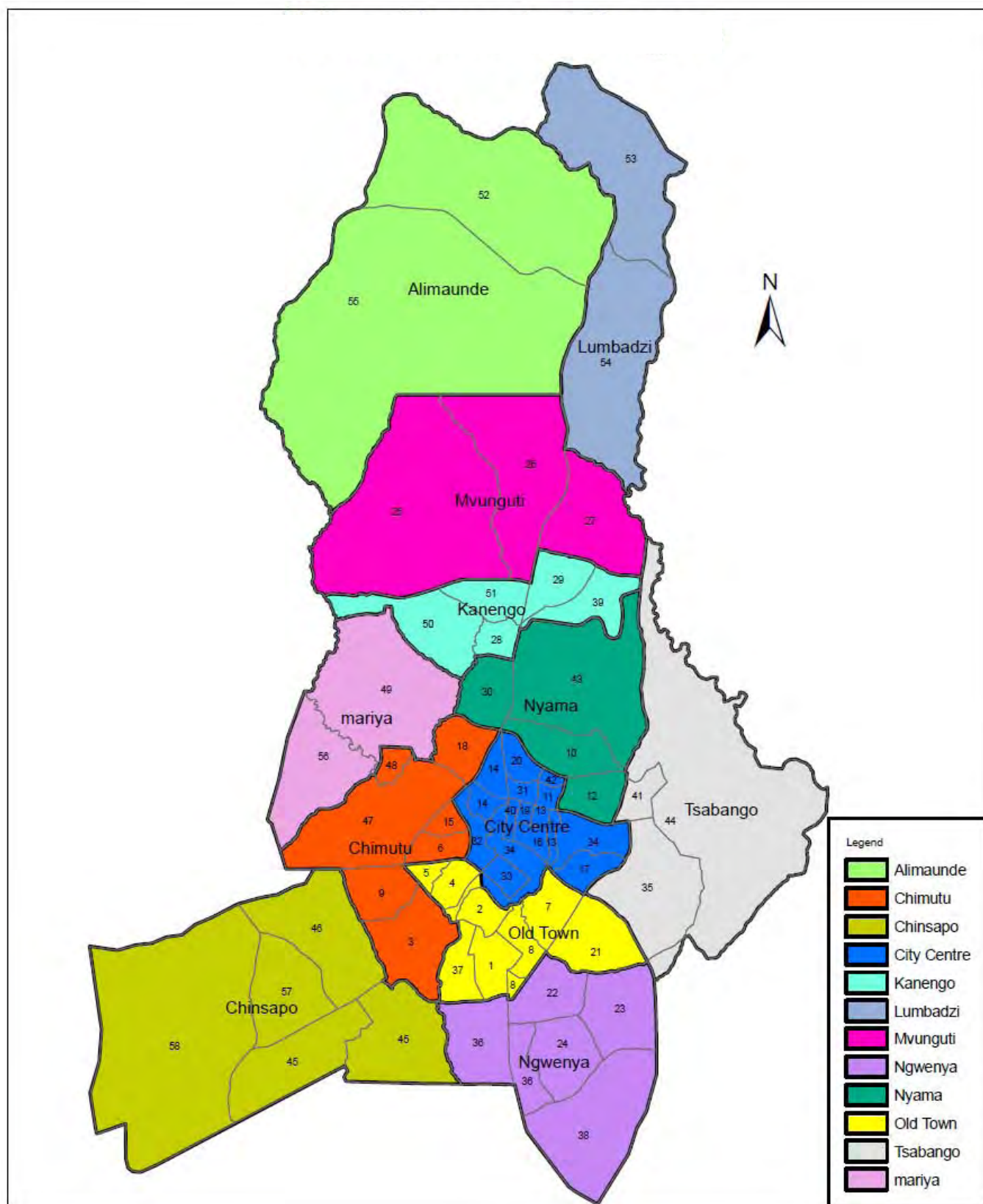
- Major or dominant land use;
- Existing boundaries;
- The type of housing;
- Basic infrastructure availability;
- Unplanned settlements;
- Urban Population and population growth.

Prior to any further analysis, the draft zones were discussed with Lilongwe City Council and were also discussed with the concerned officials from Physical Planning and other departments during the Land Use Working Group Meeting.

Considering the above parameters, the study area was sub-divided into 12 zones, with each zone being named using the most commonly used or dominant name in that particular area. Table-1 shows further details on the Zones, including allocated names, abbreviations and composite area numbers (the study area consists of Area 58 separate areas).

Figure-1 shows the spatial distribution and the areas coverage by each of the suggested zones.

Table 1 Urban Zones in the Study Area (Lilongwe City)			
	Urban Zone	Abv.	Areas
1	Alimaunde	ALM	52, 55
2	Lumbadzi	LUM	53, 54
3	Mvunguti	MVN	25,26,27
4	Kanengo	KAN	28, 29, 39,50,51
5	Mariya	MRY	49, 56
6	Chimutu	CMT	3,6,9,15,18,47,48
7	Nyama	NYM	10,12,30,43
8	Tsabango	TBN	35,41,44
9	City Centre	CCT	11,13,14,16,17,19,20,31,32,33,34,40,42.
10	Old Town	OTN	1,2,4,5,7,8,21,37
11	Chinsapo	CSP	45,46,57,58
12	Ngwenya	NWY	22,23,24,36,38



Source: JICA Study Team

Figure 1 12 Urban Zones in the Study Area (Lilongwe City)

Urban Zone Profile

No.	Urban Zone	Areas	Basic Description	Population & Population Density	Land Ownership and Typical Land Use	Housing and Informal Settlement	Main Development Projects to Take Place in Future	Infrastructure	Major Issues & Emerging Future Development
1	Alimaunde Zone	52, 55	Airport and vacant area currently used for agriculture activities. Among the 12 zones, this has the largest area with a plenty of scope for further development.	As per the Census 2008, this zone has a total population of 18,876. In the last 10 years the population increased by approx. 20.2%. As this has the large undeveloped area, the population density is quite low (2.4 per/ha). This zone has an area of approx. 7919 ha.	This zone land is owned roughly 50/50 by the Airport Development Limited and the Ministry of Land. The typical land uses in this zone are Airport use, cultivation, indigenous villages and informal settlements.	Area 52 comprises mainly the Airport area with runway and buildings i.e. offices, and warehouses. Area 55 comprises horticulture area. However some sporadic village settlements and farming and some institutional buildings e.g. police also exist. As a l	Area 52 comprises mainly the Airport area with runway and buildings i.e. offices, and warehouses. Area 55 comprises horticulture area. However some sporadic village settlements and farming and some institutional buildings e.g. police also exist. A new	The area is composed of services with a tarmac road up to the airport terminal and warehousing area. The remainder is serviced by earth roads and narrow mud lanes. Water supply is reticulated by the Lilongwe Water Board around the airport areas, while the villages are ser	Airport location not utilized to its full potential. Need to plan for the maximum utilization of existing airport. Need to be supported by Infrastructure services. The area is largely unserved by roads, no access to electricity and sanitation coverage to
2	Lumbadzi Zone	53, 54	The zone consists partly of a residential area which is supporting the airport activities. A large portion of the area is barren land with indigenous villages and informal settlements.	As per the Census 2008, this zone has a total population of 23,942. In the last 10 years the population increased by approx. 55.3%. This is one of the most rapidly developing areas, however it is still has a low density (7.3 per/ha). This zone has an area of approx. 3,265	This zone land ownership is shared between Airport Development Limited and Ministry of Land. In general, majority of the land is owned by Ministry of Land. In general the major chunk of land that belong to Ministry of Land is currently used as Customary 1	Airport Development Limited (ADL) has 845 houses of medium and high density with 500 and 700, respectively, medium and high density new subdivisions. As this zone is near to Airport area, it seems the informal settlements has grown to support the resident	There are proposals for 2500 plots to be subdivided for private development by ADL. Areas 53/2, 3 & 4 are heavily squatted by informal high density traditional settlements and a commercial development. The areas has traditional village settlements extend	The area is partly serviced in the ADL housing estate with roads, water, and electricity while the informal settlements and villages are unserved (roads area earthen and unpaved, water is from boreholes, wells and rivers. The whole area is accessible b	The large vacant available area need to be developed in a planned manner. Airport location not utilized to its full potential. Need to plan for the maximum utilization of existing airport. The forest area which in reality doesn't exist need to be plann
3	Mvunguti Zone	25,26,27	Rapidly increasing high density traditional housing area. Major development is in the central region of this zone. However, it is expanding in all directions.	As per Census 2008, this zone has a total population of 71,698. In last 10 years this zone experienced the rapid increase in population. It increased by 61.3%. This is one of the rapidly developing area, with a density of 17.4 per/ha. This zone has an a	This zone land ownership is shared between Lilongwe City Assembly and Malawi Housing Corporation. In general, majority of the land in this zone is owned by Lilongwe City Assembly. The typical land uses in this zone are high density traditional housing, m	The zone is largely a high density traditional housing area with small area of high density permanent housing areas with institutional development. As this zone is near to Industrial area, the informal settlements are on rise and are supporting the indust	A part of the area has been leased for a huge scale private sector housing development project. (Kanengo Northgate) The scale is so big. However, so far, such a big scale of development is unlikely to happen probaly because of fund procurement difficulti	Apart from the M1 road and the main distributor roads the rest is serviced by earth roads and unpaved. Water supply is partly accessible to the areas managed by LCA, and the institutional areas while the traditional areas are serviced by boreholes, wells	Specific policy need to be formulated for the upgradation of housing and socio economic conditions of the rapidly increasing population specially in the high density traditional areas. Policy and plans need to be framed for the encroachment, resettlement
4	Kanengo Zone	28, 29, 39,50,51	Though this is considered as Industrial area but majority of the activities are limited for storage rather then manufacturing or processing products. A large number of warehouses along with a Freight Railway Station exist in this zone.	As per Census 2008, this zone has a total population of 45,957. In last 10 years this zone experienced the rapid increase in population. It increased by 66.9%. However, the population is mainly concentrated in area 39, 50 & 51. This zone has a density o	This zone's land is owned by Ministry of land. Partial land is owned by Lilongwe City Assembly (part of Area 39). The typical land uses in this zone are industrial use, ware houses, high density permanent housing, bare land and informal settlements.	As there is a demand for cheap labour in this industrial zone, it resulted in the rapid increase of informal settlements. As per City Assembly 2005 data, the total informal population in this zone is approx. 43,904 which is highest among the 12 zones.	The current use of this zone is mainly industrial land use, new additional industrial developments are likely to happen. But, the zone is heavily encroached by informal settlements specially in the area 50, 51 and 39. In future, it seems to be of great im	Apart from Area 28 and 29 which is fully serviced by sealed roads, water, sewerage and electricity. The rest is not serviced, largely serviced by earth roads, foot paths. Water supply is accessible to certain areas and rest are dependent on boreholes, w	Policy with certain Incentives need to be framed for the promotion of Investment in Industrial Area. Need is to convert this region from "Storage" activities (warehouses) to "Manufacturing" activities. Strategies and policies need to be framed to regulat
5	Mariya Zone	49, 56	This is mainly a high density traditional residential area with rapid increase of population in the southern area of the zone. Large vacant land is available for further development.	As per Census 2008, this zone has a total population of 62,187. In last 10 years this zone experienced the rapid increase in population. It increased by 75%. This zone has a density of 36.7 per/ha. This zone has an area of approx. 1,693 ha.	This zone's land ownership is shared between Ministry of Lands, Malawi Housing Corporation and Lilongwe City Assembly. The typical land uses in this zone are high density traditional, high density permanent housing, bare land and informal settlements.	Despite being near to Industrial zone, it seems that the industrial activities has a limited influence to the informal settlements. These are basically supporting the residential area that exist in near by zones like Chimutu. As per City Assembly 200	Area round high density traditional housing area partly developed as high density permanent area in areas 49/1 and 5. Area 56 is squatter settlement area with village settlements e.g. Mtandire, Mtsiliza, Pearson etc. The rest of the area 49/6 is farmlan	Apart from Areas 49/1, 4,5 which is serviced by earth, and gravel roads the rest of the area does not have well developed road network. Water supply is partly provided by Lilongwe Water Board but some areas use boreholes, wells and streams. Area-49 ha	This is a rapidly developing area with a non existence of layout plans. The informal and haphazard way of division and sub-division of plots leading to chaos. Thus need to be survey and planned accordingly. Considering this zone's closeness to the Industr
6	Chimutu Zone	3,6,9,15, 18,47,48	This is a residential area with a mix of high density permanent, medium density and low density residential settlements. Majority of the development is on the eastern side of this zone.	As per Census 2008, this zone has a total population of 30,801. In last 10 years this zone experienced the decline in population. It decreased by 8.3%. This zone has a density of 11.6 per/ha. This zone has an area of approx. 2,665 ha.	This zone's land ownership is shared between Ministry of Lands, Malawi Housing Corporation and Press Properties, Pvt. Owners (Freehold Property). The typical land uses in this zone are high density permanent housing, medium density housing and low densit	The area is largely low, medium and high density permanent residential areas with standard houses of planned and permanent materials privately and institutionally owned. No informal settlements are reported in this zone. As most of the area is developpe	There are not so big projects in this zone. A small scale housing projects will take place from time to time.	Well serviced by tarmac roads, and drains. Some roads require major rehabilitation and maintenance. Sewerage network existing in some areas and complemented by septic tanks. In general this area is fully covered with safe sanitation. Water reticulatio	This zone is very low density area with over-size plot sizes. The policies to increase the density in this zone need to be promoted. The options like permission for 2-3 storey housing, more area coverage may be allowed.

Urban Zone Profile (Continued)

No.	Urban Zone	Areas	Basic Description	Population & Population Density	Land Ownership and Typical Land Use	Housing and Informal Settlement	Main Development Projects to Take Place in Future	Infrastructure	Major Issues & Emerging Future Development
7	Nyama Zone	10,12,30,43	This is low density area with a institutional area dedicated for Police activities and uses. The majority of the upper region of this zone is vacant and available for further development.	As per Census 2008, this zone has a total population of 10,175. In last 10 years this zone also experienced the decline in population. It decreased by 9.0%. This zone has a low density of 4.4 per/ha. This zone has an area of approx. 2,326 ha.	This zone's land is owned by Ministry of Land and Malawi Housing Corporation (MHC). The typical land uses in this zone are low density housing, medium density housing and police area.	This zone is mainly used for low density permanent residential area. Permanent standard housing developments are taking place. As per Lilongwe City Assembly 2005 data no informal settlements are reported in this zone. However, some informal settlements a	There are not so conspicuously big development plans, but permanent standard housing developments are likely to happen. government buildings. New extension area available	Well developed road network to bitumen standard. New road network are under construction. Electricity reticulated and being extended to new areas. Water reticulated by LWB and being extended to new areas. Telephone and cellular network available.	This zone is very low density area with over-size plot sizes. The policies to increase the density in this zone need to be promoted. The options like permission for 2-3 storey housing, more area coverage may be allowed. The institutions need to be promot
8	Tsabango Zone	35,41,44	In terms of area this is 4th largest area among the 12 zones. The zone is dominated by State house(President house) along with Military activities. This area also has a large vacant area with a high potential for further development.	As per Census 2008, this zone has a total population of 33,729. In last 10 years this zone experienced the rapid increase in population. It increased by 83.5%. This zone still has a low density of 7.8 per/ha. This zone has an area of approx. 4,324 ha	This zone's land is owned by Ministry of Land. The typical land uses in this zone are State house, Military uses, forest, informal settlements and bare lands.	Despite being the existence to State House and Military establishment, this zone too has a presence of Informal settlements. As large chunk of vacant land is available, it provided opportunity for poors and low income population to settle down here. As p	Since the State House is located in this zone, any big development projects will have to undergo strict examination. In particular, if the locaton were planned very near to the State house, it will be checked with due care, whatever the development might	Roads developed in most areas. Water supply fully serviced. Electricity fully provided. Telephone and cellular network available. Sewerage systems in place. Refuse disposal and collection is regular in this area. Informal settlements do not have an	Large undeveloped vacant land is available. It is presumed that the Government will not allow urban development so much. If the Government allows some development projects, it will be necessary to formulate a plan for orderly development. Probably preser
9	City Centre Zone	11,13,14,16,17,19,20,31,32,33,34,40,42.	This is a typical administrative and service centre of a city. It consists of Natures Sanctuary area with a high potential to develop as recreational area. It is developed area with few pockets of area available for further development.	As per Census 2008, this zone has a total population of 5,109. In last 10 years this zone experienced the increase in population. It increased by 22.9%. This zone still has a low density of 3.2 per/ha. This zone has an area of approx. 1,612 ha.	This zone's land is owned by Ministry of Land. The typical land uses in this zone are City Centre, Administrative Centre, Institutional Area and Nature Sanctuary Area.	This zone is City Center. There are many office buildings, government houses, shops, banks and some institutional developments. No informal settlements are reported in this zone. As most of the area is developed with limited vacant spaces and not much s	Construction of New City Centre is proposed in this zone. Diplomatic mission offices, government offices also exist in this zone. Construction of New Parliament building and cultural centre is underway. We may expect that a lot of institutional developm	Road network partly developed. Sewerage network is partly available. Electricity network available. Water supply network in place. Telephone and cellular phone network available. Regular refuse collection system.	Zone is under-developed with a large number of plots still vacant/under developed. Non optimum utilization of nature's gift "Sanctuary Area". This area has big potentiality to be developed and strengthened as major office work center (Central Business Di
10	Old Town Zone	1,2,4,5,7,8,21,37	This is vernacular area or old town area of the city. It has typical mix of land uses with highest population density among the 12 zones. As per current land use and planning standard, it is almost developed to its full potential.	As per Census 2008, this zone has a total population of 124,531. Second highest populated zone. In last 10 years this zone experienced the increase in population. It increased by 19.4%. This zone has the highest density of 75.7 per/ha. This zone has an	This zone's land is shared between Ministry of Lands, Malawi Housing Corporation and Lilongwe City Assembly. The typical land uses in this zone are Commercial area, Medium density, High Density Permanent Housing and few light industries (agro processin	Despite non availability of vacant lands but with many opportunities for work in the old town area , this zone also has a presence of informal settlements. As per City Assembly 2005 data, the total informal population in this zone is approx. 32,342. Dur	This zone is the center of commercial function in Lilongwe City. Retail shopping center developments and other related service function developments will take place. One of the big concern will be redevelopment of the bus terminal center. Although there a	Road network partially developed. Requires upgrading in some areas, drainage partially developed. Water supply system fully reticulated. Electricity grid well developed. Sewerage and septic tanks are in use. Refuse collection system partially dev	With a mix of many activities, this zone is facing many typical problems, such as traffic circulation, parking, illegal and haphazard commercial development etc. Congestion and overcrowding is a major issue. Open spaces and parks are missing in the highe
11	Chinsapo Zone	45,46,57,58	This zone can be termed as a high density traditional housing area. This zone also has a large land area that is currently used for agriculture and other activities (green areas). As study area includes 'Area 58' which basically is a customary land with	As per Census 2008, this zone has a total population of 88,453. Third highest populated zone. In last 10 years this zone experienced the rapid increase in population. It increased by 63.1%. This zone has the density of 17.5 per/ha. This zone has an a	This zone's land is shared between Ministry of Lands, Malawi Housing Corporation and District Assembly. The typical land uses in this zone are Cultivation area, informal settlements, medium density housing, bare lands and indigenous villages.	This is an outer area or undeveloped area of the city with the availability of large chunk of customary (uncontrolled) land. Low supply of housing and poverty resulted in mushrooming of informal settlements in this zone. As per City Assembly 2005 data, t	Formalization and upgrading projects for the informal settlements shall be in strong demand, since some areas of this zone shows a caotic situation in land use. It is confused with Institutional development, light industry, traditional housing areas and c	Partially developed infrastructure. Zone is basically served with earth roads and mud lanes. Use of septic tanks and pit latrines in the zone. Not all have a safe access to sanitation. Electricity not fully reticulated. Water supply by Lilongwe Wate	With an addition of area 58, there is conflict between urban and rural land and development. Being a critical issue, the development need to be done in phased manner to satisfy both communities. Landowner ship and regulation are still a issue and need to be
12	Ngwenya Zone	22,23,24,36,38	This zone is the highest rapidly increasing high density traditional housing area. The haphazard or urban sprawl development can be observed in this zone. Despite this, a large chunk of land area is available for further development.	As per Census 2008, this zone has a total population of 154,971. Most populated zone. In last 10 years this zone experienced the rapid increase in population. It increased by 80.9%. This zone has the density of 50.8 per/ha. This zone has an area of ap	This zone's land is shared between Ministry of Lands, Lilongwe City Assembly and District Assembly (Customary Land with village settlement) The typical land uses in this zone are medium density housing, high density permanent housing, bare lands and inf	This zone to exist in the extreme end of the city with the availability of large chunk of uncontrolled land. Low supply of housing, serviced land and poverty resulted in mushrooming of informal settlements in this zone. As per City Assembly 2005 data, th	This zone needs formalization and upgrading projects as well, since the land use of this zone is placed in disorder. There exist a confusion of traditional, permanent, institutional, light industry and customary village development. Area 22, 23, 24 and 3	Partly serviced with roads without proper drains The Main M1 road is the main primary road to the area, the rest are earth roads and narrow mud lanes. Electricity is accessible in certain areas. Water supply has been provided in certain area. The res	Informal land subdivision and encroachments on road reserves need to regulated and planned. Unserved land, no proper roads, and drains in most areas, and no layout plans for some areas resulting into scattered development. Urban sprawl need to be regul

Note - Quantitative data & figures mentioned are approx. and are based on initial analysis (subject to change).

Considering parameters such as population, area, unplanned settlements, land use and land ownership, housing and infrastructure, the twelve proposed urban zones can be summarized as follows:

Alimaunde (ALM) – This area is known for the existence of the International Airport. This zone also contains a large vacant area which is currently used for agriculture activities. Among the 12 zones, Alimaunde has the largest area with plenty of scope for further development.

Lumbadzi (LUM) – This zone consists partly of a residential area supporting the airport activities. A further large area is bare land with indigenous villages and unplanned settlements.

Mvunguti (MVN) – This zone is experiencing a rapid increase in population with a high concentration of high density traditional housing. The major development is in the central region of this zone although it is rapidly expanding in all directions.

Kanengo (KAN) - This is considered an industrial area but the majority of the activities are in fact storage facilities rather than manufacturing or processing products. A large number of warehouses along with a Freight Railway Station exist in this zone.

Mariya (MRY) - This zone mainly consists of a high density traditional residential area. This zone is experiencing a rapid increase of population in the southern area. In addition, a large area of vacant land is available for further development.

Chimutu (CMT) - This is a residential area with a mix of high density permanent, medium density and low density residential settlements. The majority of the development is on the eastern side of this zone.

Nyama (NYM) - This is low population density area with an institutional area dedicated for Police activities. The majority of the upper region of this zone is vacant and available for further development.

Tsabango (TBN) - This zone has the 4th largest area among the 12 zones. The zone is dominated by State house (the President's residence) along with Military activities. This zone also has a large vacant area with a high potential for further development.

City Centre (CCT) - This zone is a typical administrative and service centre of a city. It consists of Natures Sanctuary area which has a very high potential to develop as major recreational centre/area in the city. In general other areas are developed with few pockets of land area available for further development.

Old Town (OTN) - This is the old traditional area of the city. It has a typical mix of land uses with the highest population density among the 12 zones. As per current land use and planning standards, it is almost developed to its full potential. However, as of typical old areas in any other part of the developing world, this zone is also facing problems such as parking, traffic, lack of parks and gardens, etc.

Chinsapo (CSP) - This zone is a high density traditional housing area. This zone also has a large area of land that is currently used for agriculture and other activities (green areas). The study zone includes 'Area 58' which is customary land with typical indigenous villages.

Ngwenya (NWY) - This zone is the most rapidly increasing high density traditional housing area. Haphazard urban sprawl development can be observed in this zone. Despite this, a large chunk of land area is available for further development.

Demographic Profile of the Urban Zones

Typical demographic features such as population size, population density and zone area were analyzed for the twelve proposed urban zones. The zones were compared in terms of population increase in last 10 years (1998-2008), density and zone areas. Figures 2, 3 and 4 illustrate the numerical comparisons. The spatial comparison is shown in Figures 5, 6, 7, and 8. Please note that the areas mentioned below are approximate and are subject to change during boundary finalization in consultation with Lilongwe City Council and other concerned departments.

Alimaunde (ALM) – As per the 2008 Census data, this zone has a total population of 18,876. In the last 10 years the population increased by approx. 20.2%. As there is a large undeveloped area, the population density is quite low (2.4 per/ha). This zone has an area of approx. 7,919 ha. (refer to Figures 2 to 8)

Lumbadzi (LUM) – As per the 2008 Census data, this zone has a total population of 23,942. In the last 10 years (1998-2008) population increased by approx. 55.3%. This is one of the most rapidly developing areas, however it is still has a low population density (7.3 per/ha). This zone has an area of approx. 3,265 ha.

Mvunguti (MVN) – As per the 2008 Census data, this zone has a total population of 71,698. In the last 10 years (1998-2008) this zone experienced a rapid increase in population. The population increased by 61.3%. This is one of the most rapidly developing areas, with a population density of 17.4 per/ha. This zone has an area of approx. 4,117 ha.

Kanengo (KAN)- As per the 2008 Census data, this zone has a total population of 45,957. In the last 10 years (1998-2008) this zone experienced a rapid increase in population; by 66.9%. The population is mainly concentrated in areas 39, 50 and 51. This zone has a density of 27.3people per/ha. It was surprising to observe the high population and density in an Industrial area. This zone has an area of approx. 1,682 ha.

Mariya (MRY) - As per the 2008 Census data, this zone has a total population of 62,187. In the last 10 years (1998-2008) this zone experienced rapid increase in population. The population of this zone increased by 75%. This zone has population a density of 36.7 per/ha and an area of approx. 1,693 ha.

Chimutu (CMT) - As per the 2008 Census data, this zone has a total population of 30,801. In last 10 years (1998-2008) this zone experienced the decline in population. It decreased by 8.3%. This zone has a density of 11.6 per/ha. This zone has an area of approx. 2,665 ha.

Nyama (NYM) - As per the 2008 Census, this zone has a total population of 10,175. In last 10 years (1998-2008) this zone also experienced the decline in population. The population of this zone decreased by 9.0%. This zone has a low density of 4.4 per/ha. This zone has an area of approx. 2,326 ha.

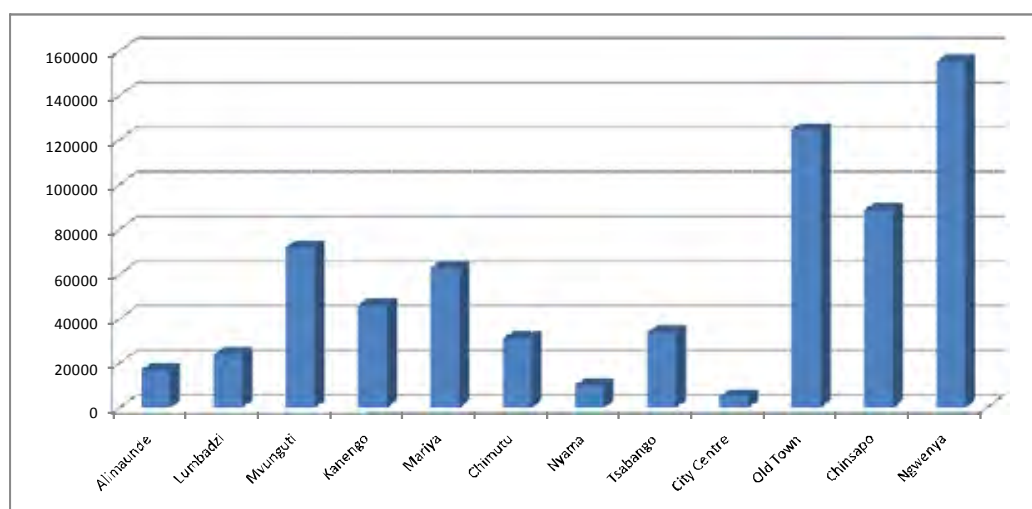
Tsabango (TBN) - As per the 2008 Census data, this zone has a total population of 33,729. In last 10 years (1998-2008) this zone experienced the rapid increase in population. It increased by 83.5%. This zone still has a low density of 7.8 per/ha and has a potential for further development. This zone has an area of approx. 4,324 ha.

City Centre (CCT) - As per the 2008 Census data, this zone has a total population of 5,109. In last 10 years (1998-2008) this zone experienced the increase in population. It increased by 22.9%. This zone still has a low density of 3.2 per/ha. This zone has an area of approx. 1,612 ha.

Old Town (OTN) - As per the 2008 Census data, this zone has a total population of 124,531. This is the second highest populated zone among the 12 urban zones. In last 10 years this zone experienced the increase in population. It increased by 19.4%. This zone has the highest density of 75.7 per/ha. This zone has an area of approx. 1,644 ha.

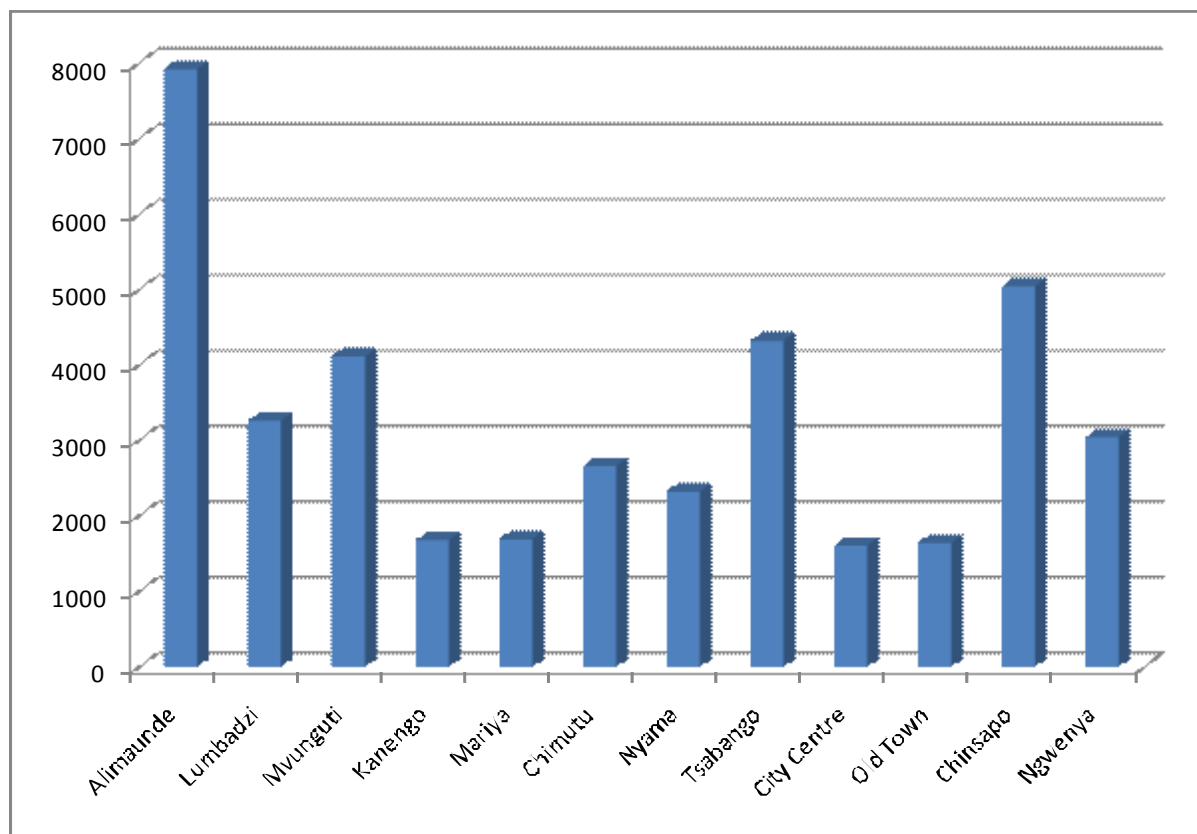
Chinsapo (CSP) - As per the 2008 Census data, this zone has a total population of 88,453. This is a third highest populated zone among the 12 urban zones. In last 10 years this zone experienced the rapid increase in population. It increased by 63.1%. This zone has the density of 17.5 per/ha. This zone has an area of approx. 5,047 ha.

Ngwenya (NWY) - As per the 2008 Census, this zone has a total population of 154,971. This is the most populated zone among the 12 urban zones. In last 10 years this zone experienced the rapid increase in population. It increased by 80.9%. This zone has the density of 50.8 per/ha, which is second highest among the 12 urban zones. This zone has an area of approx. 3,049 ha



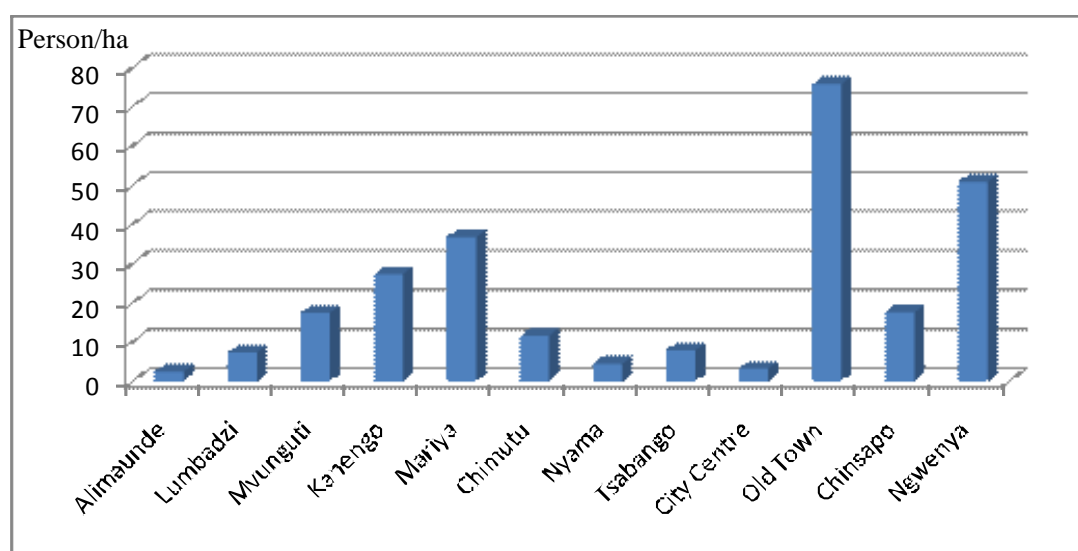
Source: JICA Study Team by using 2008 CENSUS

Figure 2 2008 Population by Zone



Source: JICA Study Team, using GIS data compiled by the current land use survey conducted by JICA Study Team

Figure 3 Land Area by Zone



Source: JICA Study Team, on the basis of 2008 CENSUS and

GIS data compiled by the current land use survey conducted by JICA Study Team

Figure 4 Population Density by Urban Zones

Source: JICA Study Team

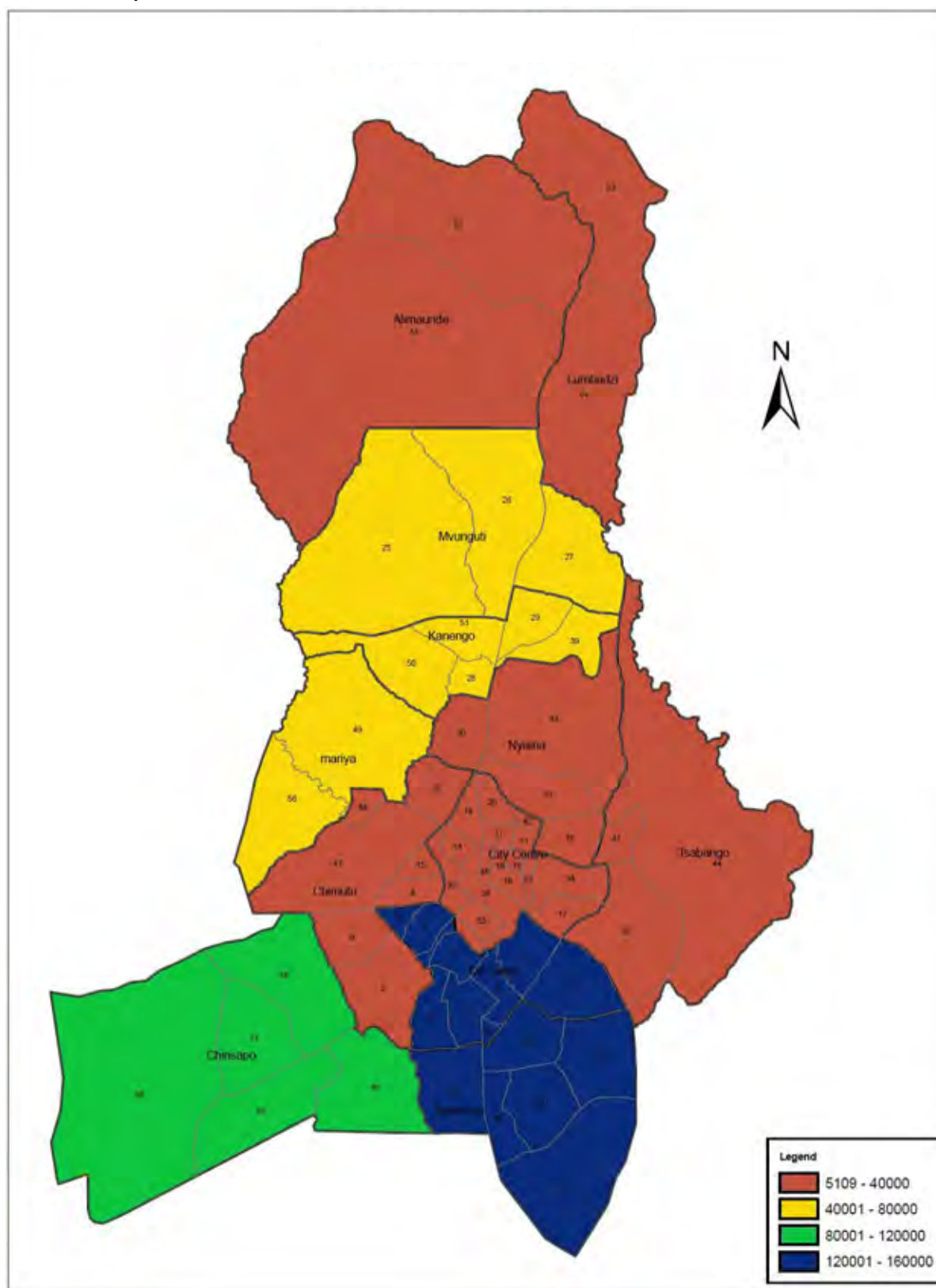
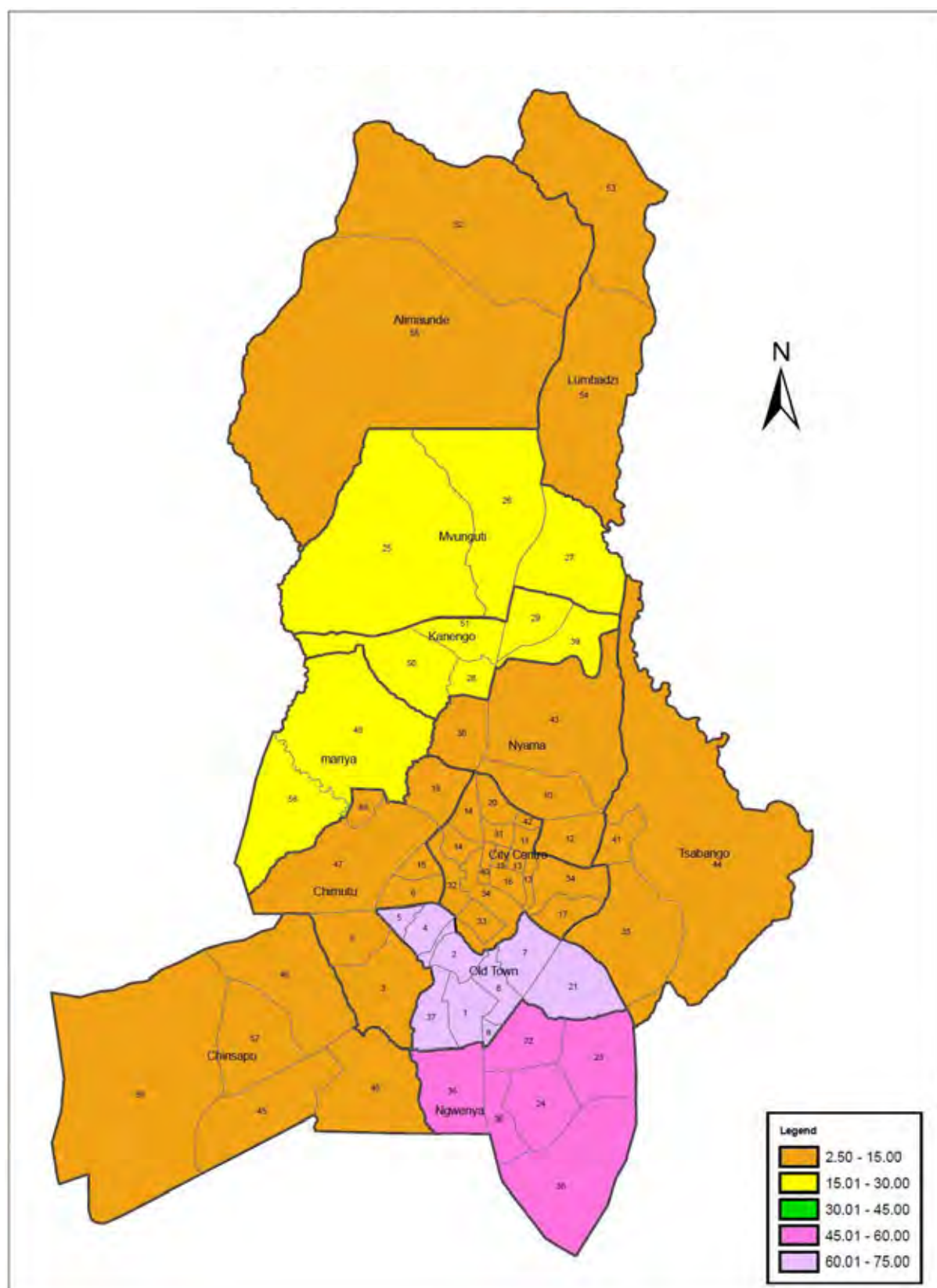
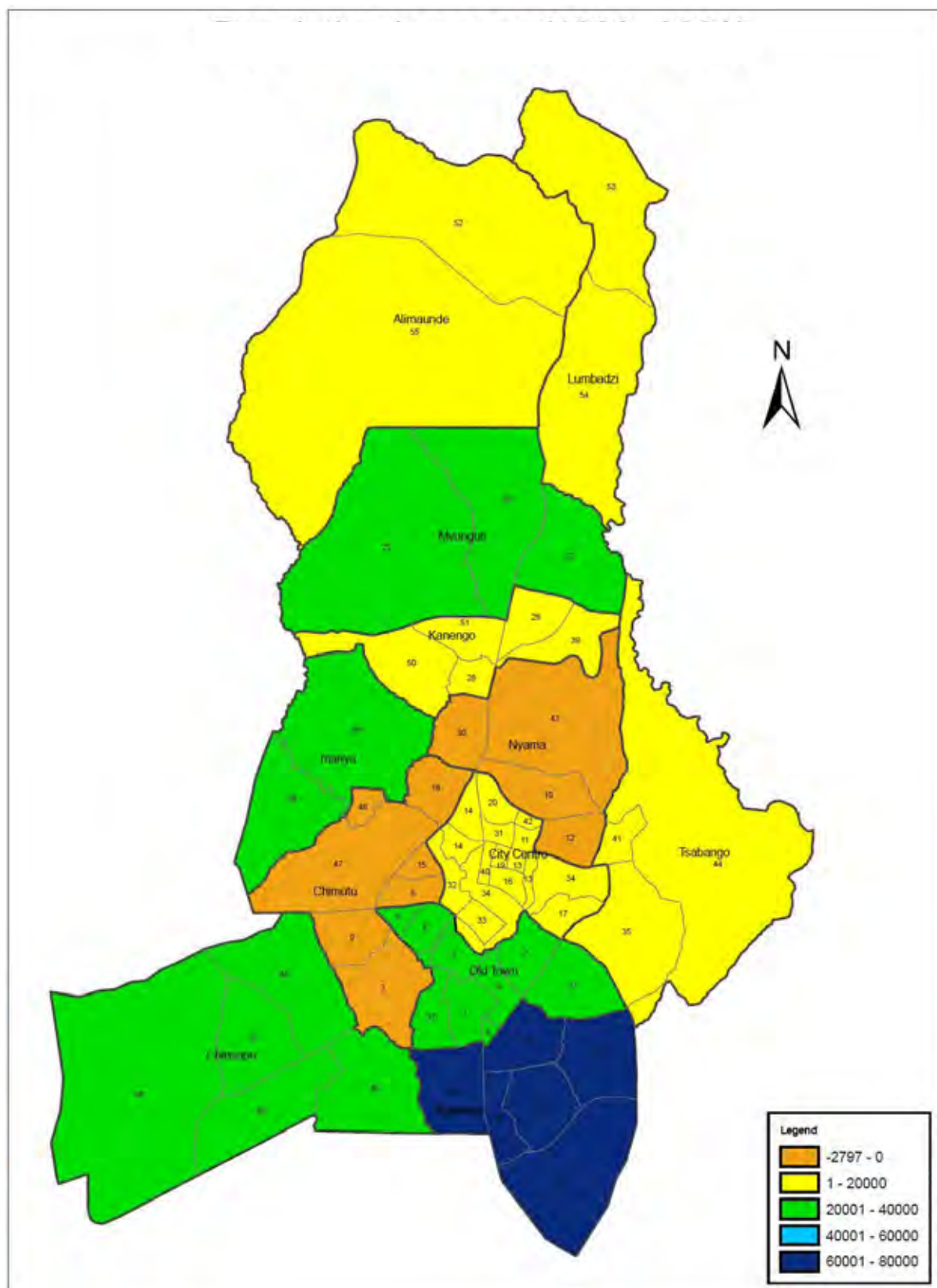


Figure 5 Population Distribution in Urban Zones (2008)



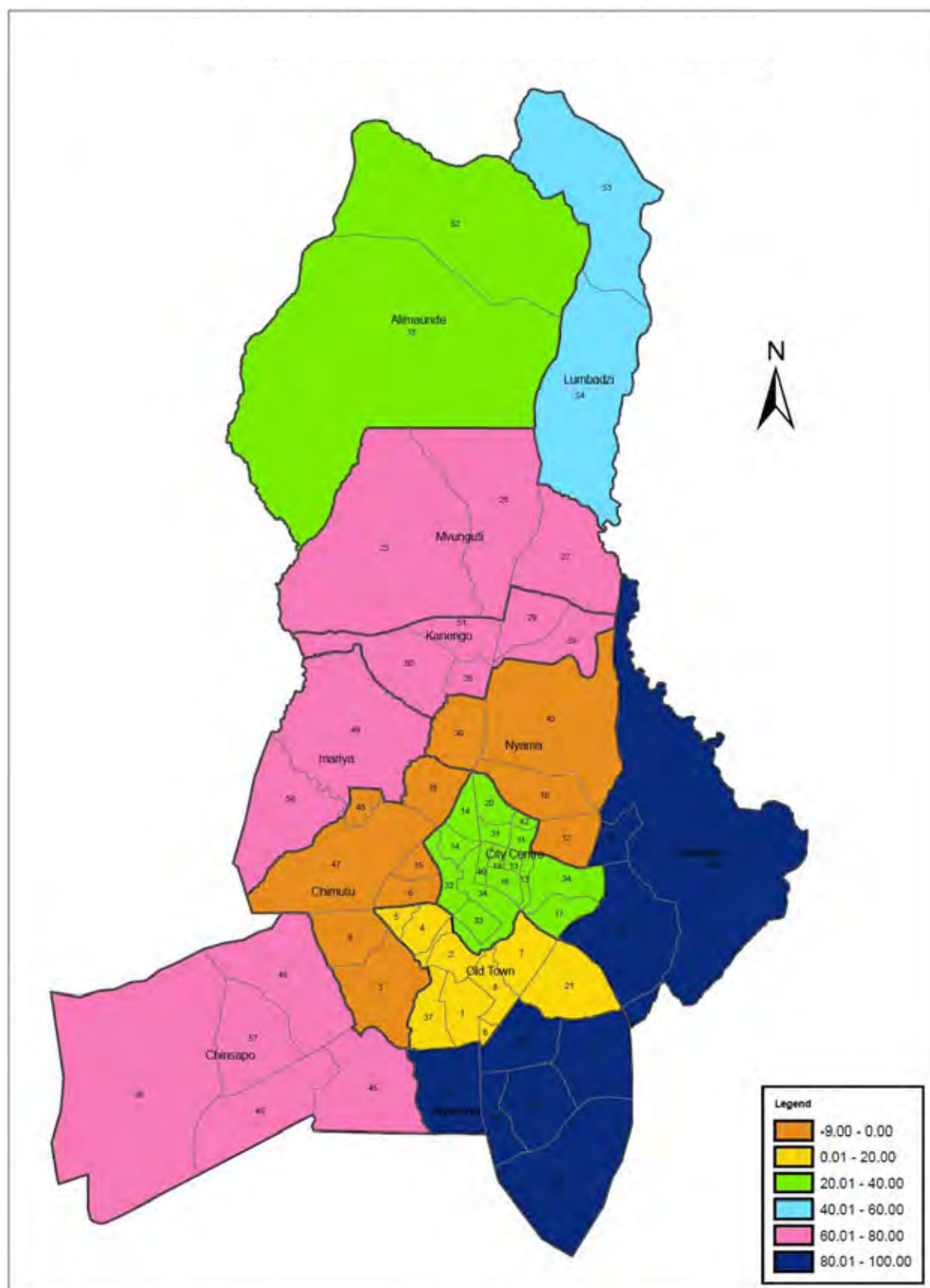
Source: JICA Study Team

Figure 6 Population Density in Urban Zones (2008)



Source: JICA Study Team

Figure 7 Population Increase in the last 10 years (1998-2008)



Source: JICA Study Team

Figure 8 Percentage Population Increase in the last 10 years (1998-2008)

Unplanned Settlement in the Urban Zones:

According to Lilongwe City Council, more than 43% of the total city population is either living in unplanned areas or squatter settlements. As per 2005 data, a total population of 277,762 was living in unplanned areas and squatter settlement. Analysis of the growth of unplanned settlements shows that the population in unplanned settlement is continuously increasing at a rapid pace. As per Lilongwe City Council data, the population in unplanned settlement was 82,180, 100,674, 141,201, 277,762 in the years 1987, 1990, 1995 and 2005 respectively. For details refer to Table-2. In the ten year period of 1995 to 2005, the population in unplanned settlement almost doubled.

Table 3 Growth of Unplanned Settlement Population in Zones							
Urban Zones	Abv.	1987	1990	1991	1995	2000	2005
Alimaunde	ALM	10066	12331	13193	17296	24259	34022
Lumbadzi	LUM	7966	9760	10444	13686	18197	26925
Mvunguti	MVN	6726	8239	8816	11557	16209	22732
Kanengo	KAN	12990	15913	17028	22319	31302	43904
Mariya	MRY	1521	1864	1993	2614	3666	5141
Chimutu	CMT	0	0	0	0	0	0
Nyama	NYM	0	0	0	0	0	0
Tsabango	TBN	8105	9929	10623	13926	19532	27395
City Centre	CCT	0	0	0	0	0	0
Old Town	OTN	9569	11722	12542	16441	23060	32342
Chinsapo	CSP	12628	15469	16552	21697	30430	42682
Ngwenya	NWY	12609	15447	16528	21665	30386	42619
Total		82180	100674	107719	141201	197041	277762

Source: JICA Study Team, by using 2005 Survey on Unplanned Settlements

The rapid growth of unplanned settlement population was observed especially in areas 57, 55, 36, 44, 2, 53, 51 and 25. In area 57, the unplanned settlement population growth was highest. For further details refer to Figure 9.

The three leading zones in 2005 in terms of unplanned population were Kanengo, Chinsapo and Ngwenya. Surprisingly, no unplanned settlement population was reported in Chimutu, Nyama and City Centre. Thus the growth of population in unplanned settlement can be observed in the zones having plenty of open space and those where job opportunities are available in the vicinity area. For details refer to Figures 10 and 11. The unplanned settlement population growth also follows the general population growth pattern and is increasing in the southern part of Lilongwe city. For spatial analysis, refer to Figures 12 and 13.

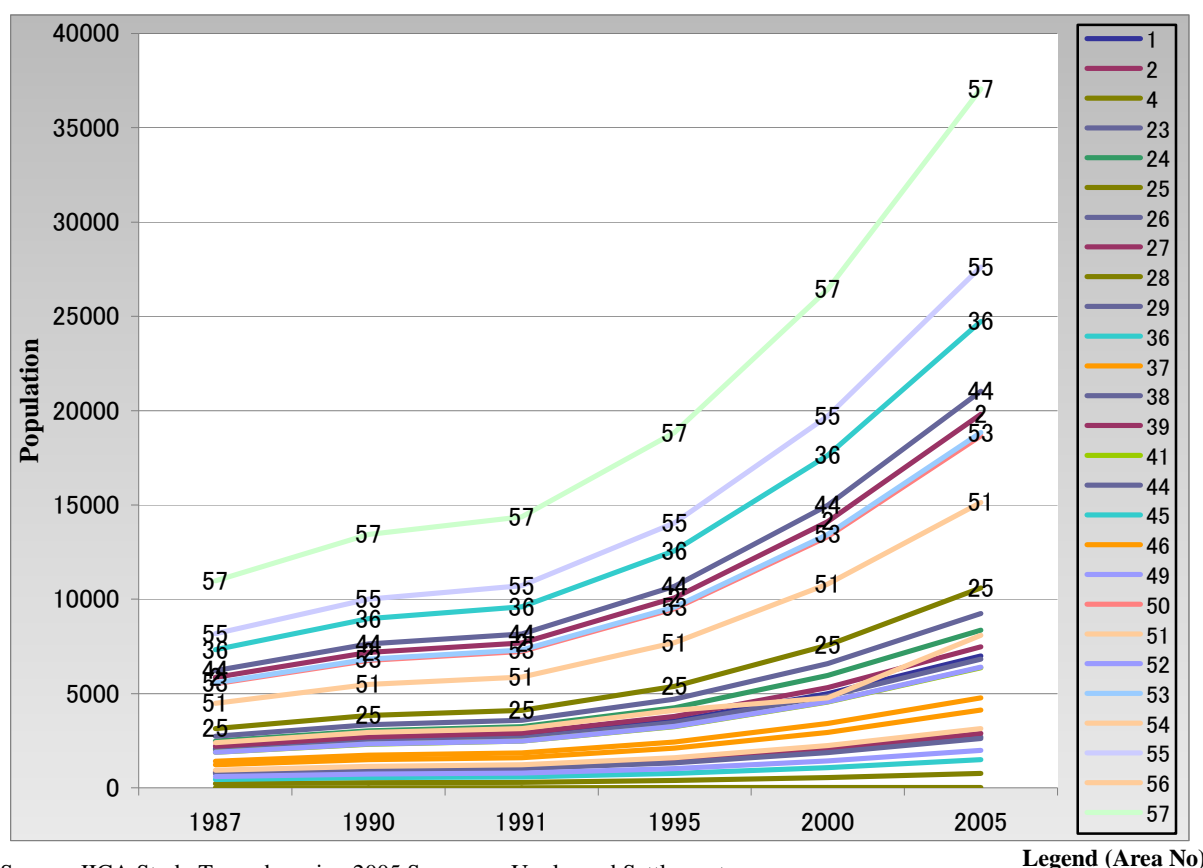


Figure 9 Unplanned Settlements Population Growth in Urban Areas of Lilongwe City

Below is a brief description of the unplanned settlements in each zone:

Alimaunde (ALM) – As a large vacant area is available and with limited control, the unplanned settlements are increasing rapidly. As per City Council 2005 data, the total unplanned settlement population was 34,022. During 1995-2005, the unplanned settlement population almost doubled. The unplanned settlements are scattered without having any access to basic services. The people are basically dependent on petty jobs and seasonal cultivation.

Lumbadzi (LUM) – As this zone is near to the Airport area, it seems the unplanned settlements have grown to support the residential area. As per City Council 2005 data, the total unplanned settlement population of this zone is approx. 26,925. During 1995-2005, the unplanned settlement population in this zone almost doubled.

Mvunguti (MVN) – As this zone is near to the industrial area, the unplanned settlements are on the rise and are supporting the industrial activities. As per City Council 2005 data, the total unplanned settlement population of this zone is approx. 22,732. During 1995-2005, the unplanned settlement population in this zone almost doubled.. The people in this area are dependent on daily wages jobs supporting the industrial area.

Kanengo (KAN)- The demand for cheap labor in this industrial zone resulted in the rapid increase of unplanned settlements. As per City Council 2005 data, the total unplanned settlement population in this zone is approx. 43,904 which is the highest among the 12 zones. During 1995-2005, the unplanned settlement population in this zone almost doubled. The unplanned settlements in general are concentrated near the labour intensive industries/warehouses. The people in general are dependent on daily wages jobs supporting the industrial area.

Mariya (MRY) - Despite being near to the Industrial zone, it seems that the industrial activities have a limited influence to unplanned settlements. The unplanned settlement population in this zone seems to support the residential areas that exist in nearby zones such as Chimutu. As per City Council 2005 data, the total unplanned settlement population in this zone is low at approx. 5141 (the lowest among the zones where unplanned settlements exist). Despite the low population, during 1995-2005, the unplanned settlement population in this zone almost doubled.. The people in this area are in general dependent on petty jobs, however, few are also engaged in the formal employment sector.

Chimutu (CMT) - No unplanned settlements are reported in this zone. As most of the area is developed, with limited vacant spaces, the mushrooming of unplanned settlements in this zone is automatically controlled.

Nyama (NYM) - As per Lilongwe City Council 2005 data no unplanned settlements are reported in this zone. Despite the above data, some unplanned settlements were observed in the east of Area 10. As most of the area is developed with limited vacant spaces, the mushrooming of unplanned settlements in this zone is automatically controlled. Sporadic indigenous villages can also be observed in certain parts of Area -43.

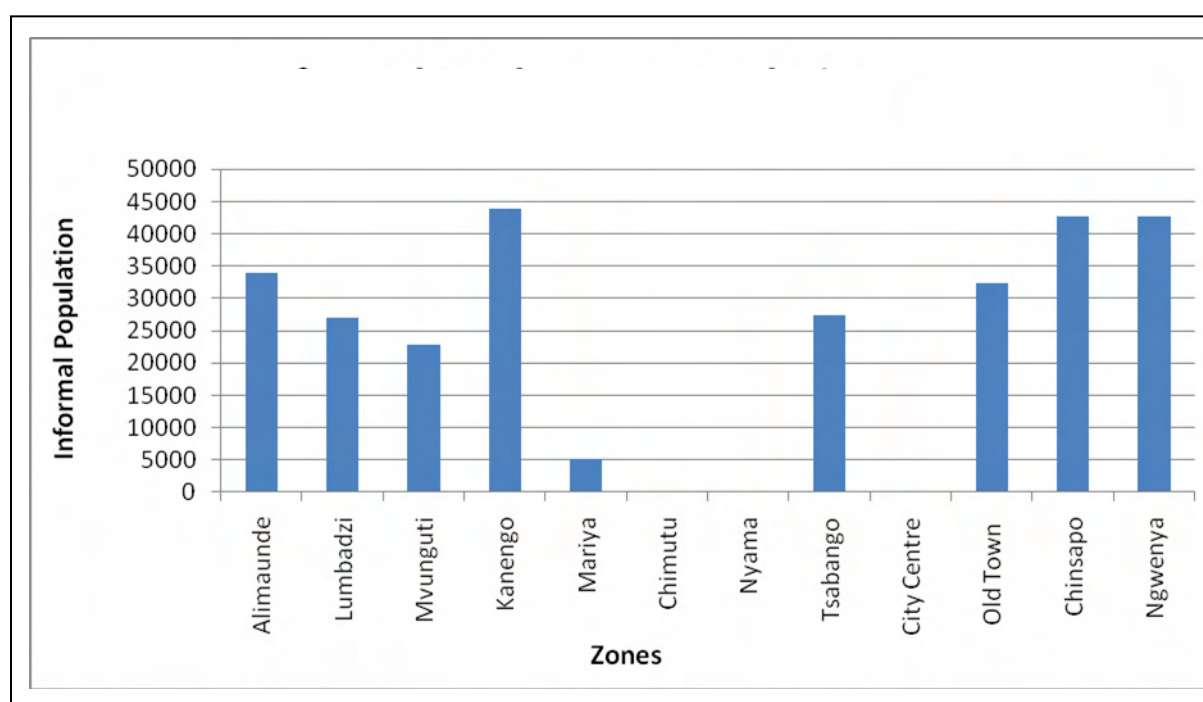
Tsabango (TBN) - Despite housing the State House and a military establishment, this zone has a presence of unplanned settlements. As a large parcel of vacant land is available, it has provided an opportunity for poor and low income populations to settle. As per City Council 2005 data, the total unplanned settlement population in this zone is approx. 27,395. During 1995-2005, the unplanned settlement population in this zone almost doubled.. The people in general are dependent on daily wages, seasonal cultivation and petty jobs.

City Centre (CCT) - No unplanned settlements are reported in this zone. As most of the area is developed, with limited vacant spaces and not much scope for labor based jobs, the mushrooming of unplanned settlements in this zone is automatically controlled.

Old Town (OTN) - Despite non availability of vacant lands and due to the many opportunities for work in the Old Town area, this zone has a presence of unplanned settlements. As per City Council 2005 data, the total unplanned settlement population in this zone is approx. 32,342. During 1995-2005, the unplanned settlement population in this zone almost doubled. As this zone has the highest population density, the unplanned settlements in general are scattered. The people in general are dependent on daily wages, and petty jobs.

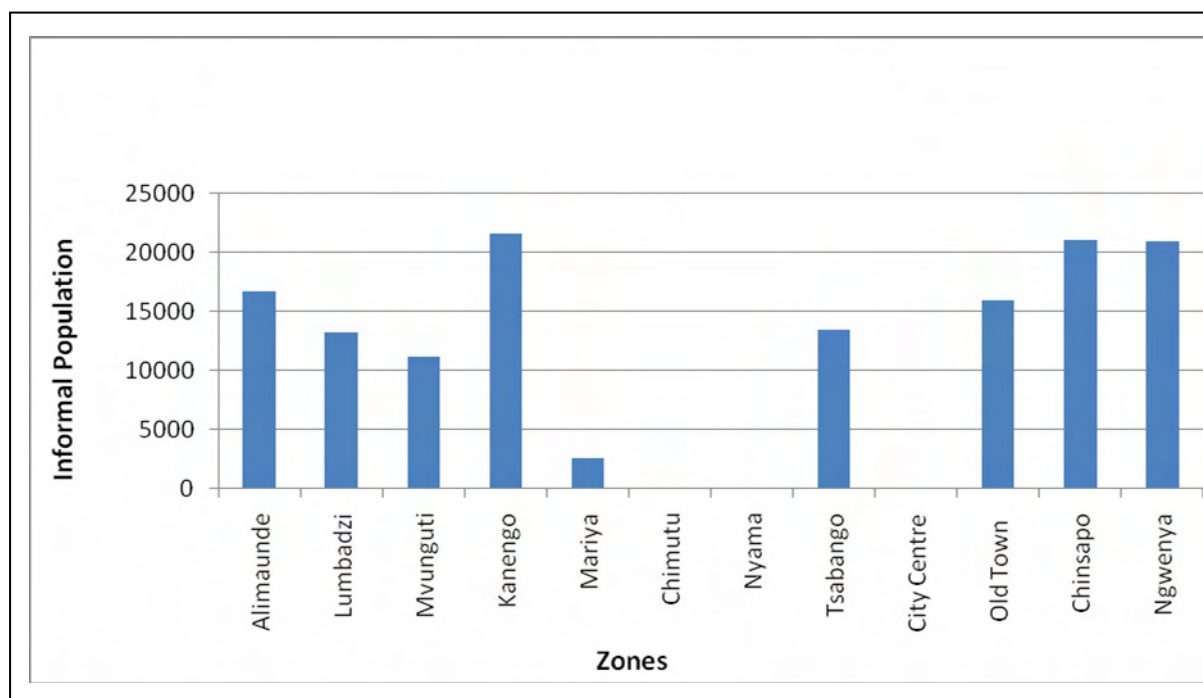
Chinsapo (CSP) - This is an outer area or undeveloped area of the city with the availability of a large parcel of customary (uncontrolled) land. A low supply of housing along with poverty resulted in mushrooming of unplanned settlements in this zone. As per City Council 2005 data, the total unplanned settlement population in this zone is approx. 42,682 which is the second highest among the 12 zones. During 1995-2005, the unplanned settlement population in this zone almost doubled. The people in general are dependent on cultivation and petty jobs.

Ngwenya (NWY) - Due to the availability of a large parcel of uncontrolled land, the low supply of housing, serviced land and poverty resulted in mushrooming of unplanned settlements in this zone. As per City Council 2005 data, the total unplanned settlement population in this zone is approx. 42,619 which is the third highest among the 12 zones. During 1995-2005, the unplanned settlement population in this zone almost doubled. In this zone, the unplanned settlements are concentrated but are spreading informally in vacant available areas. The people in general are dependent on cultivation and petty jobs.



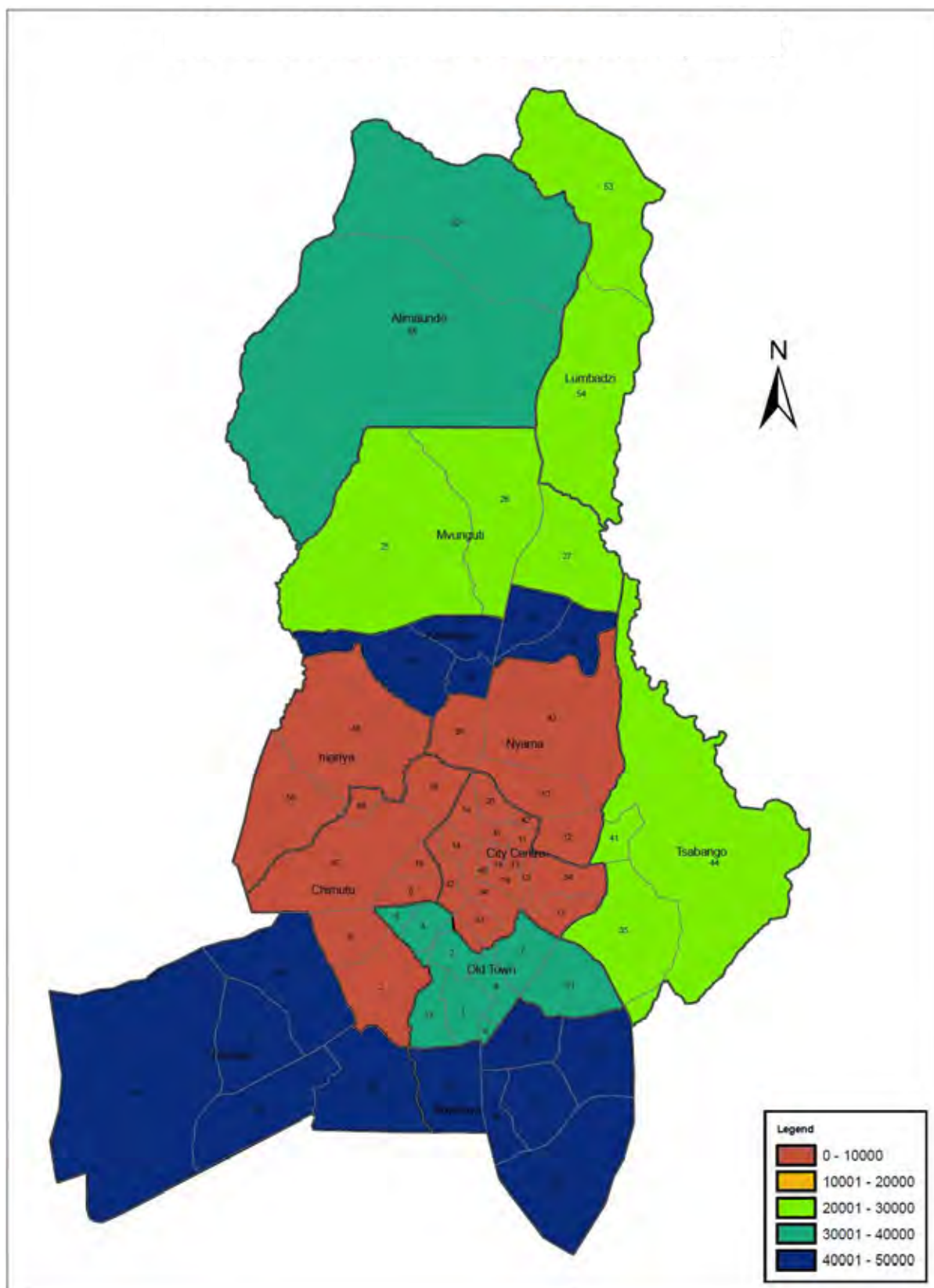
Source: JICA Study Team, by using 2005 Survey on Unplanned Settlements

Figure 10 Unplanned Settlements Population in Urban Zones in 2005



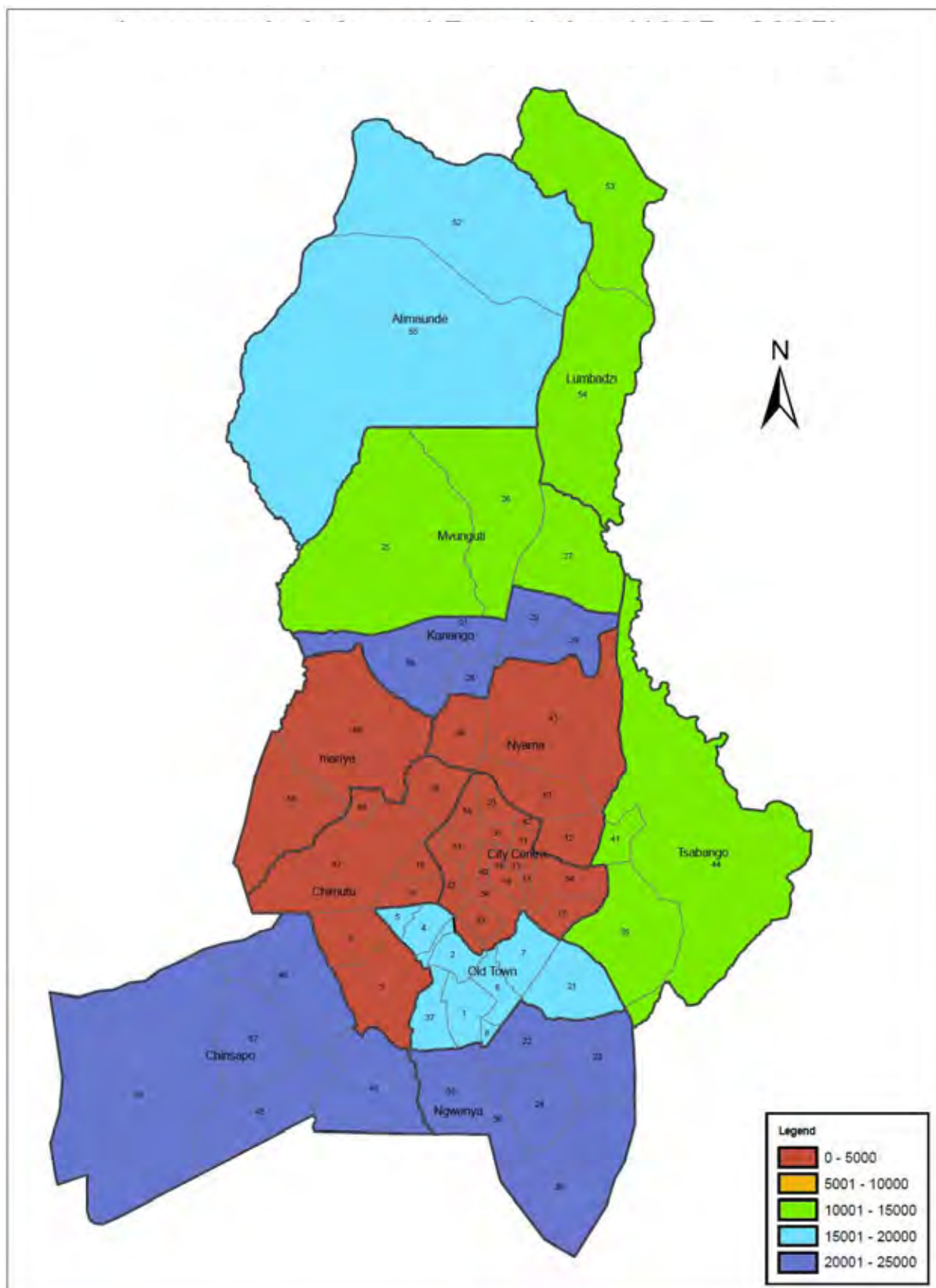
Source: JICA Study Team, by using 2005 Survey on Unplanned Settlements

**Figure 11 Increase in Unplanned Settlements Population in 10 years (1995-2005)
in Urban Zones**



Source: JICA Study Team, by using 2005 Survey on Unplanned Settlements

Figure 12 Unplanned Settlement Population in 2005 in Urban Zones



Source: JICA Study Team, by using 2005 Survey on Unplanned Settlements

Figure 13 Increase in Unplanned Settlement Population in 10 years (1995- 2005)

Land use and Land Ownership in Urban Zones

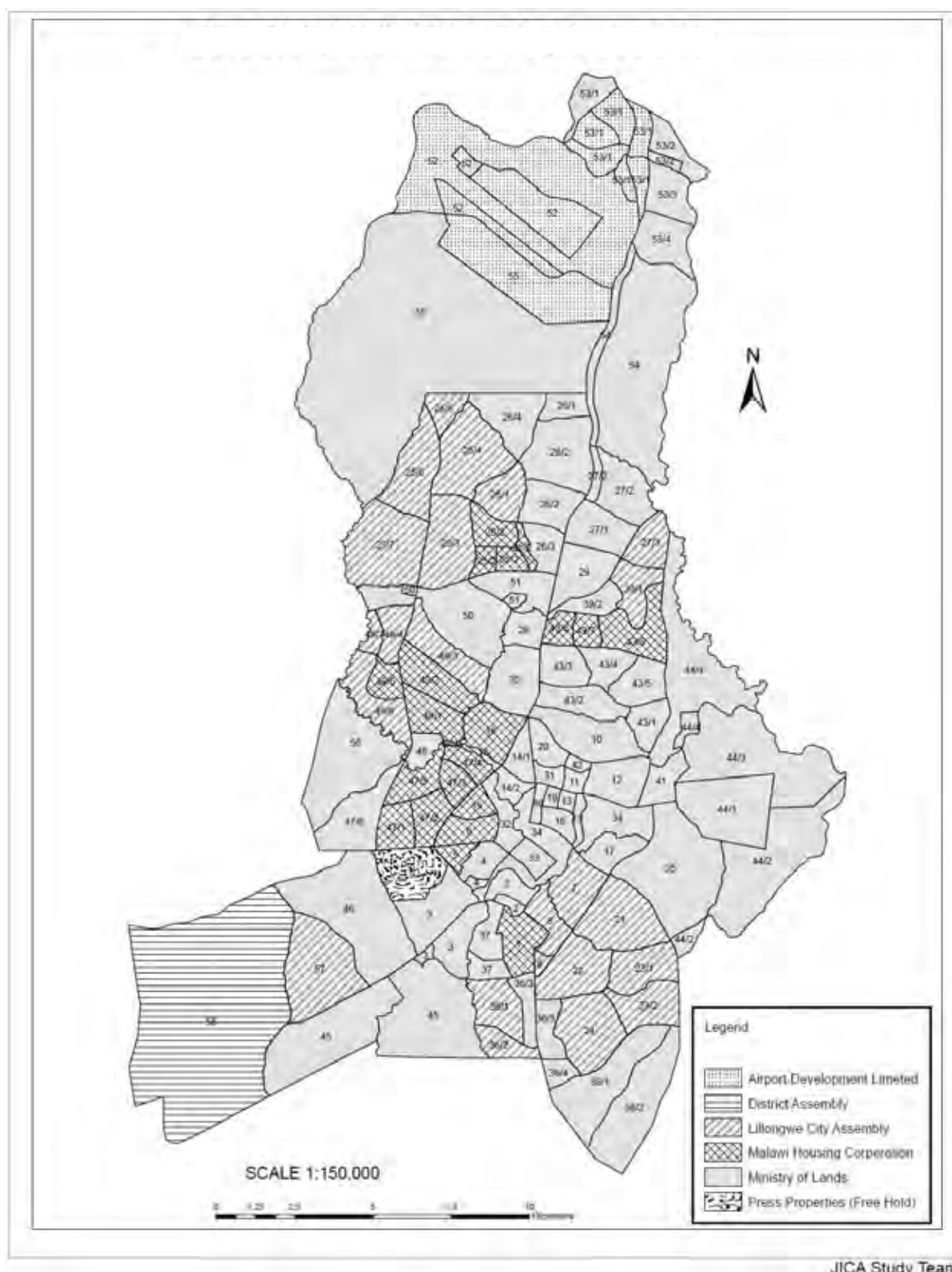
In the absence of any revised development plan or Master Plan, the city of Lilongwe has been in an uncontrolled manner since 2000 when the 1986 Outline Zoning Scheme lost its effect.

For the purpose of creating a basic urban profile, the study team zoned the entire study area into 12 zones and analyzed the typical land use and land ownership in each zone. In discussion with various officials from Lilongwe City and the Physical Planning Department, the study team prepared a draft land ownership map for Lilongwe City (subject to future change following further analysis), which is presented in Figure-14. The majority of the land in the study area is owned by the following five bodies:

- Airport Development Limited (ADL)
- District Assembly (specifically the land of Area-58). This is customary land under adjudication title to individual family units.
- Lilongwe City Council (LCC)
- Ministry of Lands
- Press Properties (Free Hold) and Private Individuals.

Typical land use categories in the city are as follows
:

Typical Land uses in Lilongwe City	
	Land uses
1	Low density Housing
2	Medium density housing
3	High density permanent housing
4	High density Traditional housing
5	Large Commercial Areas
6	Small Commercial Areas
7	Heavy Industrial Area
8	Light & Service Industrial Area
9	Institutional
10	Agriculture/Cultivation Area
11	Leisure & Sports Area
12	Government & State house area
13	Rivers/Water Bodies
14	Informal Settlements
15	Indigenous Villages
16	Bare Land/Open spaces
17	Forest/Green Areas



Source: JICA Study Team

Figure 14 Land Ownership Map for Lilongwe City

The section below will discuss the typical land uses and land ownership in each zone:

Alimaunde (ALM) – This zone is principally owned by Airport Development Limited and the Ministry of Land, who own half of the total land. The typical land uses in this zone are Airport use, cultivation, indigenous villages and unplanned settlements.

Lumbadzi (LUM) –Land ownership is shared between Airport Development Limited and the Ministry of Land, who own the majority of the land. Ministry of Land areas are currently used as customary land. The typical land uses in this zone are medium density housing, cultivation, airport use, unplanned settlements and bare land (as against the forest use as designated in Outline Zoning Scheme).

Mvunguti (MVN) –Land ownership is shared between Lilongwe City Council and Malawi Housing Corporation. The majority of the land in this zone is owned by Lilongwe City Council. The typical land uses in this zone are high density traditional housing, medium density housing, bare land and unplanned settlements. Private Hospitals are also located in this zone.

Kanengo (KAN) - Most land in this zone is owned by the Ministry of land, although some is owned by Lilongwe City Council (a part of Area-39). The typical land uses in this zone are industrial use, warehouses, high density permanent housing, bare land and unplanned settlements.

Mariya (MRY) - Land ownership is shared between the Ministry of Lands, Malawi Housing Corporation, and Lilongwe City Council. The typical land uses in this zone are high density traditional, high density permanent housing, bare land and unplanned settlements.

Chimutu (CMT) – In this zone land ownership is shared between the Ministry of Lands, Malawi Housing Corporation, Press Properties, and private Owners (Freehold Property). Typical land uses in this zone are high density permanent housing, medium density housing and low density housing. The area owned by private Owners is a low density housing area.

Nyama (NYM) - This zone land is owned by the Ministry of Land and Malawi Housing Corporation (MHC). The typical land uses in this zone are low density housing, medium density housing and a police area.

Tsabango (TBN) - This zone is mainly owned by the Ministry of Land. The typical land uses in this zone are State house, Military uses, forest, unplanned settlements and bare lands.

City Centre (CCT) - This zone is mainly owned by the Ministry of Land. The typical land uses in this zone are, Business and Administrative Use, Institutional Area and Nature Sanctuary Area.

Old Town (OTN) - This zone's land is shared between the Ministry of Lands, Malawi Housing Corporation and Lilongwe City Council. The typical land uses in this zone are commercial, medium density housing, high density permanent housing and light industry (agro processing). Many informal economic activities are also observed in this area.

Chinsapo (CSP) – Land ownership in this zone is shared between the Ministry of Lands, Malawi Housing Corporation and the District Assembly. The typical land uses in this zone are cultivation, unplanned settlements, medium density housing, bare lands and indigenous villages.

Ngwenya (NWY) - This zone's land is owned by the Ministry of Lands, Lilongwe City Council and the District Assembly (Customary Land with village settlement) The typical land uses in this zone are medium density housing, high density permanent housing, bare lands and unplanned settlements.

Housing Profile in the Urban Zones

Housing development in Lilongwe City is provided by several institutions such as Malawi Housing Corporation (MHC), the City Council, the Lands Departments and private companies and individuals (either by developing plots or direct house construction for rent or sale).

NSO data and other sources showed that, about 20.3% of houses in Lilongwe city had grass thatch and 54.6% were built of un-burnt bricks (NSO, 2007:53). In 2005 only 57.7% of houses were classified as permanent (NSO, 2005:84).

MHC controls about 22% of land in the city and has 1198 houses in Lilongwe City with a total of 49,680 applicants on the waiting list.

The City Council has supplied a total of 43,500 plots. Of these plots 11,850 were inherited from Capital City Development Corporation (CCDC) and 400 from MHC. The remainder of 31,000 was developed by the City Council directly after taking housing development in THAs from MHC in 1992. The figure includes 6000 plots in regularised squatter areas.

The Department of Lands uses the urban development fund to develop plots in medium and low density areas. The fund does not benefit low income areas because these are meant to be serviced by the City Council.

Airport Development Limited (ADL), the major developer of the Lumbadzi sector, has 847 houses of various sizes and has already prepared land use plans for the development of over 2500 housing plots to be allocated to and developed by households and the private sector.

In general, the majority of houses in the city are built by individual households either for their own occupation, sale or rent. Rough estimates would suggest that close to 90% of houses are constructed by individual households.

Below is the description of housing in each zone:

Alimaunde (ALM) – This zone consists of Area 52 and mainly comprises the Airport area with associated runway and buildings. It also contains Area 55 which is a horticulture area. Some sporadic village settlements and farming and some institutional buildings e.g. police also exist.

Lumbadzi (LUM) – In this zone, ADL has 845 houses of medium and high density with 500 and 750 medium and high density new subdivisions. There are proposals for 2500 plots to be subdivided for

private development by ADL. Areas 53/2, 3 & 4 are heavily squatted by unplanned high density traditional settlements and a commercial development. The zone has traditional village settlements extending to Area 54.

Mvunguti (MVN) – The zone is largely a high density traditional housing area with a small area of high density permanent housing and institutional development. Part of the area has been leased for large scale private sector housing development (Kanengo Northgate). The area also houses the Malawi Institute of Management. There are sporadic village settlements and farmland.

Kanengo (KAN)- This zone is mainly an industrial area which is heavily encroached by unplanned settlements especially in areas 50, 51 and 39. Some village settlement also exists in this zone.

Mariya (MRY) – This zone consists of high density traditional housing and high density permanent area in areas 49/1 and 5. Area 56 is a squatter settlement area with village settlements e.g. Mtandire, Mtsiliza, Pearson etc. The rest of the area 49/6 is farmland. There is a proposal by MHC to construct high rise low income housing along with developing new plots in this zone.

Chimutu (CMT) – This zone is largely low, medium and high density permanent residential areas with privately and institutionally owned planned and permanent houses .

Nyama (NYM) – This zone is largely composed of low density permanent residential areas and institution development. The development is permanent standard housing, mostly privately built and government buildings.

Tsabango (TBN) - This zone is a combination of institutional, office development and low density permanent housing. In addition, certain area is used as barracks for the Malawi Defense Forces.

City Centre (CCT) - This zone consists of mix of medium density permanent housing (flats), institutional development, office space, limited commercial development, shops, banks, hospital development etc. There is a proposal for a new City Centre in this zone. Diplomatic mission offices and government offices also exist in this zone. Construction of a new Parliament building and cultural centre is currently underway.

Old Town (OTN) – This is a typical old town area with high density permanent, medium density permanent and high density traditional housing areas. Some light industry development also exists in this zone. This zone is also known for commercial activities and the central business district (CBD).

Chinsapo (CSP) – This zone has a mixed development with Institutional development, light industry, traditional housing areas and customary village development. Encroachment of housing development on farm land can be observed in this zone. Private development in form of permanent housing is a common feature.

Ngwenya (NWY) – This zone is a mixed development of traditional, permanent, institutional, light industry and customary village development. Areas 22, 23, 24 and 36 have a partly planned Traditional Housing Area (THA), which partly comprise unplanned properties and squatters. Area 36

also comprises institution, public buildings, and light industrial activity properties. Area 36 is also known for unplanned village settlements and informal plots are in general sold to private developers for housing and/or commercial business buildings. This extends to Area 38 where there is a large uncontrolled refuse dumping site for the Lilongwe City Council.

Infrastructure in the Urban Zones

The infrastructure situation in Lilongwe city is not very encouraging. Some of the areas have access to better infrastructure facilities (e.g. the central region) while others are still waiting for the better services.

Water in Lilongwe is supplied by Lilongwe Water Board and the spatial coverage of Lilongwe Water Board supply was about 72% in 2007 and 75% in 2008. The Integrated Household Survey Report (NSO, 2005:87) shows that although 95.4% of the households in Lilongwe City have access to an improved water source, most of them (79.5%) accessed water via communal stand pipes (kiosks) while only 9.6% had piped water into their homes. The remainder got water from boreholes (6.3%), or unprotected wells or rivers (4.5%).

Kiosks are owned by the Board, water users associations (WUAs), community committees, or individuals. Each kiosk is designed to serve 50 households or 250 people. There are approximately 566 kiosks exist in the city. According to the Board, there may be 460,000 people in low income areas requiring about 1840 kiosks. However, the current number of kiosks serves only about 141,500 people.

The sanitation system in Lilongwe city is not very good. As per the various sources and discussion with the Health Directorate at Lilongwe City Council about only 9% of the households are currently served by the sewerage system, while about 20% households are connected by septic tanks and the majority i.e. 71% of the households are dependent on pit latrines. Many houses built on single plots in low income areas share the use of pit latrines; a recent study found that, of the low income households studied in Lilongwe, only 14.3% had exclusive use of their own toilets, the rest having to share with one or more other households. Other studies such as Kariuki (2003) on water and sanitation services to low income areas, in 2003 found serious neglect in low income areas.

In terms of health facilities, Lilongwe city has four major hospitals: Kamuzu Central (Area 33), Bwaila (bottom Area 1), Likuni Mission (Area 57) and Daye Yong hospitals (Area 27). There are also several public and private health centres and clinics.

Below is a description of basic infrastructure in each zone:

Alimaunde (ALM) – This zone is serviced by a tarmac road up to the airport terminal and warehousing area. The other roads are either earthen or small muddy lanes. Water supply is reticulated by the Lilongwe Water Board around the airport areas, while the villages are serviced by borehole, streams and shallow wells. Most of the area is accessible to the cell phone network. In terms of sanitation, households are mainly dependent on sewerage, pit latrines and septic tanks. Apart from a partial sewerage network, safe sanitation coverage is very low.

Lumbadzi (LUM) – The area is partly serviced in the ADL housing estate with roads, water, and electricity. However the other areas, especially the unplanned settlements and villages, are largely un-serviced and are dependent on earthen roads for accessibility, fetching water from boreholes, wells, kiosk and rivers. The entire area is accessible by cell phone network. In terms of sanitation, approx. one-third of the population is served with safe sanitation (flush toilets).

Mvunguti (MVN) – Apart from the M1 road and the main distributor roads, the entire zone is serviced by earth roads. Water supply is partly accessible in the areas managed by LCC, and the institutional areas while the traditional areas are serviced by boreholes, wells and streams. Sanitation is mainly pit latrines and septic tanks. A low percentage of households has access to safe sanitation (flush toilets).

Kanengo (KAN) - In this zone, Areas 28 and 29 are fully serviced by sealed paved roads, water, sewerage and electricity. However, the other areas are either not serviced or partially serviced with earth roads or unpaved roads. Water supply is accessible in certain areas with the remainder being dependent on boreholes, wells and streams. The entire zone is fully covered by the cellular network. In terms of sanitation, except in Area-29, there is a low coverage of safe sanitation in the zone.

Mariya (MRY) – In this zone, Areas 49/1, 4, 5 are serviced by earth and gravel roads; the other areas do not have well developed road networks. Water supply is partly provided by Lilongwe Water Board but some areas are still dependent on boreholes, wells, kiosk and streams. Area-49 has access to safe sanitation and water supply but in other areas safe sanitation coverage is low. Electricity is partly provided and a cell phone network exists.

Chimutu (CMT) – In general this zone is well serviced by tarmac roads and drains but, some roads do require major rehabilitation and maintenance. Sewerage networks do exist in some areas with the remainder dependent on septic tanks. In general this area is fully covered with safe sanitation. Water reticulation is provided by LWB to the entire area. Electricity is fully reticulated and both telephone and cellular networks exist.

Nyama (NYM) – This zone has a well developed road network to bitumen standard. In addition, new road networks are under construction. Electricity supply is reticulated and is being extended to new areas. Water is reticulated by LWB and being extended to new areas. Telephone and cellular networks are both available. Sewerage and septic tanks are accessible and the entire area can be termed as safe sanitation area. However, the unplanned settlements in the east of Area 10 are dependent on pit latrines and bore wells.

Tsabango (TBN) – In this zone, roads have been developed in most areas. Water supply and electricity are fully serviced/ provided. Telephone and cellular networks are both good and a sewerage system is in place. Refuse collection disposal and is regular in this area. Despite the good infrastructure services, the unplanned settlements in this zone still don't have an access to safe basic amenities.

City Centre (CCT) –Being the major service, administrative and commercial centre in the city, this zone is comparatively better than most other zones. The water supply and electricity networks are in

place and telephone and cellular phone networks are available. The roads are paved though some parts of the network still need to be developed. Sewerage network is partly available.

Old Town (OTN) – In this zone the road network is partially developed and also requires upgrading in some areas. Drainage is partially developed. As a major commercial and business centre, the water supply system is fully reticulated and the electricity grid well developed. In terms of sanitation, sewerage and septic tanks are in use and the refuse collection system is partially developed. Telephone and cellular phone networks are available.

Chinsapo (CSP) – The infrastructure services in this zone are partially developed. The majority of the roads are earthen, and muddy. In terms of sanitation, septic tanks and pit latrines are commonly used in this zone. However, not all households have a safe access to sanitation. Electricity is not fully reticulated. Water is supplied by Lilongwe Water Board and Central Region Water Boards to parts of this zone with boreholes and wells covering other areas. Scattered dumping of waste is common and waste is irregularly collected. Telephone and cellular networks are available.

Ngwenya (NWY) – This zone is partly serviced with roads without proper drains. The Main M1 road is the main primary road to this zone and other areas are either earthen roads or narrow muddy lanes. Electricity is accessible in certain areas. Water supply has been provided in certain areas with the remainder dependent on boreholes, shallow wells and kiosks. Sanitation comprises a mixture of septic tanks and pit latrines while refuse collection is irregular and privately arranged. Telephone and cellular networks are available.

Major Issues and Suggestions for the Urban Zones

Below is the brief description of existing major issues along with major suggestions for each zone:

Alimaunde (ALM) – The large vacant available area needs to be developed in a planned manner. The existence of an airport in this zone is not utilized to its full potential and there is a need to plan for its maximum utilization. The entire area needs development and support with reliable infrastructure services. There is also a need to survey and prepare a resettlement/compensation plan and policies for indigenous village settlements. For feasible and economic development, there is an urgent need to increase density in the area.

Lumbadzi (LUM) – A large vacant area is still available and not utilized to its full potential, and there is a need formulate land use maps and policies for development. This zone is next to the airport area, but the potential advantage of the proximity to the airport is not utilized to its full potential. There is therefore a need to plan for its maximum utilization. As a large number of households are living in the villages and unplanned settlements, there is a need is to formulate compensation policies and resettlement plans for such encroached areas. For feasible and economic development, there is an urgent need to increase the density of the area in a planned manner. In the absence of any planning and polices, the entire vacant area will be haphazardly occupied by the unplanned settlements.

Mvunguti (MVN) – As this zone consist of a large number of unplanned settlements and high density traditional housing areas, a specific policy needs to be formulated for the upgrading of housing and socio economic conditions of the rapidly increasing population especially in the high density

traditional areas. Policies and plans need to be formulated for the encroachment, resettlement and outstanding compensation issues. Considering the development of an industrial area and the related activities in the area next to this zone, there is a need to plan for the type of housing that will be required in this zone.

Kanengo (KAN)- A policy with certain incentives needs to be formulated for the promotion of investment in this Industrial Area Zone. The need is to convert this region from "Storage" activities (warehouses) to "Manufacturing" activities. Strategies and policies also need to be developed to regulate the growth of unplanned settlements. The options of compensation and resettlements or improving the housing situation may be looked into in detail.

Mariya (MRY) – This zone is one of the most rapidly developing areas with a lack of layout plans. The informal and haphazard division and sub-division of plots leads to chaos. Thus there is a need to conduct a detailed survey and plan accordingly. Considering this zone's proximity to the Industrial area, the type of housing in this zone also needs to be planned as per Industrial activities and requirements. Encroachment and unplanned settlements need to be regulated or controlled. This may require extensive upgrading, compensation and resettlement schemes.

Chimutu (CMT) – This zone is a very low density area with over-sized plots. Policies to increase the population density of the area need to be promoted. Options such as permission for 2-3 storey housing, more area coverage, better Floor Area Ratio (FAR) along with other incentives may be promoted.

Nyama (NYM) – This zone is very low density area with over-size plots. Policies to increase the density in this zone need to be promoted. Options such as permission for 2-3 storey housing, and more area coverage should be promoted. The development of more institutions also needs to be promoted for further development of this zone and city.

Tsabango (TBN) – This zone consists of a large vacant and underutilized area of land, which needs to be planned and developed in an orderly manner. The need is to formulate effective policies and plan for the development of this zone. There is also a need to increase the density in a planned manner. In addition, this zone has lot of scope for the development of recreational activities.

City Centre (CCT) – This zone is under developed with a large number of plots still vacant. With an existence of natural areas, this zone has good potential to be developed as a major recreational centre in the city. To avoid being a dead space during the evening, there is also a need to develop other activities with mixed land use in the City Centre area. This will make the city centre area livelier throughout the day.

Old Town (OTN) – With a mix of many activities, this zone is facing many typical problems faced by a typical old area such as traffic circulation, parking, illegal and haphazard commercial development etc. Congestion and overcrowding is another major issue. Unfortunately, open spaces and parks are missing in the highest population density area. For better management, certain activities need to be restricted/ relocated to other zones.

Chinsapo (CSP) – With the addition of area 58, there is conflict between urban and rural land and its development. Being a critical issue, the development needs to occur in a phased manner to satisfy both communities. Land ownership and regulation are still an issue and need to be resolved for planned development to occur. With an existence of indigenous villages, the area needs to be planned inventively. The large vacant areas need to be planned effectively for further development. For feasible development, there is an urgent need for increasing population density of the area. Rapidly growing urban sprawl also needs to be regulated and planned accordingly. An effective resettlement and compensation scheme need to be formulated.

Ngwenya (NWY) – In this zone, informal land subdivision and encroachments on road reserves need to be regulated and planned accordingly. Common features such as land with no proper roads, no drains, and no layout plans for some areas resulted in scattered development. Rapid growing urban sprawl needs to be regulated and planned.

APPENDIX 3

Result of Traffic Survey and Road Inventory Survey in Lilongwe City

1. Result of Vehicle Traffic Count Survey

Vehicle traffic count survey was conducted with 10 locations on 3 continuous weekdays and one weekend during 29th July to 2nd August in 2009 by JICA Study Team.

Table AT.1 Result of Traffic Count Survey in Lilongwe City (16 Hours) (1/3)

Road	I: Motorcycle		II : Light Vehicle				III : Heavy Vehicle			Total of Motorized	Un-motorized Vehicles	
	Motorcycle	Motorbike Trailer	Saloon/Pickup /Wagon	Light Truck	Mini Bus	Bus	Medium - Heavy Truck	Heavy & Full Trailer Truck	Bicycle		Pedestrian	
1 M1 & Airport Access Weekday Road to Airport Road to Lilongwe Road to Kasungu Weekend Road to Airport Road to Lilongwe Road to Kasungu M1 & M14 Weekday Road to Lilongwe Road to Kasungu Road to Salima Weekend Road to Lilongwe Road to Kasungu Road to Salima	29	1	1,172	54	75	12	48	7	1,398	46	14	
	69	7	2,141	233	755	74	182	187	3,648	285	86	
	63	7	2,222	240	757	80	214	190	3,773	284	89	
	14	1	1,020	101	373	8	9	26	1,552	49	46	
	28	19	2,396	142	915	87	133	153	3,873	300	181	
	40	18	2,500	241	1,116	85	136	127	4,263	311	205	
	84	21	5,431	522	2,431	132	464	439	9,524	211	2,537	
	97	24	6,240	570	2,558	251	633	662	11,035	198	758	
	54	18	2,705	394	421	149	477	451	4,670	241	1,907	
	59	16	5,356	495	2,837	243	722	601	10,329	261	2,594	
3 Salima Road, City Border Weekday Weekend	119	27	7,815	703	3,455	590	1,412	1,506	15,627	342	1,014	
	80	11	3,323	470	736	355	796	1,017	6,788	361	1,696	
	22	13	710	432	218	48	268	43	1,754	615	1,154	
4 M1 & Presidential Way Weekday Road to Old town Road to Capital hill Road to Kanengo Road to Munzu Weekend Road to Old town Road to Capital hill Road to Kanengo Road to Munzu	9	14	940	310	211	60	202	22	1,768	787	2,016	
	107	4	6,517	341	1,558	150	370	153	9,199	399	1,591	
	78	8	6,002	475	1,259	164	272	125	8,382	406	985	
	112	17	6,507	465	1,381	131	450	144	9,207	361	1,219	
	75	9	6,410	391	1,018	153	206	119	8,381	395	1,338	
	30	0	5,573	94	531	25	76	46	6,375	457	661	
	75	0	8,607	213	3,346	117	388	124	12,870	343	967	
	24	0	7,449	209	981	129	162	78	9,032	480	1,251	
	43	0	6,929	286	3,058	121	462	126	11,025	234	775	

Table AT.1 Result of Traffic Count Survey in Lilongwe City (16 Hours) (2/3)

Road	I: Motorcycle		II : Light Vehicle			III : Heavy Vehicle			Total of Motorized	Un-motorized Vehicles	
	Motorcycle	Motorbike Trailer	Saloon/Pickup /Wagon	Light Truck	Mini Bus	Bus	Medium - Heavy Truck	Heavy & Full Trailer Truck		Bicycle	Pedestrian
5 M12 & Western Bypass Weekday Road to Lilongwe Road to Mchinji Kaunda road Weekend Road to Lilongwe Road to Mchinji Kaunda road	50	10	2,612	296	697	54	137	88	3,944	607	304
	57	3	3,144	292	918	62	183	106	4,765	752	409
	41	7	2,634	197	669	21	112	72	3,753	379	196
	91	11	1,686	179	526	38	87	46	2,664	333	342
	114	20	2,699	176	733	53	94	55	3,944	403	389
6 M1 & M12 Weekday Road to Old town Road to Kasungu Road to Paul Kagome Road to Mchinji Weekend Road to Old town Road to Kasungu Road to Paul Kagome Road to Mchinji	93	15	2,123	135	475	25	47	15	2,928	200	289
	69	3	6,623	212	1,597	52	191	98	8,846	806	1,684
	73	4	6,310	220	1,378	52	216	108	8,362	580	697
	53	3	4,231	186	998	35	179	101	5,786	652	957
	55	3	3,950	162	637	27	138	73	5,045	447	1,344
7 Mzimba Road & Kenyattia Road Weekday Road to Old Town Mzimba Road Road to City Center Road to Paul Kagome Weekend Road to Old Town Mzimba Road Road to City Center Road to Paul Kagome	21	0	6,788	217	2,002	50	162	78	9,318	595	1,031
	25	0	6,315	189	1,846	49	156	66	8,646	457	290
	13	0	2,123	64	777	90	60	52	3,179	447	851
	9	0	2,236	104	425	75	100	32	2,981	381	518
	201	15	7,678	366	894	150	336	181	9,820	731	919
7 Mzimba Road & Kenyattia Road Weekday Road to Old Town Mzimba Road Road to City Center Road to Paul Kagome Weekend Road to Old Town Mzimba Road Road to City Center Road to Paul Kagome	223	9	8,020	501	1,212	156	374	179	10,674	659	1,556
	279	17	9,489	456	929	243	546	279	12,238	824	532
	265	27	8,003	460	1,216	174	423	275	10,844	671	746
	52	2	7,345	309	396	144	230	64	8,542	797	2,565
	46	3	5,786	211	845	112	169	72	7,244	319	580
7 Mzimba Road & Kenyattia Road Weekday Road to Old Town Mzimba Road Road to City Center Road to Paul Kagome	54	0	5,730	209	276	81	139	43	6,532	662	1,493
	40	1	3,065	83	675	23	72	43	4,002	240	826

Table AT.1 Result of Traffic Count Survey in Lilongwe City (16 Hours) (3/3)

Road	I: Motorcycle			II: Light Vehicle				III: Heavy Vehicle			Total of Motorized	Un-motorized Vehicles	
	Motorcycle	Motorbike	Trailer	Saloon/Pickup /Wagon	Light Truck	Mini Bus	Bus	Medium - Heavy Truck	Heavy & Full Trailer Truck			Bicycle	Pedestrian
8 M1 & Likuni Road Weekday Road to Escom Road to Old Town Road to Paul Kagame Road to Likuni Weekend Road to Escom Road to Old Town Road to Paul Kagame Road to Likuni	41	7		1,272	220	145	7	23	13		1,729	110	6,444
	174	442		15,370	625	8,985	127	239	115		26,077	2,241	8,161
	129	49		8,933	423	4,975	55	173	83		14,820	1,642	6,308
	79	395		8,055	366	4,238	79	86	47		13,346	1,156	9,412
	39	185		462	116	80	9	21	37		949	53	7
	139	1		4,562	275	2,787	66	115	78		8,023	878	9
	105	0		5,206	327	2,791	46	182	65		8,722	822	3
	115	184		3,282	270	1,678	43	128	54		5,754	559	1
9 M1 & Malangalanga Road Weekday Road to Bridge Road to Blantyre Road to LL Girls Weekend Road to Bridge Road to Blantyre Road to LL Girls	164	1		5,661	1,101	2,237	85	82	128		9,459	1,862	13,732
	160	1		5,823	1,016	2,116	119	88	129		9,452	1,484	8,290
	42	0		2,948	298	219	64	14	8		3,592	569	10,006
	57	0		3,927	593	1,828	63	112	86		6,666	1,003	11,648
	53	0		4,052	548	1,853	101	123	84		6,814	833	7,664
	6	0		2,003	147	157	50	13	4		2,380	290	9,572
10 M1 & Bunda Turnoff Weekday Road to Lilongwe Road to Blantyre Road to Bunda Weekend Road to Lilongwe Road to Blantyre Road to Bunda	67	0		2,376	664	1,379	96	264	200		5,046	942	54
	65	3		1,432	465	946	99	167	99		3,277	667	0
	56	3		1,227	219	597	54	86	44		2,286	772	54
	29	0		1,031	213	605	36	140	46		2,100	155	2
	14	0		923	202	673	21	143	20		1,996	137	3
	24	0		649	179	529	20	118	19		1,538	187	4
11 Paul Kagame Weekday Paul Kagame at Total Filling Sta.	116	13		10,793	489	419	24	114	25		11,992	1,613	20

Table AT.2 Result of Traffic Count Survey in Lilongwe City (24 Hours) (1/3)

Road	I: Motorcycle		II: Light Vehicle			III: Heavy Vehicle			Total of Motorized	Un-motorized Vehicles	
	Motorcycle	Motorbike Trailer	Saloon/Pickup /Wagon	Light Truck	Mini Bus	Bus	Medium - Heavy Truck	Heavy & Full Trailer Trucks		Bicycle	Pedestrian
1 M1 & Airport Access Weekday Road to Airport Road to Lilongwe Road to Kasungu Weekend Road to Airport Road to Lilongwe Road to Kasungu	29	1	1,236	64	79	18	56	15	1,499	46	14
	69	7	2,228	242	762	81	187	198	3,775	285	86
	63	7	2,333	259	767	93	227	210	3,959	284	89
	14	1	1,024	102	60	8	9	26	1,244	49	46
2 M1 & M14 Weekday Road to Lilongwe Road to Kasungu Road to Salima Weekend Road to Lilongwe Road to Kasungu Road to Salima	28	19	2,537	156	536	97	150	154	3,677	300	181
	40	18	2,641	254	558	95	153	128	3,887	311	205
	89	23	6,167	606	2,490	181	509	538	10,603	215	2,545
	104	26	7,062	694	2,613	301	709	758	12,266	214	760
3 Salima Road, City Border Weekday Weekend M1 & Presidential Way Weekday Road to Old town Road to Capital hill Road to Kanengo Road to Munzu Weekend Road to Old town Road to Capital hill Road to Kanengo Road to Munzu	57	21	2,948	440	449	165	519	485	5,084	256	1,913
	59	17	6,182	557	2,916	278	767	636	11,412	261	2,599
	119	27	8,836	798	3,545	626	1,479	1,554	16,984	342	1,017
	80	12	3,626	509	749	366	834	1,044	7,220	361	1,698
4 Road to Lilongwe Road to Kasungu Road to Salima Weekday Weekend M1 & Presidential Way Weekday Road to Old town Road to Capital hill Road to Kanengo Road to Munzu Weekend Road to Old town Road to Capital hill Road to Kanengo Road to Munzu	24	14	774	471	237	52	292	46	1,910	653	1,158
	10	15	1,000	330	225	64	215	23	1,881	787	2,016
	107	4	7,531	369	1,588	169	405	177	10,351	399	1,591
	78	8	6,590	517	1,288	176	286	132	9,074	407	985
5 Road to Lilongwe Road to Kasungu Road to Salima Weekday Weekend M1 & Presidential Way Weekday Road to Old town Road to Capital hill Road to Kanengo Road to Munzu Weekend Road to Old town Road to Capital hill Road to Kanengo Road to Munzu	113	17	7,488	519	1,421	147	486	176	10,367	362	1,219
	76	9	7,171	421	1,040	165	232	135	9,250	395	1,338
	30	0	6,418	127	543	33	86	53	7,290	457	661
	75	0	9,415	257	3,376	130	402	136	13,791	343	967
6 Road to Lilongwe Road to Kasungu Road to Salima Weekday Weekend M1 & Presidential Way Weekday Road to Old town Road to Capital hill Road to Kanengo Road to Munzu Weekend Road to Old town Road to Capital hill Road to Kanengo Road to Munzu	24	0	8,175	238	992	135	167	83	9,814	480	1,251
	43	0	7,734	334	3,085	134	477	140	11,947	234	775

Note: The traffic volumes of 16 hour survey points are magnified to 24hours based on those of 24hour survey points.

Table AT.2 Result of Traffic Count Survey in Lilongwe City (24 Hours) (2/3)

Road	I: Motorcycle		II : Light Vehicle			III : Heavy Vehicle			Total of Motorized	Un-motorized Vehicles	
	Motorcycle	Motorbike Trailer	Saloon/Pickup /Wagon	Light Truck	Mini Bus	Bus	Medium - Heavy Truck	Heavy & Full Trailer Truck		Bicycle	Pedestrian
5 M12 & Western Bypass Weekday Road to Lilongwe Road to Mchinji Kaunda road Weekend Road to Lilongwe Road to Mchinji Kaunda road	54	11	2,794	317	746	57	146	95	4,220	607	304
	61	4	3,364	312	982	67	196	114	5,099	752	409
	44	7	2,818	210	716	22	120	77	4,016	379	196
	105	13	1,939	206	605	44	100	53	3,064	333	342
	131	23	3,104	202	843	61	108	63	4,536	403	389
6 M1 & M12 Weekday Road to Old town Road to Kasungu Road to Paul Kagame Road to Mchinji Weekend Road to Old town Road to Kasungu Road to Paul Kagame Road to Mchinji	107	17	2,441	155	546	29	54	17	3,367	200	289
	74	4	7,087	226	1,709	56	204	105	9,465	806	1,684
	78	4	6,752	235	1,475	56	231	116	8,947	580	697
	57	3	4,527	199	1,068	37	192	108	6,191	652	957
	59	3	4,227	174	681	29	148	78	5,398	447	1,344
7 Mzimba Road & Kenyatta Road Weekday Road to Old Town Mzimba Road Road to City Center Road to Paul Kagame Weekend Road to Old Town Mzimba Road Road to City Center Road to Paul Kagame	24	0	7,806	250	2,302	58	186	90	10,716	595	1,031
	29	0	7,262	217	2,123	56	179	76	9,943	457	290
	15	0	2,441	74	894	104	69	60	3,656	447	851
	10	0	2,571	120	489	86	115	37	3,428	381	518
	215	16	8,216	391	957	160	360	193	10,508	731	919
7 Mzimba Road & Kenyatta Road Weekday Road to Old Town Mzimba Road Road to City Center Road to Paul Kagame Weekend Road to Old Town Mzimba Road Road to City Center Road to Paul Kagame	238	10	8,581	536	1,297	167	400	191	11,421	659	1,556
	298	19	10,153	488	994	260	584	299	13,095	824	532
	284	29	8,563	493	1,301	186	453	294	11,603	671	746
	53	3	7,346	310	397	145	231	65	8,551	797	2,565
	47	4	5,787	212	846	113	170	73	7,253	319	580
7 Mzimba Road & Kenyatta Road Weekday Road to Old Town Mzimba Road Road to City Center Road to Paul Kagame	55	1	5,731	210	277	82	140	44	6,541	662	1,493
	41	2	3,066	84	676	24	73	44	4,011	240	826

Note: The traffic volumes of 16 hour survey points are magnified to 24hours based on those of 24hour survey points.

Table AT.2 Result of Traffic Count Survey in Lilongwe City (24 Hours) (3/3)

Road	I: Motorcycle		II : Light Vehicle			III : Heavy Vehicle			Total of Motorized	Un-motorized Vehicles	
	Motorcycle	Motorbike Trailer	Saloon/Pickup /Wagon	Light Truck	Mini Bus	Bus	Medium - Heavy Truck	Heavy & Full Trailer Truck		Bicycle	Pedestrian
8 M1 & Likuni Road Weekday Road to Escom Road to Old Town Road to Paul Kagame Road to Likuni Weekend Road to Escom Road to Old Town Road to Paul Kagame Road to Likuni	44	8	1,892	260	182	27	52	30	2,495	110	6,444
	174	446	16,153	668	9,029	141	266	133	27,010	2,242	8,161
	133	53	9,560	453	5,001	63	192	89	15,545	1,642	6,308
	80	396	8,845	409	4,289	89	113	58	14,280	1,157	9,412
	40	185	975	156	137	28	50	51	1,622	53	7
	139	66	5,120	329	2,852	85	138	92	8,821	878	9
	106	65	5,908	364	2,822	50	198	77	9,590	822	3
	115	184	4,025	319	1,721	47	138	66	6,615	559	1
9 M1 & Malangalanga Road Weekday Road to Bridge Road to Blantyre Road to LL Girls Weekend Road to Bridge Road to Blantyre Road to LL Girls	175	1	6,058	1,178	2,394	91	88	137	10,121	1,862	13,732
	171	1	6,231	1,087	2,264	128	95	138	10,114	1,484	8,290
	45	0	3,154	319	234	69	15	9	3,844	569	10,006
	66	0	4,516	682	2,102	72	129	99	7,666	1,003	11,648
	61	0	4,660	630	2,131	116	141	97	7,836	833	7,664
	7	0	2,303	169	181	58	15	5	2,737	290	9,572
	67	0	2,580	698	1,397	118	321	218	5,399	943	54
	65	5	1,517	481	955	104	189	106	3,422	670	0
10 Road to Bunda Weekend Road to Lilongwe Road to Blantyre Road to Bunda	56	5	1,282	226	599	56	89	46	2,358	775	54
	29	0	1,239	257	630	59	194	58	2,466	157	2
	14	6	1,002	225	691	29	165	23	2,155	140	3
	24	6	712	188	533	23	123	19	1,628	190	4
11 Paul Kagame Weekday Paul Kagame at Total Filling Sta.	124	14	11,548	523	449	26	122	26	12,831	1,613	20

Note: The traffic volumes of 16 hour survey points are magnified to 24hours based on those of 24hour survey points.

2. Result of Vehicle Origin & Destination (OD) Survey

Vehicle OD survey was conducted with 5 locations on 3 continues weekdays and one weekend during 29th July to 2nd August in 2009 by JICA Study Team. The total number of samples was 1,585 during the survey period.

Table AT.3 Result of Vehicle Origin & Destination (OD) Survey in Lilongwe City (24 Hours)

	Old Twon	Chimutu	City Center	Nyama	Ngwenya	Kanengo	Mvunguti	Tsabango	Chinsapo	Mariya	Alimaunde	Lumbadzi	Via Salima road	Via North MI	Via M12	Via Bund turn off	Total
Old Town	8,664	5,111	911	873	573	157	1,900	0	207	562	190	819	9,864	1,355	2,858	7,182	41,226
Chimutu	5,373	0	156	0	207	0	52	0	0	0	0	0	208	0	118	104	6,219
City Center	979	59	0	0	104	0	0	0	0	0	29	102	291	0	0	0	1,564
Nyama	1,145	104	0	0	0	52	52	0	0	0	0	0	52	0	0	0	1,406
Ngwenya	1,467	0	0	104	104	0	311	0	0	104	0	52	156	0	0	0	2,298
Kanengo	157	0	0	0	0	52	105	0	0	0	0	0	0	0	0	0	314
Mvunguti	2,459	209	0	262	105	52	52	0	0	0	0	0	52	0	0	59	3,251
Tsabango	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chinsapo	475	59	0	0	0	0	0	0	0	0	0	0	104	0	59	0	697
Mariya	469	0	0	118	104	0	52	0	0	0	0	52	0	0	0	0	796
Alimaunde	234	0	0	0	0	0	0	0	0	0	0	0	0	15	0	146	394
Lumbadzi	234	0	0	0	0	0	0	0	0	0	0	0	0	15	0	146	394
Via Salima road	6,574	425	52	105	528	0	157	0	52	0	44	29	438	22	59	607	9,094
Via North M1	3,264	52	0	0	0	0	0	0	0	0	29	0	252	0	0	808	4,406
Via M12	3,569	0	295	118	59	0	0	0	0	0	0	0	0	0	0	577	4,619
Via Bund turn off	4,190	156	0	104	0	0	156	0	0	0	0	52	637	304	415	37	6,051
Total	39,253	6,176	1,415	1,683	1,783	314	2,838	0	260	666	293	1,107	12,054	1,710	3,509	9,666	82,728

Source: Result of roadside interview survey by JICA Study team in August, 2009

2. Result of Minibus Passenger Survey

Minibus passenger survey was conducted with 11 routes on 3 continues weekdays and one weekend during 29th July to 3rd August in 2009 by JICA Study Team.

Table AT.4 Result of Minibus Passenger Count Survey

Minibus Route	Destination	No. of Passenger on Weekday			No. of Passenger on Weekday		
		From Old Town	To Old Town	Total	From Old Town	To Old Town	Total
1	Area 23	25,953	17,368	43,321	33,695	27,392	61,087
2	Area 25	18,142	18,751	36,893	15,955	12,234	28,189
3	Area 49	10,766	22,537	33,303	9,622	5,600	15,222
4	Area 36	6,945	7,159	14,104	6,962	7,176	14,138
5	Area 24	6,812	6,706	13,518	4,623	4,299	8,922
6	Kauma/Area 12	3,077	4,590	7,666	2,634	2,366	5,000
7	Likuni	11,199	15,919	27,118	11,345	15,567	26,912
8	Mitundu	4,534	6,808	11,342	975	1,077	2,052
9	Area 18B	15,584	15,575	31,159	18,390	18,379	36,769
10	Limbadzi	2,154	3,082	5,236	1,876	2,740	4,616
11	Mpingu	2,474	2,274	4,748	196	588	784
Total	-	107,640	120,769	228,409	106,273	97,418	203,692

3. Road Inventory Survey

Road inventory survey was carried out for main and secondary roads in August, 2009 by JICA Study Team.

(1) Form for Road Inventory

JICA uses the road inventory form by Roads Authority.

(2) Coding System for Road Inventory Survey by JICA

Road Classification (proposed)

1. Major road
2. Secondary road
3. Urban road
4. Community road

Data base for urban roads and community roads were already obtained from Roads Authority. However the road data base by Roads Authority has no enough data for main and secondary roads. For that reason, JICA Study Team conducted additional road inventory survey for major roads, secondary roads and some urban roads.

The additional survey and further coordination with Roads Authority is needed for making usable road data base for Lilongwe City.

Coding System Proposed by JICA Study Team

Link No.: Name of National roads such as M001, M012, M014 etc. for major roads, S260, S263
 for secondary roads

 U001, U002 for urban roads

Sub Link No.: Same as those of Road Authority, starting 1 for each link and continuing 2, 3 etc.

Table AT.4 Summary Table of Road Condition Survey (part of table, as a sample)

Link_No	Sublink No	Sublink Length (m)	Width (m)	Shoulder Width (m)	Surface_Type	Base_Type	Shoulder_Type	Lanes	Central_Divider	Gradient	Curvature	Road Reserve (m)		Roadside Drain	
												Left	Right	Left_Drain	Right_Drain
M001	1	133	6.7	1.5	Asphalt	Crushed Rock	Unsealed	2		Flat	Straight	16.2	10.0	TRUE	TRUE
Bunda junction	2	1467	6.7	1.5	Asphalt	Crushed Rock	Unsealed	2		Flat	Straight	25.5	14.5	TRUE	TRUE
M001	3	2300	6.7	1.5	Asphalt		Unsealed	2		Flat	Straight	14.0	21.0	TRUE	TRUE
M001	4	2250	6.7	1.5	Asphalt		Unsealed	2		Flat	Straight	12.0	23.0	TRUE	TRUE
M001	5	450	6.7	1.5	Asphalt		Unsealed & sealed	2		Flat	Straight	24.7	25.0	TRUE	TRUE
M001	6	1550	6.7	1.5	Asphalt		Unsealed & sealed	2		Flat	Straight	25.0	18.6	TRUE	TRUE
M001	7	200	6.7	1.5	Asphalt		Unsealed	2		Flat	Bendy	9.4	9.7	TRUE	TRUE
M001	8	650	6.7	1.5	Asphalt		Unsealed & sealed	2		Flat	Straight	25.0	25.0	TRUE	TRUE
M001	9	350	6.7	1.5	Asphalt		Sealed	2		Flat	Straight	7.0	10.4	TRUE	TRUE
M001	10	1150	6.7	1.5	Asphalt		Sealed	2		Flat	Straight	5.0	9.0	TRUE	TRUE
M001	11	2400	6.7	1.5	Asphalt		Sealed	2		Flat	Straight	10.5	3.5	TRUE	TRUE
M001	12	3600	6.7	1.5	Asphalt		Sealed	2		Flat	Straight	17.0	25.0	TRUE	TRUE
M001	13	6600	6.7	1.5	Chip Seal		Sealed	2				10.7	22.0	TRUE	TRUE
M001	14	11350	6.7	1.5	Chip Seal		Sealed	2				25.0	25.0	TRUE	TRUE
M001	15	5250	6.7	1.5	Chip Seal		Sealed	2				8.5	18.0	TRUE	TRUE
M012	1	5000	6.7	1.5	Chip Seal		Sealed	2				25.0	19.8	TRUE	TRUE
M012	2	1400	6.7	1.5	Chip Seal		Sealed	2				17.3	18.2	TRUE	TRUE
M012	3	1500	6.7	1.5	Chip Seal		Sealed	2				14.2	12.7	TRUE	TRUE
M012	4	5600	6.7	1.5	Chip Seal		Sealed	2				7.5	12.0	TRUE	TRUE
M014	1	1300	6.7	1.5	Chip Seal		Sealed	2				12.6	10.0	TRUE	TRUE
M014	2	2400	6.7	1.5	Chip Seal		Sealed	2				15.3	25.0	TRUE	TRUE
M014	3	1600	6.7	1.5	Chip Seal		Sealed	2				13.4	15.6	TRUE	TRUE
M014	4	1200	6.7	1.5	Chip Seal		Sealed	2				9.7	25.0	TRUE	TRUE
S225	1	1400	6.7	1.0	Slurry Seal		Unsealed	2				10.7	9.0	TRUE	TRUE
S225	2	2700	6.7	1.0	Slurry Seal		Unsealed	2				11.0	10.0	TRUE	TRUE
S260	1	3700	6.7	1.5	Slurry Seal		Sealed	2				25.0	25.0	TRUE	TRUE
S260	2	3000	6.7	1.5	Slurry Seal		Sealed	2				25.0	25.0	TRUE	TRUE
S260	3	2200	6.7	1.5	Slurry Seal		Sealed	2				25.0	16.0	TRUE	TRUE
S260	4	2700	6.7	1.5	Slurry Seal		Sealed	2				14.7	25.0	TRUE	TRUE
S260	5	1900	6.7	1.5	Slurry Seal		Sealed	2				25.0	25.0	TRUE	TRUE
S261	1	1500	6.7	1.5	Slurry Seal		Sealed	2				11.0	10.0	TRUE	TRUE
S261	2	2200	6.7	1.5	Slurry Seal		Sealed	2		Flat		6.0	10.0	TRUE	TRUE
S261	3	2300	6.7	1.5	Slurry Seal		Sealed	2		Flat		25.0	7.0	TRUE	TRUE
S261	4	900	6.7	1.5	Slurry Seal		Sealed	2		Flat	Bendy	5.0	5.0	TRUE	TRUE
S261	5	1350	6.7	1.5	Slurry Seal		Sealed	2		Flat	Straight	2.5	6.7	TRUE	TRUE
S261	6	850	6.7	1.5	Slurry Seal		Sealed	2		Flat	Bendy	3.0	3.0	TRUE	TRUE

APPENDIX 4

Project Sheet

Urban Development Programs

1. Public Administration Enhancement Program for Urban Management

Sub-Program	Project	Implementation Schedule				Resp. Organization		Dev. Cost	
		-2015	-2020	-2030	Implem-entation	Ope./mainte.	MKW billion	US\$ million	
1-1. Institutionalization of Urban Development MP Sub-Program	1-1 (1) Legalization of 2030 land use plan				LCC/MoLHUD	-	0.004	0.03	
	1-1 (2) Review of master plan		review	review	LCC	-	0.029	0.20	
1-2. Capacity Development Sub-Program for Effective Urban Management	1-2 (1) Urban Plan and Development Management				MoLGRD/LCC	-	0.401	2.80	
	1-2 (2) Improvement of land registration management				LCC/MoLHUD	-	0.009	0.06	
	1-2 (3) Enhancement of LCC administration (New public administration, streamlining of LCC staff and HRD)				LCC	-	0.009	0.06	
	1-2 (4) Institutional strengthening for priority project implementation				LCC	-	0.014	0.10	
Total								0.47	3.3

2. Urban Living Environment Improvement Program

Sub-Program	Project	Implementation Schedule				Resp. Organization		Dev. Cost	
		-2015	-2020	-2030	Implem-entation	Ope./mainte.	MKW billion	US\$ million	
2-1. Living Environment Improvement Sub-Program in THA/Unplanned Settlement	2-1 (1) Strengthening of land registration system: property records, land survey, etc				LCC	-	0.014	0.10	
	2-1 (2) Fund creation for community social infrastructure development				LCC	NGO	0.007	0.05	
	2-1 (3) Improvement of social service by strengthening of CBO				LCC	CBO	0.007	0.05	
	2-1 (4) Transportation development/improvement; Community road improvement in THA/unplanned settlement				MoLHUD/LCC	MoLHUD/LCC	3.468	24.20	
	2-1 (5) Urban utility development, rehabilitation, expansion; water kiosk development, provision of safe latrine, composting & cleaning education in THA/unplanned settlement				MoIWD/LWB/LCC	NGO	6.492	45.30	
2-2. Urban Transportation and Urban Utility Services Upgrading Sub-Program in Planned Settlement	Urban transportation development/improvement								
	2-2 (1) Urban road development & maintenance and inventory database				LCC/RA	LCC/RA	12.210	85.20	
	2-2 (2) Public transportation improvement (Expansion of Minibus Depot in Old Town, Review of Minibus Operation and Routes)				LCC	LCC/MOAM	0.115	0.80	
	2-2 (3) Traffic control management establishment (Development of Safety Traffic Master Plan, Development of Safe Pedestrian Network, Development of Cycle Road Network)				LCC/NRSCM	LCC	2.293	16.00	
	Urban utility development, rehabilitation, expansion								
	2-2 (4) Water supply system development/ improvement (Service extension and development, NRW reduction program)				LWB/CBO	LWB/CBO	4.342	30.30	
	2-2 (5) Sanitation system improvement (Preparation of sewerage and sanitation master plan, Sanitation promotion campaign, Study on on-site sanitation (OSS) management)				MoIWD/LCC	-	2.185	15.25	
	2-2 (6) Solid waste disposal system improvement (Procurement of equipment for waste collection, transportation, dumping, pilot project for composting and community activity for cleaning)				LCC	LCC	5.059	35.30	
Total								36.19	252.6

Note: MoLHUD(Ministry of Land, Housing and Urban Development, MoIWD (Ministry of Irrigation and Water Development), NRSCM(National Road Safety Council of Malawi), CBO(Community based Organization),MOAM(Minibus Owners Association of Malawi)

3. Economic Infrastructure Enhancement Program for Economic Growth

Sub-Program	Project	Implementation Schedule				Resp. Organization		Dev. Cost	
		-2015	-2020	-2030	Implem-entation	Ope./mainte.	MKW billion	US\$ million	
3-1. Urban Transportation Capacity Strengthening Sub-Program	Urban transportation development/improvement								
	3-1 (1) Major road development & maintenance (M1, Ring, Radial)				RA	RA	18.258	127.40	
	3-1 (2) Traffic control management establishment (Improvement of Intersections, Improvement of Car Parking System)				RA/LCC	RA/LCC	0.688	4.80	
	3-1 (3) Other transportation improvement (Modernization of Airport Navigation System, Improvement of Airport Baggage Handling System)				MoTPI	ADL	1.003	7.00	
3-2. Urban Utility Improvement Sub-Program	Urban utility development, rehabilitation, and expansion								
	3-2 (1) Water supply system development/ improvement (Development of Diamphwe Dam as new source, Development of new water treatment plant)				MoIWD/LWB	LWB	3.153	22.00	
	3-2 (2) Sanitation system improvement (Rehabilitation of Lumbadzi STP)				LCC		0.036	0.25	
Total								23.14	161.5

Note: MoTPI (Ministry of Transportation, Public Infrastructure), MoIWD (Ministry of Irrigation and Water Development), ADL(The Airport Development Limited), NRSCM(National Road Safety Council of Malawi)

4. Urban Environment Enhancement Program for Creation of Attractive Capital City

Sub-Program	Project	Implementation Schedule				Resp. Organization		Dev. Cost	
		-2015	-2020	-2030	Implem-entation	Ope./mainte.	MKW billion	US\$ million	
4-1. Park and Green Development Sub-Program	4-1 (1) Park construction (1 area park, 6 neighborhood park, 1 children park)				LCC	LCC	0.006	0.04	
4-2. Natural Greenery Preservation Sub-Program	4-2 (1) Afforestation of 1,520ha barren land in area 45 and 54 (Lumbadzi)				LCC	LCC	0.100	0.70	
	4-2 (2) River side trees rehabilitation				LCC	LCC	0.004	0.03	
Total								0.11	0.77
Grand Total							59.9	418	

Program	Public Administration Enhancement Program for Urban Management		Sub-Program	Institutionalization of Urban Development MP Sub-Program		
Name of Project	Legalization of 2030 Land Use Plan		Program Code No	1-1 (1)	ID No	CD1
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
Implementation	0.03	LCC	-	People in Lilongwe City		6 months
Project Description						
Main Objectives	To legalize the 2030 land use plan formulated by the Lilongwe Urban Development MP					
Sub-Projects/ Scope of Works	(i) Preparation of a legal document on the 2030 land use plan			Investment schedule (Mil. US\$)		
	(ii) Authorization of the “2010 Outline Zoning Scheme” by the Planning Committee					
	(iii) Approval of (ii) by the Minister responsible for town and country planning			Short		0.03
				Middle		-
			Long		-	
Remarks	Rationales		Status		Others	
	The zoning scheme of the capital city is legally authorized under TCPA.		The project is acknowledged by the concerned parties.		LCC experienced legalization of the 1986 Outline Zoning Scheme.	
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	E		E		A(from MoLHUD)	
Environmental Key Issues	Anticipated impacts: No impacts. EIA required: No					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	<p>Project descriptions:</p> <ul style="list-style-type: none">Review of the 2030 land use plan formulated in the Lilongwe Urban Development MPPreparation of a document for the 2010 Outline Zoning Scheme, containing i) background, ii) socio-economic conditions of Lilongwe City in 2010, 2020 and 2030, iii) legal status and iv) explanation of new zoning scheme, v) infrastructural development, and vi) timeframe of new zoning.Review and authorization of a document concerning the 2010 Outline Zoning Scheme by the Planning Committee.Final approval of the 2010 Outline Zoning Scheme by the minister of the Ministry of Land, Housing and Urban Development. <p>Project implementation:</p> <ol style="list-style-type: none">The Steering Committee formed under the Lilongwe Urban Development MP would appoint staff members to conduct the above scope of works.LCC should appropriate budget for legalization of 2030 land use plan.The director (Commissioner) of Physical Planning Department under MoLHUD shall be requested to take a lead in preparation of the 2010 outline zoning scheme.The project is requested to be implemented immediately after termination of the Lilongwe Urban Development MP.					

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Public Administration Enhancement Program for Urban Management		Sub-Program	Institutionalization of Urban Development MP Sub-Program		
Name of Project	Review of Mater Plan		Program Code No	1-1 (2)	ID No	CD2
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
Study	0.2	LCC	-	People in Lilongwe City		3 months
Project Description						
Main Objectives	To update the Lilongwe MP in the middle and long-term time frame					
Sub-Projects/ Scope of Works	(iv) Socio-economic and land use survey of the City			Investment schedule (Mil. US\$)		
	(v) Updating of the 2030 land use plan and infrastructural plan (transportation and utility) formulated in the 2010 MP					
	(vi) Recommendation for legal arrangement for the adjusted 2030 land use plan if necessary					
Remarks	Rationales		Status		Others	
	The City's development plan in time frame is consistent with the MGDS implemented under a mid-term frame.		Periodical review of MP is legally required by the TCPA.		The lesson that the 1986 Zoning Scheme was not reviewed, should be borne in mind.	
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	B		A		A (from MolHUD)	
Environmental Key Issues	Anticipated impacts: No impacts. EIA required: No					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	<p>Project descriptions:</p> <ul style="list-style-type: none">Review of the Lilongwe Urban Development MP (2010).Coordination with relevant stakeholders with respect to adjustment of the long-term land use plan and urban transportation/utility plan and projects formulated in the 2010 MP.Review of investment plan based on the MP adjusted.Recommendation for legal arrangement for the adjusted 2030 land use plan if necessary. <p>Project implementation:</p> <ul style="list-style-type: none">e) Both LCC and MolHUD should coordinate to make clear scope of works for the project.f) LCC should appropriate budget or seek donors' fund for implementation of the project.g) The project will be carried out in 2016 and 2021 in the same way the MGDS is reviewed in a mid-term frame.h) Strengthening of socio-economic survey and database management is indispensable for the project. If necessary, LCC may seek for donors who take interest in the captioned subject in parallel with the project.					

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Public Administration Enhancement Program for Urban Management		Sub-Program	Capacity Development Sub-Program for Effective Urban Management	
Name of Project	Urban Plan and Development Management		Program Code No	1-2 (1)	ID No CD3
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries	Expected Time Required
Technical Cooperation	2.8	MoLGRD/LCC MoLHUD	-	People in Lilongwe city	3 years
Project Description					
Main Objectives	To attain good governance of urban plan and development management				
Sub-Projects Scope of Works	(vii) Institutional arrangement for planning coordination and implementation			Investment schedule (Mil. US\$)	
	(viii) Improvement of planning standards and building regulation			Short	2.8
	(ix) Improvement of enhancement system for development and building control			Middle	-
				Long	-
Remarks	Rationales	Status		Others	
	The project is consistent with the MGDS in the area of governance.	The project will be proposed as a candidate for technical cooperation project of JICA.		The project contributes to capacity development of LCC and other stakeholders.	
External Supports	Technical Assistance*		Financial Assistance*		Other supports
	A		A		Cooperation from MoLHUD
Environmental Key Issues	Anticipated impacts: No impacts. EIA required: No				
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project descriptions: <ul style="list-style-type: none">Efficient planning coordination and implementation process for plot allocation and subdivision plans.The new planning standards and guidelines, and the new building regulations based on the 2010 Outline Zoning Scheme.Enforcement system of land use/building control, and a manual for land use control.Implementation system of land use and building control, and capacity development of staff members of LCC				
	Project implementation: <ul style="list-style-type: none">i) The project should implement immediately after legalization of the 2030 land use plan. Implementation schedule is assumed to be from April 2011 to March 2014.j) The Planning and Development Department, LCC is the prime target for capacity building of their staff members in the realm of urban plan and development management while MoLGRD supervises the project's output and outcome.k) The Commissioner for Physical Planning (the Director of Physical Planning Dep under MoLHUD) is responsible for coordination with LCC in the course of the project.l) The project would need inputs (technical experts) from a recipient country.				

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Public Administration Enhancement Program for Urban Management		Sub-Program	Capacity Development Sub-Program for Effective Urban Management		
Name of Project	Improvement of Land Registration Management		Program Code No	1-2 (2)	ID No	CD4
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
LCC own project	0.06	LCC/MoLHUD	-	People in Lilongwe city		10 years
Project Description						
Main Objectives	Legal arrangement for land registration in quasi-residential and high density residential areas					
Sub-Projects Scope of Works	(i) Enactment of housing bill			Investment schedule (Mil. US\$)		
	(ii) Establishment of land registration in quasi and high residential area					
	(iii) Registration of customary tenure			Short		0.03
	(iv) Enactment of condominium bill			Middle		0.03
Remarks	Rationales		Status		Others	
	Upgrading of unplanned settlement towards statutory housing area is consistent with the goal of MMDGs.		Necessity of the project should be recognized among the concerned agencies such as LCC and MoLHUD/MoLGRD.		Lusaka City in Zambia would become a good model of the project.	
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	E		E		Training of LCC staff members in Lusaka City	
Environmental Key Issues	Anticipated impacts: No impacts. EIA required: No					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	<p>Project descriptions:</p> <ul style="list-style-type: none">LCC will become the management body of unplanned settlement through enactment of the housing bill.Quasi-residential (unplanned) shall be divided into “improvement area” and “outside improvement area”. LCC shall establish the different land registration system in both areas in order to upgrade residential status.Customary tenure in public land, currently permitted under the Land Act, shall be converted into a certificate of title to be registered at the Department of Lands.Condominium bill would regulate high rise building standards in high residential area. <p>Project implementation:</p> <ul style="list-style-type: none">m) LCC is requested to appropriate its budget for implementation of the project.n) It would almost take 10 years to implement the project since the project includes enactment of the relevant laws. Accordingly the project should be executed as the multi-year budget plan.o) Implementation of the project is subject to enhancement of LCC administration.					

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Public Administration Enhancement Program for Urban Management		Sub-Program	Capacity Development Sub-Program for Effective Urban Management	
Name of Project	Enhancement of LCC Administration (New public administration, streamlining of LCC staff and HRD)		Program Code No	1-2 (3)	ID No CD5
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries	Expected Time Required
Implementation	0.06	LCC	-	LCC	10 years
Project Description					
Main Objectives	Institutional Strengthening of LCC including human resource development				
Sub-Projects/ Scope of Works	(v) Organizational development of LCC's Secretariat			Investment schedule (Mil. US\$)	
	(vi) Employment of junior and middle staff members				
	(vii) Streamlining LCC's staff members, particularly a great number of supporting staff members			Short 0.03	
	(viii) Training of core staff members (Human Resource Development)			Middle 0.03	
Remarks	Rationales		Status		Others
	Strengthening of LCC is consistent with the GoM's decentralization policy.		First of all, MoLGRD should recognize the importance of the project and then urges LCC to implement the project.		The project is the basic requirement for capacity development sub-program.
External Supports	Technical Assistance*		Financial Assistance*		Other supports
	E C(HRD)		E C(HRD)		Exchange of staff members between LCC and other stakeholders
Environmental Key Issues	Anticipated impacts: No impacts. EIA required: No				
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	<div><div><div>Elected Lilongwe City Council</div><div>↑</div><div>CEO</div><div><div>Administration Affairs</div><div>Finance</div><div>Engineering</div><div>Economic Development</div><div>Health</div><div>Social Service</div><div>Environment</div><div>Commerce</div><div>Planning and Development</div><div>Education</div></div></div><div><div>1. Fire and Rescue</div><div>2. Secretariat for Councilors</div><div>3. Personnel Control</div><div>4. Internal Audit</div><div>5. Secretariat for CEO</div></div></div> <div>Source: JICA Study Team Project implementation: New structure of LCC is explained in the chapter 10 (Main Report) in detail.</div> <div>p) CEO should take a lead in implementation of the project.</div> <div>q) LCC should consult MoLGRD about its organizational development, incentives given to applicants in order to recruit fresh human resource from outside.</div> <div>r) LCC would seek for external fund for execution of human resource development.</div>				

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Public Administration Enhancement Program for Urban Management		Sub-Program	Capacity Development Sub-Program for Effective Urban Management		
Name of Project	Institutional Strengthening for Priority Projects Implementation		Program Code No	1-2 (4)	ID No	CD6
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
Implementation/	0.1	LCC	-	LCC		2 years
Project Description						
Main Objectives	Strengthening of LCC in road development/maintenance, sewerage and solid waste management					
Sub-Projects/ Scope of Works	(ix) Empowerment of the Engineering Department for road development plan, construction and O&M and rehabilitation			Investment schedule (Mil. US\$)		
	(x) Empowerment of the Engineering Department for implementation of sanitation priority projects			Short		0.1
	(xi) Empowerment of the Health and Community Services Department for implementation of SWM priority projects			Middle		-
	(xii) Empowerment of the Parks, Recreation and Environment for the relevant projects.			Long		-
Remarks	Rationales		Status		Others	
	Strengthening of LCC for implementation of its projects is consistent with the decentralization policy.		The significance of the project is not recognized by LCC yet.		Roads Authority (RA) is requested to cooperate with LCC.	
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	A(road projects from RA, Sanitation, and SWM projects and park development projects from in-house consultants		E(road projects) A (donors financing mobilization of in-house consultants)		Sewerage was already transferred to Blantyre Water Board. LCC needs assistance from Blantyre City Assembly.	
Environmental Key Issues	Anticipated impacts: No impacts. EIA required: No					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	<p>Project descriptions:</p> <ul style="list-style-type: none">LCC should upgrade its expertise in road maintenance and rehabilitation through the road inventory database projects. LCC is expected to gradually empower planning, design and project management for urban arterial roads through joint operation with RA.In-house consultants are expected to propose appropriate budget, O&M system, proper number staff members for sanitation and solid waste management. This would be the pre-condition for other priority projects in sanitation and SWM priority projects.LCC should clarify the necessary conditions for transfer of sewerage works to LWB based on the Blantyre City Assembly (BCA)'s case. <p>Project implementation:</p> <ul style="list-style-type: none">s) LCC should seek for donors' fund for mobilization of in-house consultants.t) LCC should coordinate with RA in the course of priority projects' implementation.u) The project is scheduled to be implemented in 2011 and 2012, and subject to Enhancement of LCC Administration.					

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Urban Living Environment Improvement Program		Sub-Program	Living Environment Improvement Sub-Program in THA/Unplanned Settlement		
Name of Project	Strengthening of Land Registration System: Property Records, Land Survey, etc		Program Code No	2-1 (1)	ID No	CD7
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
Implementation/ TA	0.1	LCC	-	LCC		20 years
Project Description						
Main Objectives	To equip basic tools for land registration in THA/unplanned settlement					
Sub-Projects/ Scope of Works	(xv)	Preparation of topographic map and cadastral mapping and GIS data			Investment schedule (Mil. US\$)	
	(xvi)	Land recording holding system			Short	0.04
	(xvii)	Purchase of vehicles for land survey			Middle	0.03
	(xviii)	Computerization of subdivision and plot allocation plan			Long	0.03
	(xix)	Information management system from (i) to (iv)				
Remarks	Rationales		Status		Others	
	The project is consistent with poverty alleviation policy of MMDGs.		The necessity of the project is recognized by LCC, but subject to its budget.			
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	C (computer system for mapping and land records holding)		B (vehicle and computer system)			
Environmental Key Issues	Anticipated impacts: No impacts. EIA required: No					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	<p>Project descriptions:</p> <ul style="list-style-type: none">The Planning and Development Department, LCC shall be strengthened to equip it with basic tools for development and building control. In this sense, the project is closely related to the Urban Plan and Development Management Project.Land recording system in unplanned settlement (quasi-residential area) shall be established.The project could contribute to redevelopment of unplanned settlement through land adjustment method. <p>Project implementation:</p> <ul style="list-style-type: none">v) LCC should seek for sustainable financial assistance from donors, particularly establishment of information management systemw) The project is subject to Enhancement of LCC Administration.x) The project is scheduled to be executed for almost 20 years so that LCC should appropriate sustainable budget for the project.					

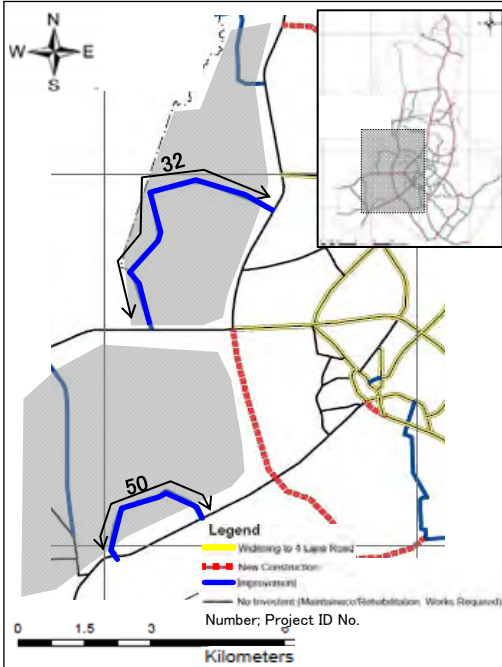
Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

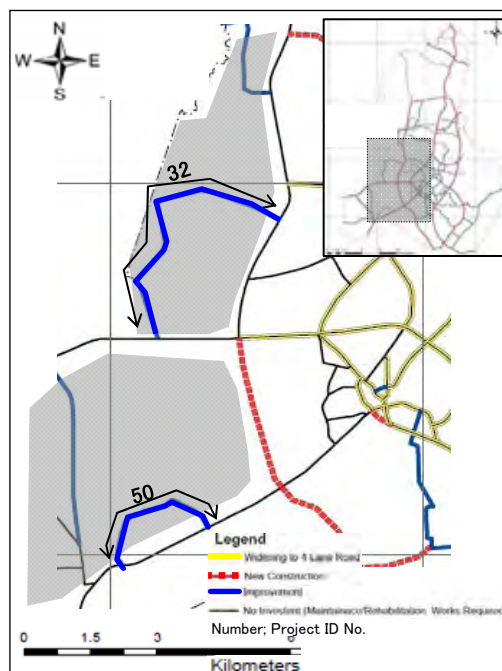
Program	Urban Living Environment Improvement Program		Sub-Program	Living Environment Improvement Sub-Program in THA/Unplanned Settlement		
Name of Project	Fund Creation for Community Social Infrastructure Development		Program Code No	2-1 (2)	ID No	CD8
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
Implementation/TA	0.05	LCC	NGO	People in THA/unplanned settlement		2 years
Project Description						
Main Objectives	Fund Creation and Management					
Sub-Projects/ Scope of Works	(xx) Legal arrangement for “Fund” to be generated through land adjustment method			Investment schedule (Mil. US\$)		
	(xxi) Establishment of “Fund” management system					
	(xxii) Study on unplanned settlement where is to be redeveloped through land adjustment method			Short		
	(xxiii) Implementation of “Fund” utilization for community infrastructure development			Middle		
	(xxiv) Information management system from (i) to (iv)			Long		
Remarks	Rationales		Status		Others	
	The project is consistent with poverty alleviation policy in MMDGs.		Land adjustment for upgrading of land is permissible. The project needs legal arrangement for “Fund” creation.			
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	C (TA might be necessary for “Fund” management system)		C (TA portion)			
Environmental Key Issues	Anticipated impacts: No impacts. EIA required: No					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	<p>Project descriptions:</p> <ul style="list-style-type: none">“Fund” as part of LCC’s budget revenue is to be managed by a trustworthy NGO who is responsible for reporting on fund utilization as well as management of community social infrastructure development.“Fund” could trigger off facilitation of redevelopment of unplanned settlement through lawful land adjustment method.The project would contribute to upgrading of quasi-residential area, namely, the statutory housing area. <p>Project implementation:</p> <p>y) The project should coordinate with other priority projects such as “Improvement of Land Registration Management” and “Strengthening of Land Registration System”.</p> <p>z) The Planning and Development Department, LCC together with NGOs would be responsible for study on unplanned settlement for subdivision plan for redevelopment.</p> <p>aa) MoLGRD is requested to assist LCC in preparation of legal arrangement for “Fund”.</p>					

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Urban Living Environment Improvement Program		Sub-Program	Living Environment Improvement Sub-Program in THA/Unplanned Settlement		
Name of Project	Improvement of Social Service by Strengthening of Community-based Organization (CBO)		Program Code No	2-1 (3)	ID No	CD9
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
Study/ Implementation	0.05	LCC	CBO	People in THA/unplanned settlement		2 years
Project Description						
Main Objectives	Improvement of living environment in THA and unplanned settlement					
Sub-Projects/ Scope of Works	(xxv) Identify public services that can be transferred to CBOs and annual budget for those services			Investment schedule (Mil. US\$)		
	(xxvi) Training of CBO candidates for implementation of services					
	(xxvii) Implementation of pilot projects by CBOs					
	(xxviii) Evaluation of pilot projects			Short0.05		
	(xxix) LCC budget appropriation for promising CBO-based public services delivery			Middle-		
Remarks	Rationales		Status		Others	
	The project is consistent with poverty alleviation policy in MMDGs.		Malawi does not experience this kind of project. The project would be highlighted as public (LCC)-private (CBO) cooperation scheme.			
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	C (TA might be necessary for training of CBOs and implementation of pilot projects)		C (TA portion)		NGOs may assist LCC in training and implementation of pilot projects	
Environmental Key Issues	Anticipated impacts: No impacts. EIA required: No					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project descriptions: <ul style="list-style-type: none">LCC is able to extend the similar service provision to THA/unplanned settlement based on performance of pilot projects.The project could contribute to community-based activities and income generation even outside THA/unplanned settlement.The project could enhance sustainable creation of formal employment. Project implementation: <ul style="list-style-type: none">bb) The Planning and Development Department, LCC is liable for strengthening of CBOs. Training of trainer (TOT) would be the likely method so that LCC would seek for external fund financing TOT and implementation of pilot projects.cc) The Departments of LCC should coordinate among them in order to identify the likely public services that can be transferred to CBOs. Solid waste collection could be one of such services so that the project should coordinate with “solid waste disposal system improvement”.					

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Urban Living Environment Improvement Program		Sub-Program	Living Environment Improvement Sub-Program in THA/Unplanned Settlement		
Name of Project	Transportation Development/Improvement; Community Road Improvement in THA/Unplanned Settlement		Program Code No	2-1 (4)	ID No	RD32/50/56
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
Construction	24.2	RA/LCC/ MoLHUD	RA/LCC/ MoLHUD	People in THA/unplanned settlement		Throughout the entire planning period
Project Description						
Main Objectives	To improvement in living environment					
Sub-Projects/ Scope of Works	(i) Preparation Urban and Primary Community Road in THA/unplanned settlement			Investment schedule (Mil. US\$)		
	(ii) Road maintenance and rehabilitation of (i)			Short	8.4	
				Middle	5.2	
				Long	10.6	
Remarks	Rationales		Status		Others	
			No fund is secured yet.			
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	D		D			
Environmental Key Issues	Anticipated impacts: No negative impact. EIA required: No					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project Location:					
	Project descriptions: RD32; Improvement of Urban Road in Area 56 & 62 RD50; Upgrading to Primary Community Road in Area 57 RD56; Road Maintenance and rehabilitation Program					



Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Urban Living Environment Improvement Program		Sub-Program	Living Environment Improvement Sub-Program in THA/Unplanned Settlement																																						
Name of Project	Urban utility development, rehabilitation, expansion; water kiosk development, provision of safe latrine, composting & cleaning education in THA/unplanned settlement		Program Code No	2-1 (5) (i)	ID No	WS 6																																				
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required																																				
DD and Construction	11.7	LWB/CBO	LWB/CBO	People in Lilongwe City		Throughout the entire planning period																																				
Project Description																																										
Main Objectives	To provide improved water supply service to the people of Lilongwe City in THA/Unplanned settlement																																									
Sub-Projects/ Scope of Works	(i) New service connection (ii) New kiosk (iii) Water meter			Investment schedule (Mil. US\$)																																						
				Short	1.0																																					
				Middle	3.8																																					
				Long	6.9																																					
Remarks	Rationales		Status		Others																																					
	To achieve the target of full safe water coverage, new service connections and kiosks must be provided.		A five-year service connection and kiosk extension program is included in MPUWSP. The procurement of water meters and funds for service extension in short term are also included in NWDP II.		Medium and long term finance is not yet secured.																																					
External Supports	Technical Assistance*		Financial Assistance*		Other supports																																					
	F		F																																							
Environmental Key Issues	Anticipated impacts: Provision of service connection only, no impact. EIA required: No																																									
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	<table><tr><td></td><td>THA/Unplanned Settlement</td><td>Low/Middle/High Density Area</td><td colspan="3">Total</td></tr><tr><td>①New Service Connection</td><td>49,000 (4,000)</td><td>15,200 (12,300)</td><td colspan="3">201,000 (16300)</td></tr><tr><td>②New Kiosk</td><td>2,550 (400)</td><td>- (-)</td><td colspan="3">2,550 (400)</td></tr><tr><td>③Water Meter</td><td>1,200 (1,250)</td><td>3,800 (3,800)</td><td colspan="3">5,000 (5000)</td></tr><tr><td></td><td></td><td></td><td colspan="3"></td></tr><tr><td>Total Cost</td><td>①+②+③= US\$11.7 Mil.</td><td>①+③= US\$22.3 Mil.</td><td colspan="3">Total US\$34.0 Mil.</td></tr></table>							THA/Unplanned Settlement	Low/Middle/High Density Area	Total			①New Service Connection	49,000 (4,000)	15,200 (12,300)	201,000 (16300)			②New Kiosk	2,550 (400)	- (-)	2,550 (400)			③Water Meter	1,200 (1,250)	3,800 (3,800)	5,000 (5000)									Total Cost	①+②+③= US\$11.7 Mil.	①+③= US\$22.3 Mil.	Total US\$34.0 Mil.		
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	*numbers in parentheses are for short term																																									
	Source: JICA Study Team																																									
	Financial requirement for new service connection, new kiosk, and water meter in residential area including THA/Unplanned settlement is estimated to be US\$ 34.0 million. Out of which, those required for THA/Unplanned settlement is estimated at to be US\$ 11.7 million while the remaining (US\$ 22.3 million) for planned residential area (Low/Middle/High density areas). Water supply services proposed in 2-1(5) are those applied to THA and unplanned settlement. For instance, water kiosk is included in 2-1(5). New kiosk service is not included in water supply service of planned area which is shown in 2-2(4) (i).																																									

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Urban Living Environment Improvement Program		Sub-Program	Living Environment Improvement Sub-Program in THA/Unplanned Settlement		
Name of Project	Urban utility development, rehabilitation, expansion; water kiosk development, provision of safe latrine, composting & cleaning education in THA/unplanned settlement		Program Code No	2-1 (5) (ii)	ID No	SS 5
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
Providing hardware	32.0	MolWD/LWB/LCC	NGO	People in THA/unplanned settlement		Throughout the entire planning period
Project Description						
Main Objectives	To bring low income people under safe sanitation practice					
Sub-Projects/ Scope of Works	(i) Provide hardware for the VIP latrine; (ii) Provide support for proper construction; and (iii) Provide financial assistance.				Investment schedule (Mil. US\$)	
					Short	6.0
					Middle	10.0
					Long	16.0
Remarks	Rationales	Status		Others		
	The currently used dug-hole type pit latrines are among the most unsafe sanitation practices.	The current EU/EIB funded MPUWSP project includes the provision of 29,640 latrines in 5 years.This is only for short term (US\$ 6.0 million)		Medium and long term finance is not yet secured.		
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	A		A		Support from manufacturers	
Environmental Key Issues	Anticipated impacts: Positive impact only. EIA required: No					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project descriptions: <ul style="list-style-type: none">Provision of Ventilated Improved Pit (VIP) latrines hardwareConversion of current pit latrines to VIP latrinesProvide social education for proper usage of the latrinesProvide access to construction materials and skills, andProvide financing in the form of either grant or no-interest revolving fund *VIP latrines for THA is an interim measures					

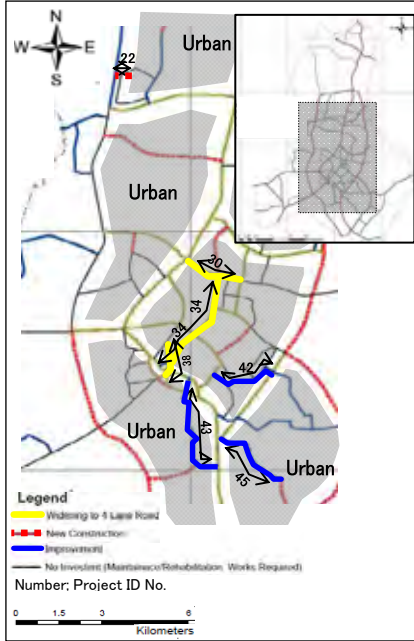
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Program	Urban Living Environment Improvement Program		Sub-Program	Living Environment Improvement Sub-Program in THA/Unplanned Settlement		
Name of Project	Urban utility development, rehabilitation, expansion; water kiosk development, provision of safe latrine, composting & cleaning education in THA/unplanned settlement		Program Code No	2-1 (5) (iii)	ID No	SW 10
Type of Project	Indicative Capital Cost Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
TA	0.2	MoIWD/LWB/LCC	NGO	People in THA/unplanned settlement		
Project Description						
Main Objectives	Promotion of participatory solid waste management (Composting)					
Sub-Projects/ Scope of Works	(i) Selection of the community participating in the project			Investment schedule (Mil. US\$)		
	(ii) Selection of waste collector and other actors					
	(iii) Training of the community and other concerned organization and people					
	(iv) Operations of the system including separation of organic waste at community and composting at the private nursery					
	(v) Preparation of regulatory framework for sustainability of the project			Short	0.2	
				Middle	-	
				Long	-	
Remarks	Rationales		Status		Others	
	Cooperation of stakeholders such as community, NGOs, and private firms are necessary for sustainable solid waste management		This project is on going by UNDP and LCC from 2008 to 2011.			
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	F		F			
Environmental Key Issues	Primary factors for EIA: none					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project descriptions:					
	UNDP and the stakeholders including the LCC, NGOs, and a private company have been conducting the project named “Waste for Wealth, Promoting Zero Waste Environment” since 2008. Composting through community participation is one of the major aspects of this UNDP project.					
	It is expected that the project will create employment, improve food security, enhance soil fertility, generate data and information for planning purposes, build the capacity of local community and reduce costs associated with municipal solid waste management at city level.					
	The project is conducted at a small scale. It is expected that the applied system would be expanded to other areas and communities will make use of the outcome from the project.					

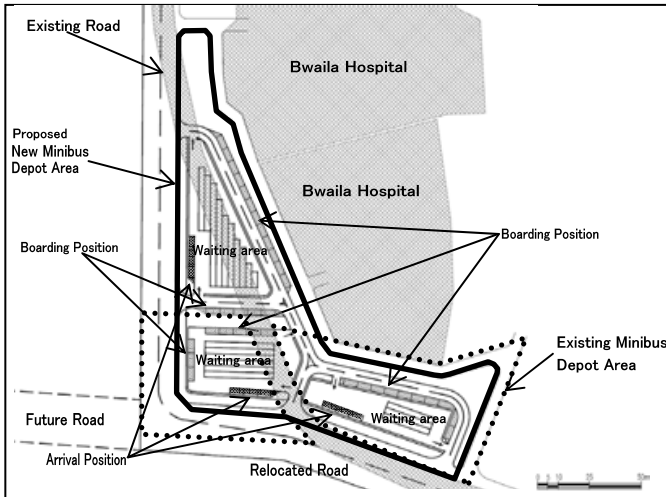
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Program	Urban Living Environment Improvement Program		Sub-Program	Living Environment Improvement Sub-Program in THA/Unplanned Settlement		
Name of Project	Urban utility development, rehabilitation, expansion; water kiosk development, provision of safe latrine, composting & cleaning education in THA/unplanned settlement		Program Code No	2-1 (5) (iv)	ID No	SW 12
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
TA	1.4	MoIWD/LWB/LCC	NGO	People in THA/unplanned settlement		
Project Description						
Main Objectives	Promotion of participatory solid waste management (Cleaning Education)					
Sub-Projects/ Scope of Works	(i) To develop incentive system to subsidize the participating community			Investment schedule (Mil. US\$)		
	(ii) To identify several participating communities					
	(iii) To monitor community activities and performance					
	(iv) To inform the public about the community's contribution and effect of their activities			Short 1.2		
	(v) To share good practices among participating communities			Middle 0.2		
	(vi) To expand the number of participating communities			Long -		
Remarks	Rationales		Status		Others	
	Project will lead people to realize problem and their responsibility with solid waste					
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	C		C			
Environmental Key Issues	Primary factors for EIA: none					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	<p>Project descriptions:</p> <p>Sanitation promotion is a very basic requirement to ensure the improvement of human living environment. This aspect as well as awareness creation is also considered in the ongoing UNDP project. In addition to sanitation promotion, the responsibility of waste generators should also be recognized. To encourage people's responsibility in SWM, it is expected that this project will lead people to realize that they could contribute to SWM.</p> <p>Since the market for recyclables such as aluminum, steel, paper and plastic does not exist in the city at the present, collection of recyclables has not been so attractive for the general people including the poor. It is proposed that the LCC would initiate steps to make recyclable materials attractive and valuable through coordination with private companies.</p>					

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Urban Living Environment Improvement Program		Sub-Program	Transportation and Urban Utility Services Upgrading Sub-Program		
Name of Project	Urban Road Construction, Maintenance/Rehabilitation and Inventory Database		Program Code No	2-2 (1)	ID No	RD22/30/34/38/42/43/45/52/56/57
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
TA	85.2	LCC/RA	LCC/RA	Road Users in Lilongwe City		Throughout the entire planning period
Project Description						
Main Objectives	To Utilization of resources					
Sub-Projects/ Scope of Works	(i) Preparation of Urban and Primary Community Road (ii) Road maintenance and rehabilitation (iii) Development of Road inventory database			Investment schedule (Mil. US\$)		
				Short	33.2	
				Middle	16.7	
				Long	35.3	
Remarks	Rationales	Status		Others		
		No fund is secured yet.				
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	D		D			
Environmental Key Issues	Anticipated impacts: No negative impact. EIA required: No					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project Location:					
	Project descriptions: RD22; Construction of Connection Road with Area 25 Market RD30; Widening of Presidential Drive I RD34; Widening and Improvement of Kenyatta Road RD38; Widening of Murray Road RD42; Upgrading to Urban Road in Area 7 & 8 RD43; Upgrading to Urban Road in Area 36 & 37 RD45; Upgrading to Urban Road in Area 22 & 24 RD52; Construction of Primary Community Road to Presidential Drive in Area47 RD56; Road Maintenance and rehabilitation Program RD57; Development of Road Inventory Database					

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Urban Living Environment Improvement Program		Sub-Program	Transportation and Urban Utility Services Upgrading Sub-Program		
Name of Project	Public Transportation Improvement (Expansion of Minibus Depot in Old Town, Review of Minibus Operation and Routes)		Program Code No	2-2 (2)	ID No	PT02/04
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
TA	0.8	LCC	LCC/NOAM	Minibus Users in Lilongwe City		1 year
Project Description						
Main Objectives	To improvement public transport environment.					
Sub-Projects/ Scope of Works	(i) Expansion of Minibus Depot in Old Town (ii) Review of Minibus Operation and Routes				Investment schedule (Mil. US\$)	
					Short	0.8
					Middle	-
					Long	-
Remarks	Rationales		Status		Others	
	Congestion minibus depot. Increase of public transport users is expected.		Managed by MOAM. No fund is secured yet.			
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	D		D			
Environmental Key Issues	Anticipated impacts: No negative impact. EIA required: No					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project Location and Layout:					
						
Project descriptions:						
<ul style="list-style-type: none">PT02; Expansion of Minibus Depot in Old Town; Land preparation & related road constructionPT04; Review of Minibus Operation and Routes; Study on efficient route formation in terms of cost performance and users' convenience						

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Urban Living Environment Improvement Program		Sub-Program	Transportation and Urban Utility Services Upgrading Sub-Program		
Name of Project	Traffic Control Management Establishment (Development of Safety Traffic Master Plan, Development of Safe Pedestrian Network, Development of Cycle Road Network)		Program Code No	2-2 (3)	ID No	TS01/02/03
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
TA	16.0	LCC/ NRSCM	LCC/ NRSCM	People in Lilongwe city		Throughout the entire planning period
Project Description						
Main Objectives	To achieve the safety traffic condition					
Sub-Projects/ Scope of Works	(i) Development of Safety Traffic Master Plan				Investment schedule (Mil. US\$)	
	(ii) Development of Safe Pedestrian Network				Short	3.3
	(iii) Development of Cycle Road Network				Middle	8.2
					Long	4.5
Remarks	Rationales		Status		Others	
	Traffic accidents have been increasing in Lilongwe City.		Road Accidents Database managed by the National Road Safety Council in conjunction with the Malawi Police Service.			
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	D		D			
Environmental Key Issues	Anticipated impacts: No negative impact. EIA required: No					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project Location: All the roads in Lilongwe City. Project descriptions: <ul style="list-style-type: none">TS01; Improvement of Safety Traffic Master Plan<ul style="list-style-type: none">Study on Safety Traffic Master PlanPlanning of Review of road traffic law, Accident database system development, Revision of road design guidelinesTS02; Development of Safe Pedestrian Network<ul style="list-style-type: none">Sidewalk installation and/or widening at heavy pedestrian traffic sectionsPedestrian crossing installation at intersectionsPedestrian bridge installation at intersections and road wideningPedestrian signal installation at intersections and road wideningTS03; Development of Cycle Road Network<ul style="list-style-type: none">Study on cycle road network systemInstallation of cycle roadsConstruction of cycle roads					

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Urban Living Environment Improvement Program		Sub-Program	Transportation and Urban Utility Services Upgrading Sub-Program																																						
Name of Project	Water Supply System Development/Improvement (Service Extension and Development, NRW Reduction Program)		Program Code No	2-2 (4) (i)	ID No	WS 6																																				
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required																																				
DD and Construction	22.3	LWB/CBO	LWB/CBO	People in Lilongwe City		Throughout the entire planning period																																				
Project Description																																										
Main Objectives	To provide improved water supply service to the people of Lilongwe City in low/middle/high residential area																																									
Sub-Projects/ Scope of Works	(iv) New service connection (v) New kiosk (vi) Water meter			Investment schedule (Mil. US\$)																																						
				Short	2.0																																					
				Middle	7.2																																					
				Long	13.1																																					
Remarks	Rationales	Status		Others																																						
	To achieve the target of full safe water coverage, new service connections and kiosks must be provided.	A five-year service connection and kiosk extension program is included in MPUWSP. The procurement of water meters and funds for service extension in short term are also included in NWDP II.		Medium and long term finance is not yet secured.																																						
External Supports	Technical Assistance*		Financial Assistance*		Other supports																																					
	F		F																																							
Environmental Key Issues	Anticipated impacts: Provision of service connection only, no impact. EIA required: No																																									
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	<table><tr><td></td><td>THA/Unplanned Settlement</td><td>Low/Middle/High Density Area</td><td colspan="3">Total</td></tr><tr><td>①New Service Connection</td><td>49,000 (4,000)</td><td>15,200 (12,300)</td><td colspan="3">201,000 (16300)</td></tr><tr><td>②New Kiosk</td><td>2,550 (400)</td><td>- (-)</td><td colspan="3">2,550 (400)</td></tr><tr><td>③Water Meter</td><td>1,200 (1,250)</td><td>3,800 (3,800)</td><td colspan="3">5,000 (5000)</td></tr><tr><td></td><td></td><td></td><td colspan="3"></td></tr><tr><td>Total Cost</td><td>①+②+③= US\$11.7 Mil.</td><td>①+③= US\$22.3 Mil.</td><td colspan="3">Total US\$34.0 Mil.</td></tr></table>							THA/Unplanned Settlement	Low/Middle/High Density Area	Total			①New Service Connection	49,000 (4,000)	15,200 (12,300)	201,000 (16300)			②New Kiosk	2,550 (400)	- (-)	2,550 (400)			③Water Meter	1,200 (1,250)	3,800 (3,800)	5,000 (5000)									Total Cost	①+②+③= US\$11.7 Mil.	①+③= US\$22.3 Mil.	Total US\$34.0 Mil.		
		THA/Unplanned Settlement	Low/Middle/High Density Area	Total																																						
	①New Service Connection	49,000 (4,000)	15,200 (12,300)	201,000 (16300)																																						
	②New Kiosk	2,550 (400)	- (-)	2,550 (400)																																						
	③Water Meter	1,200 (1,250)	3,800 (3,800)	5,000 (5000)																																						
	Total Cost	①+②+③= US\$11.7 Mil.	①+③= US\$22.3 Mil.	Total US\$34.0 Mil.																																						
	*numbers in parentheses are for short term																																									
	Source: JICA Study Team																																									
	*Refer to the Project Sheet 2-1(5) (i)																																									

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Urban Living Environment Improvement Program		Sub-Program	Transportation and Urban Utility Services Upgrading Sub-Program		
Name of Project	Water Supply System Development/Improvement (Service Extension and Development, NRW Reduction Program)		Program Code No	2-2 (4) (ii)	ID No	WS 7
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
System improvement	8.0	LWB/CBO	LWB/CBO	People in Lilongwe City		Throughout the entire planning period
Project Description						
Main Objectives	To reduce the current loss of 44% to target loss of 25% in 2030					
Sub-Projects/ Scope of Works	(i) Reduce physical loss			Investment schedule (Mil. US\$)		
	(ii) Reduce administrative loss					
	(iii) Increase water availability			Short		
	(iv) Improve financial status			Middle		
(v) Preserve resources			Long			
Remarks	Rationales		Status		Others	
	Reduction of NRW will not only reduce the load on the source and treatment plant but also reduce the operation cost and increase efficiency.		A five-year NRW reduction program is included in MPUWSP.		Medium and long term finance is not yet secured.	
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	F		F			
Environmental Key	Anticipated impacts: System improvement activities only, no impact. EIA required: No					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project descriptions: Under the ongoing EU-funded MPUWSP project, the NRW component is included. Its scope includes: <ul style="list-style-type: none">• Equipment and tools for leak detection,• SCADA telemetry system,• Data loggers with data transfer capabilities,• Pipe work repair material, and• Pressure monitoring and control valves. It takes four years to accomplish the above project. The service contractor (Vitens-Evides International of Netherlands) has been mobilized on November 2009 and is expected to accomplish its service on August 2013. No location map is available.					

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Urban Living Environment Improvement Program		Sub-Program	Transportation and Urban Utility Services Upgrading Sub-Program		
Name of Project	Sanitation System Improvement (Preparation of Sewerage and Sanitation Master Plan, Sanitation Promotion Campaign, Study on on-site Sanitation (OSS) Management)		Program Code No	2-2 (5) (i)	ID No	SS 1
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
Study	1.0	MolWD/LCC	-	People in Lilongwe City		12 months
Project Description						
Main Objectives	A strategic sanitation planning for Lilongwe					
Sub-Projects/ Scope of Works	(i) Implementation plan for handover from LCC to LWB			Investment schedule (Mil. US\$)		
	(ii) Define LCC's role in the interim period					
	(iii) Detail the system development plan			Short		
	(iv) Identify short, middle and long term projects			Middle		
(v) Implementation plan with investment cost			Long			
Remarks	Rationales		Status		Others	
	This master plan to be prepared for implementation of the National Sanitation Policy		This master plan is under component D of the on-going WB-funded NWDP II			
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	F		F			
Environmental Key Issues	Anticipated impacts: Study only, no negative impact. EIA required: No					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project descriptions: <ul style="list-style-type: none">Review the National Sanitation Policy and prepare an implementation plan for service handover (from LCC to LWB).Define LCC's role in the interim period.Confirm vision, mission, target and objective of the sector.Compile basic information on topographic and foundation conditions.Compile information on existing inventory and customer base.Analysis of ambient water and wastewater.Detail the system development plan.Determine the conditions for extension of the sewer network.Define applicable design criteria for network size and treatment plants.Identify short, medium and long term projects/programs.Estimate investment and operation costs and prepare implementation plan.Evaluate from technical, environmental, social, economic, financial, legal and institutional aspects.					

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Urban Living Environment Improvement Program		Sub-Program	Transportation and Urban Utility Services Upgrading Sub-Program		
Name of Project	Sanitation System Improvement (Preparation of Sewerage and Sanitation Master Plan, Sanitation Promotion Campaign, Study on on-site Sanitation (OSS) Management)		Program Code No	2-2 (5) (ii)	ID No	SS 4
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
Public awareness campaign	13.5	MoIWD/LCC	-	People in Lilongwe City		Throughout the entire planning period
Project Description						
Main Objectives	Increase public awareness through the sanitation marketing approach					
Sub-Projects/ Scope of Works	Public awareness building for, (i) safe storage and treatment of water at the household level; (ii) access to and effective use of a sanitation facility such as a latrine; and (iii) hand washing with soap			Investment schedule (Mil. US\$)		
				Short		5.0
				Middle		3.5
				Long		5.0
Remarks	Rationales	Status		Others		
	Sanitation project, especially on-site sanitation system, cannot be successful without wide public participation.	A program called “Sanitation and Hygiene Promotion through Sanitation Marketing” is included in NWDP II. This is only for short term (US\$ 5.0 million)		Medium and long term finance is not yet secured.		
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	A		A		Overseas Volunteer	
Environmental Key Issues	Anticipated impacts: Public awareness building only, no negative impact. EIA required: No					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project descriptions:					
	Item	Description	Item	Description		
	Primary audience	<ul style="list-style-type: none">Plot/house landlordTenant/user parentsSchool childrenCommunity leadersTeachersReligious leaders	Secondary audience	<ul style="list-style-type: none">MinistryLWB, LCCOther concerned agenciesMediaNGOsLatrine buildersPit emptying providers		
	Target component	<ul style="list-style-type: none">Install/get access to a safe latrineUse the safe latrineMaintain the latrine	Product to promote	<ul style="list-style-type: none">VIP latrineLatrine doorPit emptying		
	Product availability	<ul style="list-style-type: none">LWB, LCCLocal marketNGOsSanitation promotion center	Promotion stage	<ul style="list-style-type: none">Drawing attentionProvide knowledgeEncouragementTake actionEvaluation		
	Promotion tools	<ul style="list-style-type: none">Media (radio, TV, newspaper)Cultural show, drama, song contestPosters, leaflets, newsletter, T-shirtsVisit by campaign staff, NGOTeaching in schoolDeliberation by religious leadersArranging field visit				

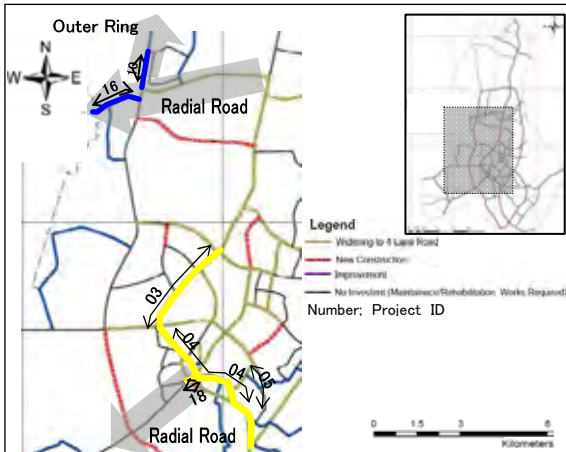
Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

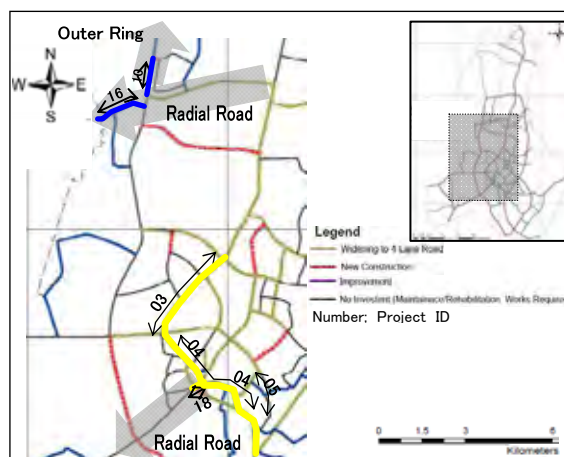
Program	Urban Living Environment Improvement Program		Sub-Program	Transportation and Urban Utility Services Upgrading Sub-Program		
Name of Project	Sanitation System Improvement (Preparation of Sewerage and Sanitation Master Plan, Sanitation Promotion Campaign, Study on on-site Sanitation (OSS) Management)		Program Code No	2-2 (5) (iii)	ID No	SS 6
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
Study	0.75	MolWD/LCC	-	People in Lilongwe City		12 months
Project Description						
Main Objectives	A study to formulate on-site sanitation management strategy, FS for collection and treatment, Support for OSS management unit					
Sub-Projects/ Scope of Works	(i) Preparation of sector strategy for monitoring, cleaning, collecting and treating of septage. (ii) Support for OSS management unit.			Investment schedule (Mil. US\$)		
				Short	0.75	
				Middle	-	
				Long	-	
Remarks	Rationales		Status		Others	
	Currently, there is no coordinated approach for septic tank management.		No fund is secured yet.			
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	B		C		Overseas volunteers	
Environmental Key Issues	Anticipated impacts: Study only. No negative impact. EIA required: No					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project descriptions: <ul style="list-style-type: none">Estimate the current septic tanks and prepare inventory (size, chambers, access point).Estimate the current and future septage generation.Determine the cleaning frequency.Estimate daily septage collection over the years.Review various collection methods and recommend the most optimum.Calculate the required number of collection vehicles.Prepare the monitoring regime for septic tank cleaning, including the possibility of GIS database.Fix tariff and its collection method.Study the possibility of communal septic tank.Conduct public awareness program.Review various treatment methods and recommend the most optimum.Complete initial assessment of the septage treatment facility.Prepare implementation plan and cost estimate.Evaluate the whole program from technical, financial, economic, environmental, social and institutional aspects.					

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Urban Living Environment Improvement Program		Sub-Program	Transportation and Urban Utility Services Upgrading Sub-Program		
Name of Project	Solid Waste Disposal System Improvement (Procurement of Equipment for Waste Collection, Transportation, Dumping, Pilot Project for Composting and Community Activity for Cleaning)		Program Code No	2-2 (6)	ID No	SW 3 SW 7
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
Procurement	35.3	LCC	LCC	People in Lilongwe City		
Project Description						
Main Objectives	Improvement of collection of solid waste and landfill operation					
Sub-Projects/ Scope of Works	(i) Basic design of equipment			Investment schedule (Mil. US\$)		
	(ii) Procurement of equipment					
	(iii) Training for operation and maintenance of equipment procured			Short2.8		
				Middle12.9		
				Long19.6		
Remarks	Rationales		Status		Others	
	Adequate number of equipment is necessary to improve solid waste management		Grant Project has been applied to the Government of Malawi			
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	B		A			
Environmental Key Issues	Primary factors for EIA: none					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project descriptions:					
	Enhancement of waste collection capacity should be conducted periodically to satisfy the waste collection demand.					
	The first phase of the project is intended to be implemented in the short-term. In order to make use of the equipment, the LCC has to prepare human and financial resources for waste collection and transportation.					
	Preparations should be made for the second and third phases of the project because more equipment for waste collection will be necessary as the collection area and population increase.					
	Current operation of the existing dumping site is insufficient or can be considered as almost no management. The LCC should commence regular operation and management at the dumpsite as soon as possible to prevent the negative environmental impacts from the disposed wastes.					
			Equipment	Spec	Short (2015)	Medium (2020)
Collection	Compactor truck	9.7 ton	9	14	113	
	Skip carrier	10 ton	3	29	-	
	Skip	6 m³	30	120	-	
	Tipper truck	-	1	1	4	
Landfill	Wheel loader	2 m³	1	1	1	
	Bulldozer	20 ton	1	2	4	
	Excavator	0.8 m³	1	1	1	
	Supervisory vehicle	2500 cc	1	1	1	

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Economic Infrastructure Enhancement Program for Economic Growth		Sub-Program	Urban Transportation Capacity Strengthening Sub-Program		
Name of Project	Major Road Development & Maintenance (M1, Ring, Radial)		Program Code No	3-1 (1)	ID No	RD03/04/05/10/16/18/56
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
TA	127.4	RA/LCC	RA/LCC	Road Users in Lilongwe City		Throughout the entire planning period
Project Description						
Main Objectives	To traffic congestion alleviation, connection during cities					
Sub-Projects/ Scope of Works	(i) Preparation of North – South Axis(M1)			Investment schedule (Mil. US\$)		
	(ii) Preparation of Ring Road					
	(iii) Preparation of Radial Road			Short		
	(iv) Road maintenance and rehabilitation			Middle		
				Long		
Remarks	Rationales		Status		Others	
	Serious traffic congestion of Old Town area. Lack of capacity of M1 road, and the capacity limit of Roundabout.		Support of Japan is under request.(M1:RD03/04/05)			
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	C		A			
Environmental Key Issues	Anticipated impacts: No negative impact. EIA required: Although it may be necessary, there is no issue mentioned especially.					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project Location:					
	Project descriptions:					
	RD03; Widening of M1 Area 18 Roundabout - Mchinji Roundabout					
	RD04; Widening of M1 Old Town Area					
	RD05; Widening of M1 Community Center - Chidzanja Road					
	RD10; Improvement of Northern Outer Ring Road I					
	RD16; Improvement of S123 in Area 50					
	RD18; Widening of S124 (Likuni Road) in Area 3					
	RD56; Road Maintenance Program					
						



Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Economic Infrastructure Enhancement Program for Economic Growth		Sub-Program	Urban Transportation Capacity Strengthening Sub-Program	
Name of Project	Traffic Control Management Establishment (Improvement of Intersections, Improvement of Car Parking System)		Program Code No	3-1 (2)	ID No TM01/03
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries	Expected Time Required
TA	4.8	RA/LCC	RA/LCC	Car Users and Pedestrian in Lilongwe City	Throughout the entire planning period
Project Description					
Main Objectives	To traffic congestion alleviation, safety, commercial activation				
Sub-Projects/ Scope of Works	(i) Improvement of Intersections (ii) Improvement of Car Parking System			Investment schedule (Mil. US\$)	
				Short	2.5
				Middle	1.3
				Long	1.0
Remarks	Rationales		Status	Others	
	Regional traffic congestion has occurred. The parking demand for commercial area increases.		No fund is secured yet.		
External Supports	Technical Assistance*		Financial Assistance*	Other supports	
	D		D		
Environmental Key Issues	Anticipated impacts: No negative impact. EIA required: No				
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project Location: Major road Intersections, Commercial area Project descriptions: <ul style="list-style-type: none">TM01; Improvement of Intersections;<ul style="list-style-type: none">- Installation of traffic signals at intersections without such system- Improvement of existing traffic signals- Signalization of roundabout- Channelizing, lane rearrangement, wideningTM03; Improvement of Car Parking System<ul style="list-style-type: none">- Parking guideline- Study on car parking system- Building code establishment to accommodate parking- Legislation of building code- Construction of parking facilities- Enforcement of parking management				

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Economic Infrastructure Enhancement Program for Economic Growth		Sub-Program	Urban Transportation Capacity Strengthening Sub-Program		
Name of Project	Other Transportation Improvement (Kamuzu International Airport Facility Improvement Project)		Program Code No	3-1 (3)	ID No	AT01/ AT02
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
TA	7.0	MoTPI	ADL	Malawi nation/ Visitor		1 year
Project Description						
Main Objectives	To global standardization of Kamuzu International Airport					
Sub-Projects/ Scope of Works	(i) Modernization of navigation System				Investment schedule (Mil. US\$)	
	(ii) Improvement of Baggage Handling System					
					Short	7.0
					Middle	-
				Long	-	
Remarks	Rationales		Status		Others	
	Annual growth rate of passenger and cargo at Kamuzu International Airport during 2000-2007 were and 1.05% 1.04% respectively.		A navigation system is to be funded by Government of Japan. No fund is available for baggage handling system as yet.			
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	A		A			
Environmental Key Issues	Anticipated impacts: No negative impact. EIA required: No					
Project Location, Project descriptions Scheme, or Drawings	Project Location: Kamuzu International Airport Project descriptions: <ul style="list-style-type: none">Modernization of Navigation System;<ul style="list-style-type: none">Standardization of the navigation system. The Preparatory Study for navigation system is scheduled to finish on September 2010. The Study then proceeds to procurement and construction stage.Improvement of Baggage Handling System and Its Area Expansion;<ul style="list-style-type: none">Installation of Baggage Handling System equipment and its area expansion					

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Economic Infrastructure Enhancement Program for Economic Growth		Sub-Program	Urban Utility Improvement Sub-Program		
Name of Project	Water Supply System Development/Improvement (Development of Diamphwe Dam as New Source, Development of New Water Treatment Plant)		Program Code No	3-2 (1) (i)	ID No	WS 1
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
F/S, DD/ Construction	14.0	MolWD/LWB	LWB	People in Lilongwe City		Study: 2 years Implementation: 3 Years
Project Description						
Main Objectives	To meet the growing water demand of Lilongwe City (Diamphwe Dam)					
Sub-Projects/ Scope of Works	(i) FS for new source (ii) Detail design of the dam. (iii) Construction of the dam and associated structures (Capacity 125,000 m3/d).			Investment schedule (Mil. US\$)		
				Short	14.0	
				Middle	-	
				Long	-	
Remarks	Rationales		Status		Others	
	Current source cannot meet the requirement after 2015.		“Feasibility Studies and Preliminary Design for Lilongwe’s New Water Source” is now on-going under the WB-funded NWDP II.		Only the study cost of US\$1.6 million is secured	
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	F (only study) A (for construction)		F (only study) A (for construction)			
Environmental Key Issues	Anticipated impacts: Land acquisition and resettlement impact during construction. EIA required: yes					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	<p>Project descriptions:</p> <ul style="list-style-type: none">Feasibility study & preliminary design (ongoing)Detailed design and supervision consultancy,Land acquisition and resettlement compensation,Construction of dam and associated structures like road and canal,Dam H = 22 m, Yield = 125,000 m3/day,Raw water canaLCCcapacity = 1,500 L/s, L = 16 km <p>The scope of the FS includes:</p> <ul style="list-style-type: none">Topographic survey of the recommended dam site, future reservoir area and new treatment works siteTopographic survey of the transmission pipeline/canalGeotechnical survey of the recommended dam siteGeophysical survey of the recommended dam siteUpdate of the design criteriaHydraulic calculationsDevelopment of the preliminary design for the different components of the project: dam and/or intake, water treatment plant, transmission pipeline/canal, reservoir(s), pumping station(s), if neededPreparation of the capital cost estimate of each project on the basis of the preliminary designEnvironmental and social impact assessmentEconomic and financial analysis <p>A feasibility study started on November 2009 and is scheduled to accomplish by the third quarter of 2010.</p>					

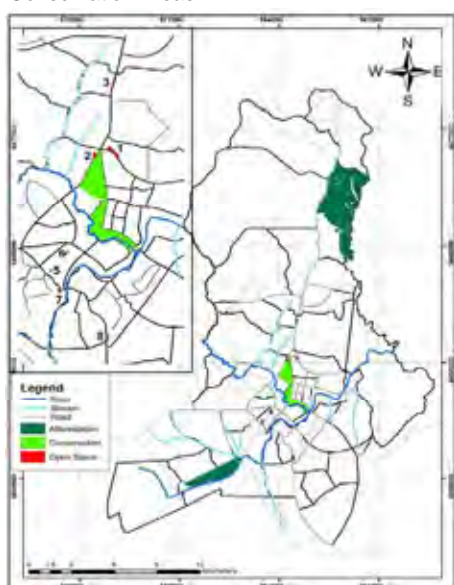
Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Economic Infrastructure Enhancement Program for Economic Growth		Sub-Program	Urban Utility Improvement Sub-Program		
Name of Project	Water Supply System Development/Improvement (Development of Diamphwe Dam as New Source, Development of New Water Treatment Plant)		Program Code No	3-2 (1) (ii)	ID No	WS 4
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
DD/ Construction	8.0	MolWD/LWB	LWB	People in Lilongwe City		DD: 1 year, Construction: 3 Years
Project Description						
Main Objectives	To meet the growing water demand of Lilongwe City (New Water Treatment)					
Sub-Projects/ Scope of Works	(i) Detailed design of the water treatment plant (WTP) (ii) Land acquisition and resettlement compensation (iii) Construction of the WTP, Capacity = 60,000 m3/day (iv) Transmission line, reservoir and lift pump			Investment schedule (Mil. US\$)		
				Short	8.0	
				Middle	-	
				Long	(8.0)	
Remarks	Rationales	Status		Others		
	Current WTP cannot meet the requirement after 2015.	F/S is included in the on-going new source F/S under the WB-funded NWDP II. Fund is not secured yet for implementation.		Phase 2 cost of US\$ 8.0 million is not included in the priority project		
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	A		A			
Environmental Key Issues	Anticipated impacts: Land acquisition and resettlement impact during construction. EIA required: yes					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project descriptions: <ul style="list-style-type: none">Detailed design and supervision consultancy,Land acquisition and resettlement compensation,Construction of water treatment plant and associated structures.WTP capacity in phase 1 = 60,000 m3/day,Lift pump stationTransmission mainReservoir					

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Economic Infrastructure Enhancement Program for Economic Growth		Sub-Program	Urban Utility Improvement Sub-Program		
Name of Project	Sanitation System Improvement(Rehabilitation of Lumbadzi STP		Program Code No	3-2 (2)	ID No	SS 8
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
Rehabilitation work	0.25	MolWD/LCC	-	People living in north Lilongwe City		12 months
Project Description						
Main Objectives	To re-start the STP of 1,200 m3/day capacity serving northern areas of Lilongwe City					
Sub-Projects/ Scope of Works	(i) Replacement of pipes and other components			Investment schedule (Mil. US\$)		
	(ii) Seeding and start of the STP					
				Short	0.25	
				Middle	-	
			Long	-		
Remarks	Rationales		Status		Others	
	Currently this STP is not working all sewerage is now going to the nearby river.		Ongoing under LCC budget.			
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	F		F			
Environmental Key Issues	Anticipated impacts: Rehabilitation only. No negative impact. EIA required: No					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project descriptions: <ul style="list-style-type: none">Replacement of steel collector pipe.Cleaning of ponds.Installation of flow meter and water quality measuring equipment.Seeding and trial run.					

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Urban Environment Enhancement Program for Creation of Attractive Capital City		Sub-Program	Park and Green Development Sub-Program		
Name of Project	Park Construction (1 Area Park, 6 Neighborhood Park, 1 Children Park)		Program Code No	4-1 (1)	ID No	EP1
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
Implementation	0.04	LCC	LCC	People in Lilongwe City		5 years
Project Description						
Main Objectives	Enhancement of recreation/greenery/relaxation value in the capital city					
Sub-Projects/ Scope of Works	(xxxii) Design of neighborhood park, children's playground and area park planned			Investment schedule (Mil. US\$)		
	(xxxiii) Construction of parks planned					
	(xxxiv) Introduction of PPP into planned parks in the area of operation and management			Short		0.04
	(xxxv) Implementation of PPP-based pilot projects			Middle		-
Remarks	Rationales		Status		Others	
	The project is consistent with a series of Acts, i.e. the Garden Act enacted in 1987.		The Project has been planned by the Department of Parks, Recreation and Environment, LCC.		Involvement of CBOs in parks' management would be necessary for sustainable operation of parks and the effective utilization of them as well.	
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	E		E		CBOs can be involved in parks' management in the form of PPP	
Environmental Key Issues	Anticipated impacts: Positive greenery and recreation impacts on areas where parks are constructed. EIA required: Yes					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project descriptions:					
	List of Parks Planned:					
	No	Location	Area	Classification	Remarks	
	1	Area10	5.0	Neighborhood park	PPP	
	2	Area18	2.0	Neighborhood park	US\$10,900	
	3	Area 28	3.0	Neighborhood park	US\$10,900	
	4	Area49	1.0	Neighborhood park	No location plan	
	5	Area4	3.0	Neighborhood park	US\$ 4,790	
	6	Area4	0.2	Children's playground	PPP	
	7	Area4	10.0	Area park	US\$ 6.300	
8	Area 8	2.0	Neighborhood park	US\$ 6,700		
Conservation Areas						
						

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Urban Environment Enhancement Program for Creation of Attractive Capital City		Sub-Program	Natural Greenery Preservation Sub-Program		
Name of Project	Afforestation of 1,520ha Barren Land in Area 45 and 54 (Lumbazi)		Program Code No	4-2 (1)	ID No	EP2
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries		Expected Time Required
Implementation	0.70	LCC	LCC	People in Lilongwe City		10 years
Project Description						
Main Objectives	To help the urban poor obtain firewood at an affordable price in a sustainable manner					
Sub-Projects/ Scope of Works	(xxxviii) Survey on urban demand and supply of firewood			Investment schedule (Mil. US\$)		
	(xxxix) Area of illegal tree cutting					
	(xl) Needs for forestation area based on (i) and (ii)			Short0.35		
	(xli) Implementation of forestation based on (iii)			Middle0.35		
	(xlii) Operation and maintenance			Long-		
Remarks	Rationales		Status		Others	
	The project is consistent with the basic principle of MMDGs.		The Project has been planned by the Department of Parks, Recreation, and Environment, LCC.			
External Supports	Technical Assistance*		Financial Assistance*		Other supports	
	B		A			
Environmental Key Issues	Anticipated impacts: Positive greenery impacts on areas where forestation is carried out. EIA required: Yes					
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project Location: a) Forestry land in Area 54 b) Forestry land in Area 45 Project Implementation a) LCC could require technical assistance from donors concerning scope of works for (i) to (iii) and fund for forestation. b) LCC could need training of staff members or CBOs for operation and maintenance of trees planted so that LCC is requested to appropriate its budget for O&M of the project.					

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going

Program	Urban Environment Enhancement Program for Creation of Attractive Capital City		Sub-Program	Natural Greenery Preservation Sub-Program	
Name of Project	River Side Trees Rehabilitation		Program Code No	4-2 (2)	ID No EP3
Type of Project	Indicative Capital Cost (Mil. US\$)	Implementation Organizations	Operation /Maintenance Organizations	Expected Beneficiaries	Expected Time Required
Implementation	0.03	LCC	LCC	People in Lilongwe City	10 years
Project Description					
Main Objectives	To preserve greenery environment along river sides				
Sub-Projects/ Scope of Works	(x) Implementation of tree planting			Investment schedule (Mil. US\$)	
	(xi) Maintenance of trees planted			Short	0.015
				Middle	0.015
				Long	-
Remarks	Rationales		Status		Others
	The project is consistent with afforestation policy of Department of Forestry, GoM.		The project was planned by the Department of Parks, Recreation and Environment of LCC.		
External Supports	Technical Assistance*		Financial Assistance*		Other supports
	E		E		
Environmental Key Issues	Anticipated impacts: No impacts. EIA required: Yes				
Project Location, Project descriptions Scheme, or Drawings or Project Implementation	Project descriptions: <ul style="list-style-type: none">It would take about 10 years to grow trees planted in river side area, however rivers and streams as buffer zones shall be protected.The project would contribute to improvement of urban amenity.The project triggers off income generation for labors who plant tree seeds. Project implementation: <ul style="list-style-type: none">dd) CBOs might be candidates for operation and maintenance of the project so that LCC would render raining services to them.ee) In connection with a), the project should coordinate with the priority project of 2-1(3)				

Note: *Rated as –A: must; B: Highly required; C: Needed; D: Conditional; E: Not Necessary and F: On-going