

IS AUTHORIT

LEVY

S CIVIL ENGINEERING

GOVERNMENT OF THE REPUBLIC OF MALAWI MINISTRY OF LOCAL GOVERNMENT AND RURAL DEVELOPMENT LILONGWE CITY COUNCIL



THE STUDY ON URBAN DEVELOPMENT MASTER PLAN FOR LILONGWE IN THE REPUBLIC OF MALAWI

FINAL REPORT <u>Drawings</u> SEPTEMBER 2010

JAPAN INTERNATIONAL COOPERATION AGENCY KRI INTERNATIONAL CORP. NIPPON KOEI CO., LTD.



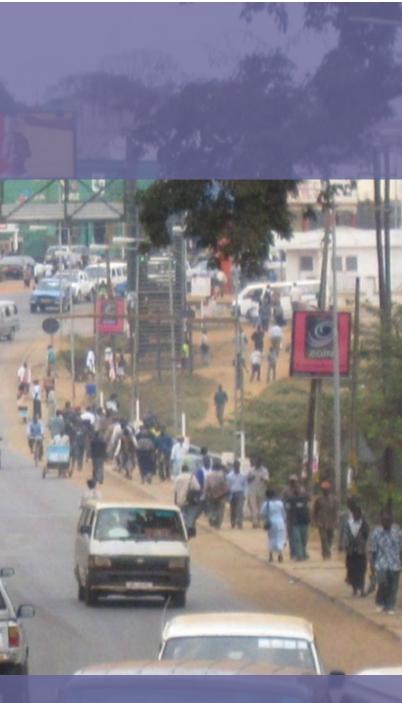




LILONGWE RIVE

Thm









GOVERNMENT OF THE REPUBLIC OF MALAWI MINISTRY OF LOCAL GOVERNMENT AND RURAL DEVELOPMENT

JAPAN INTERNATIONAL COOPERATION AGENCY

THE STUDY ON URBAN DEVELOPMENT MASTER PLAN FOR LILONGWE IN THE REPUBLIC OF MALAWI

FINAL REPORT

DRAWINGS

SEPTEMBER 2010

JAPAN INTERNATIONAL COOPERATION AGENCY

KRI INTERNATIONAL CORP. NIPPON KOEI CO., LTD.

EID	
JR	
10-144	

THE STUDY ON URBAN DEVELOPMENT MASTER PLAN FOR LILONGWE CITY IN THE REPUBLIC OF MALAWI

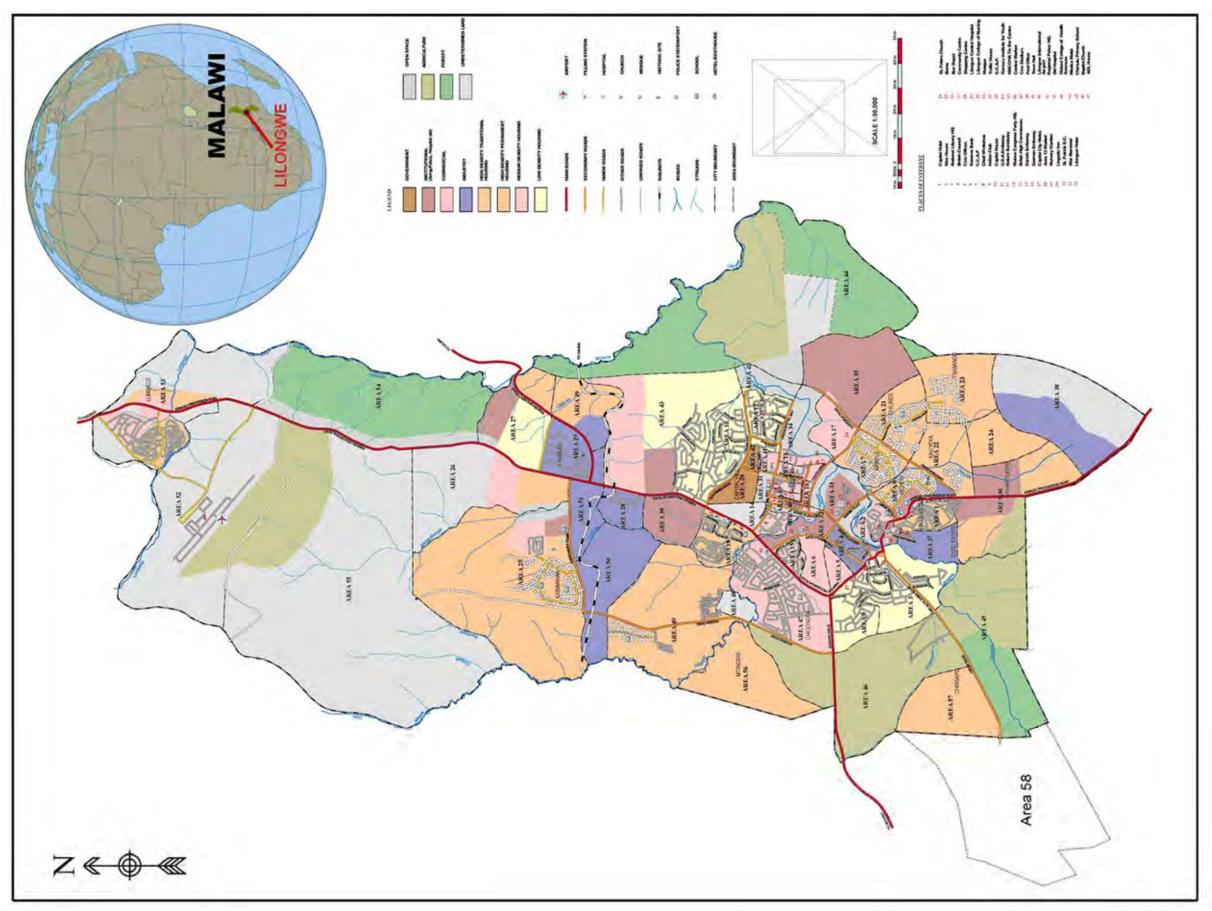
FINAL REPORT DRAWINGS

Table of Contents

1.	LOCATION MAP1
2.	GEOGRAPHICAL MAP OF LILONGWE CITY2
3.	CURRENT LAND USE MAP OF LILONGWE CITY
4.	2030 LAND USE MAP OF LILONGWE CITY4
5.	ZONING FOR URBAN LAND USE (2030)5
6.	ZONING FOR OPEN SPACE/ GREENERY6
7.	ZONING FOR RESIDENTIAL LAND USE7
8.	ZONING FOR COMMERCIAL LAND USE8
9.	INDUSTRIAL LAND USE ZONING (2030)9
10.	EXPANSION OF THE BUILT-UP AREA (URBAN LAND USE)10
11.	PROPOSED INSTITUTIONAL MEASURES
	FOR IMPLEMENTATION OF LAND USE ZONING11
12.	TRANSPORTATION DEVELOPMENT PLAN
	-LOCATION MAP OF PRIORITY PROJECT13
13.	URBAN UTILITY DEVELOPMENT PLAN
	-LOCATION MAP OF PRIORITY PROJECT15
14.	IMAGE OF FUTURE LILONGWE CITY16

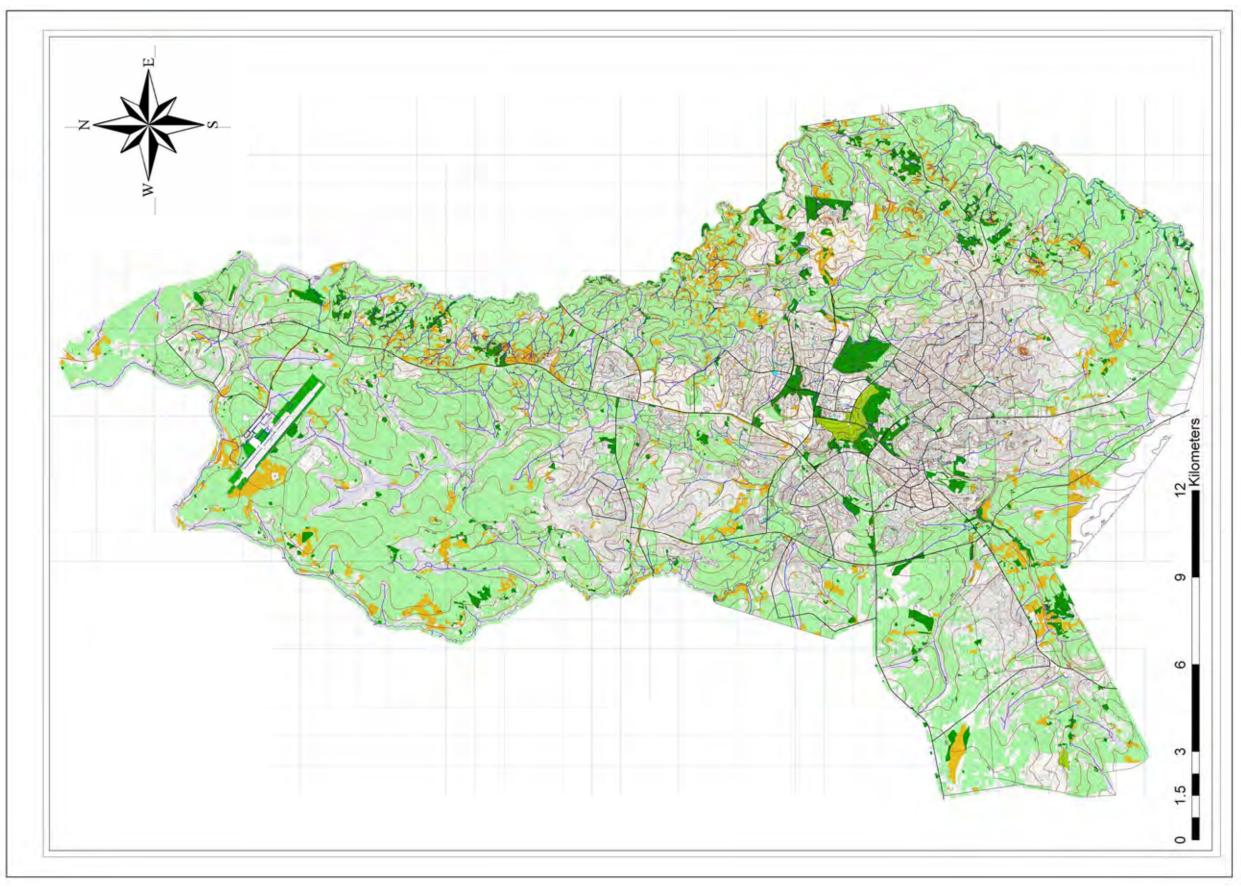


1. Location Map



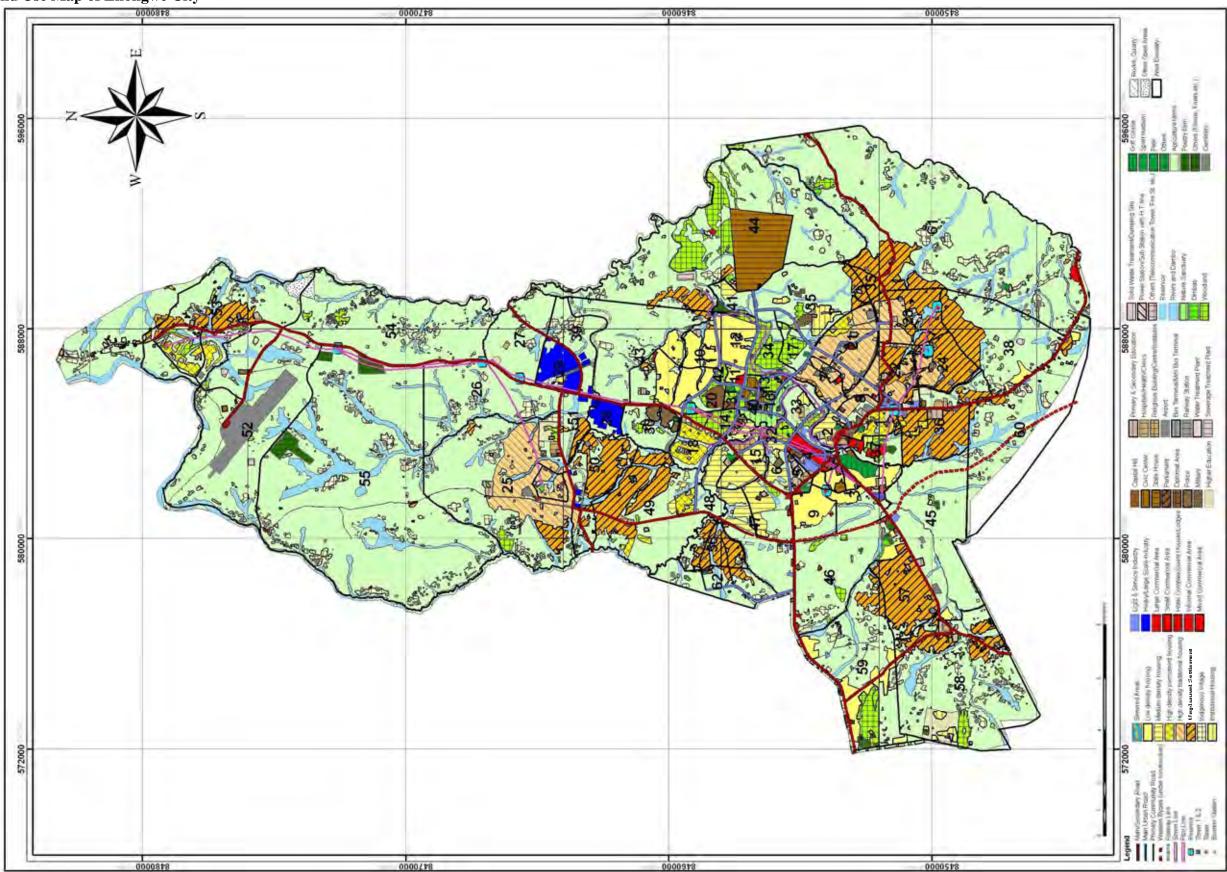


2. Geographical Map of Lilongwe City

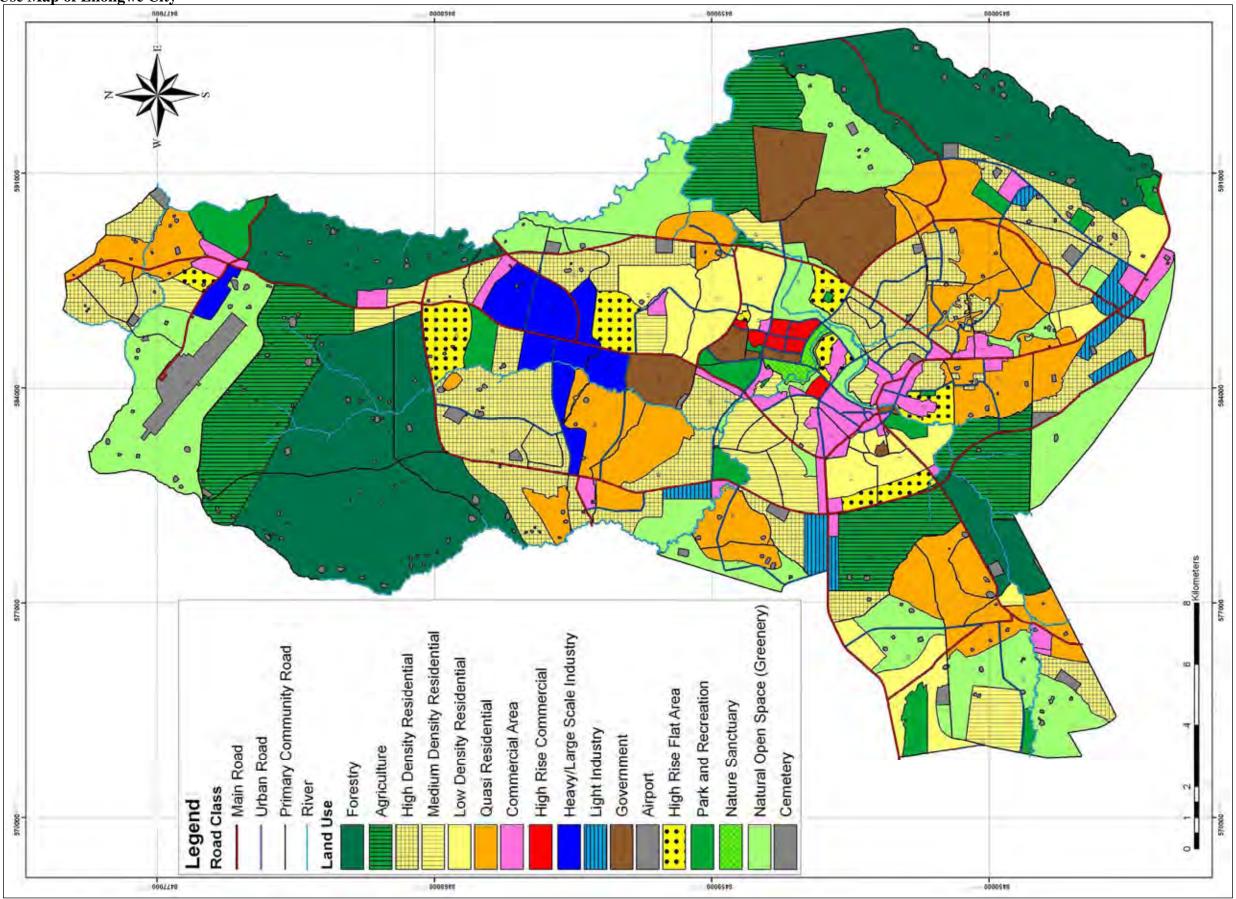


Concentration (Inc. Concentration) (Inc. Concentrat
Control Me Phutician (1/1 (2/15) (2/1
8 कि 1 - कि 1
the second
 C C C C C C C C C C C C C C C C C C C
Dera Lies Dera Lies Para Pa
Π Dest Total 1 Total 10 Total 10 Total 10 Prove Statistics 10 Prove Statistics 10 Prove Statistics 11 Prove Statistics 12 Prove Statistics 13 Prove Statistics 14 Prove Statistics 15 Prove Statistics 16 Prove Statistics 17 <td< td=""></td<>
loar Contracto Nader Contractoria District Consultant Contractoria La Constructura La Construc
Mark State Mark St
Interedient (humdley provide provider) provide provider provide provider) provide provider contractive de provider contractive de provider contractive de provider provider (and provider) contractive de provider provider (and provider) contractive de provider contractive
the netitional behavior

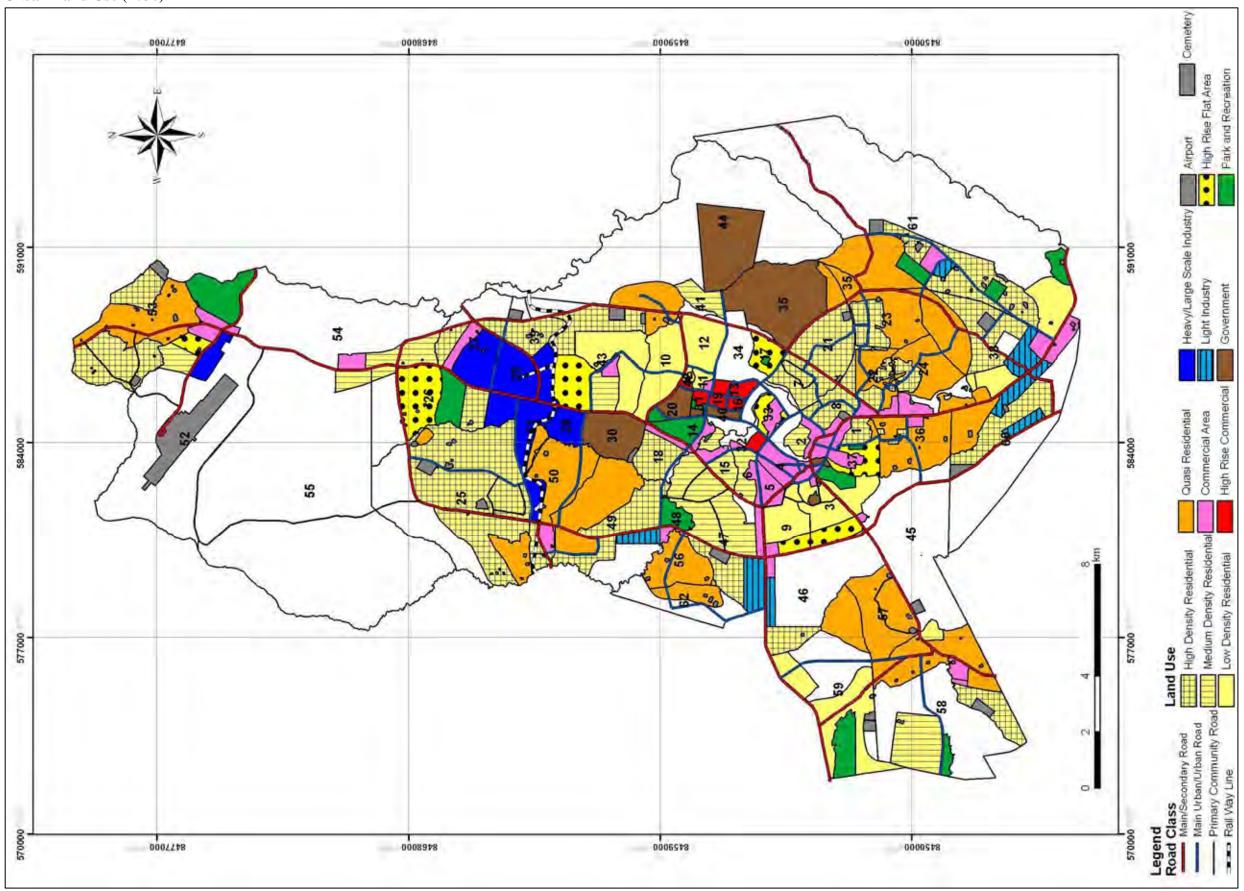
3. Current Land Use Map of Lilongwe City



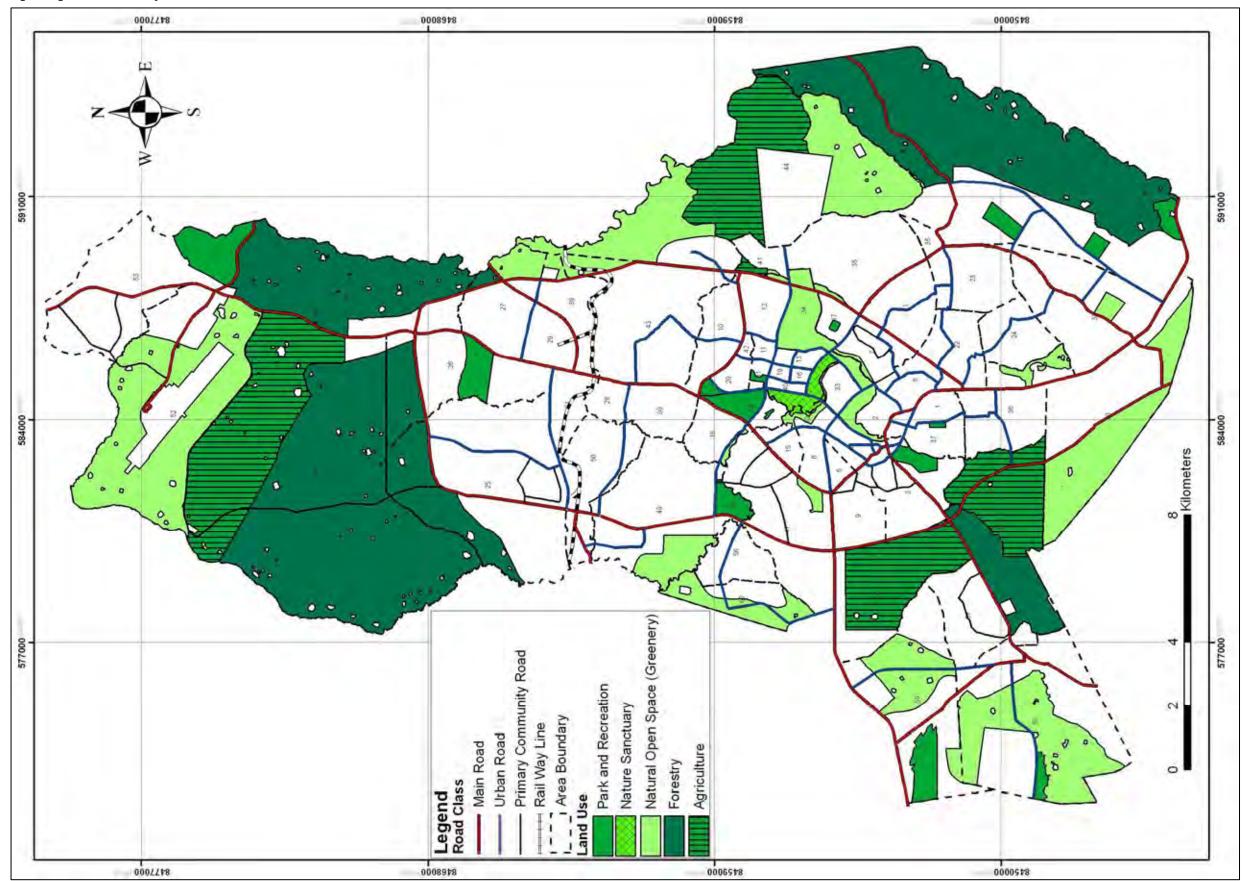
4. 2030 Land Use Map of Lilongwe City



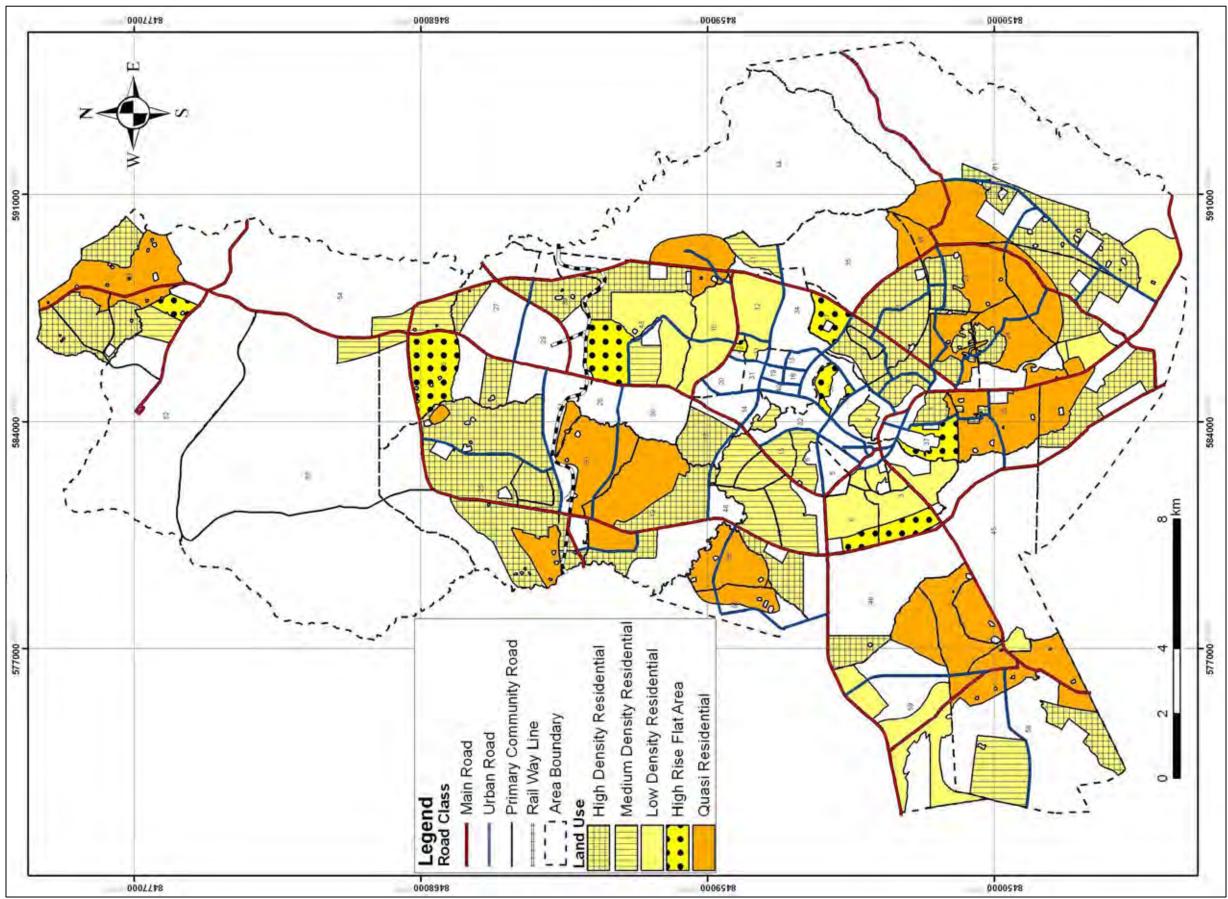
5. Zoning for Urban Land Use (2030)



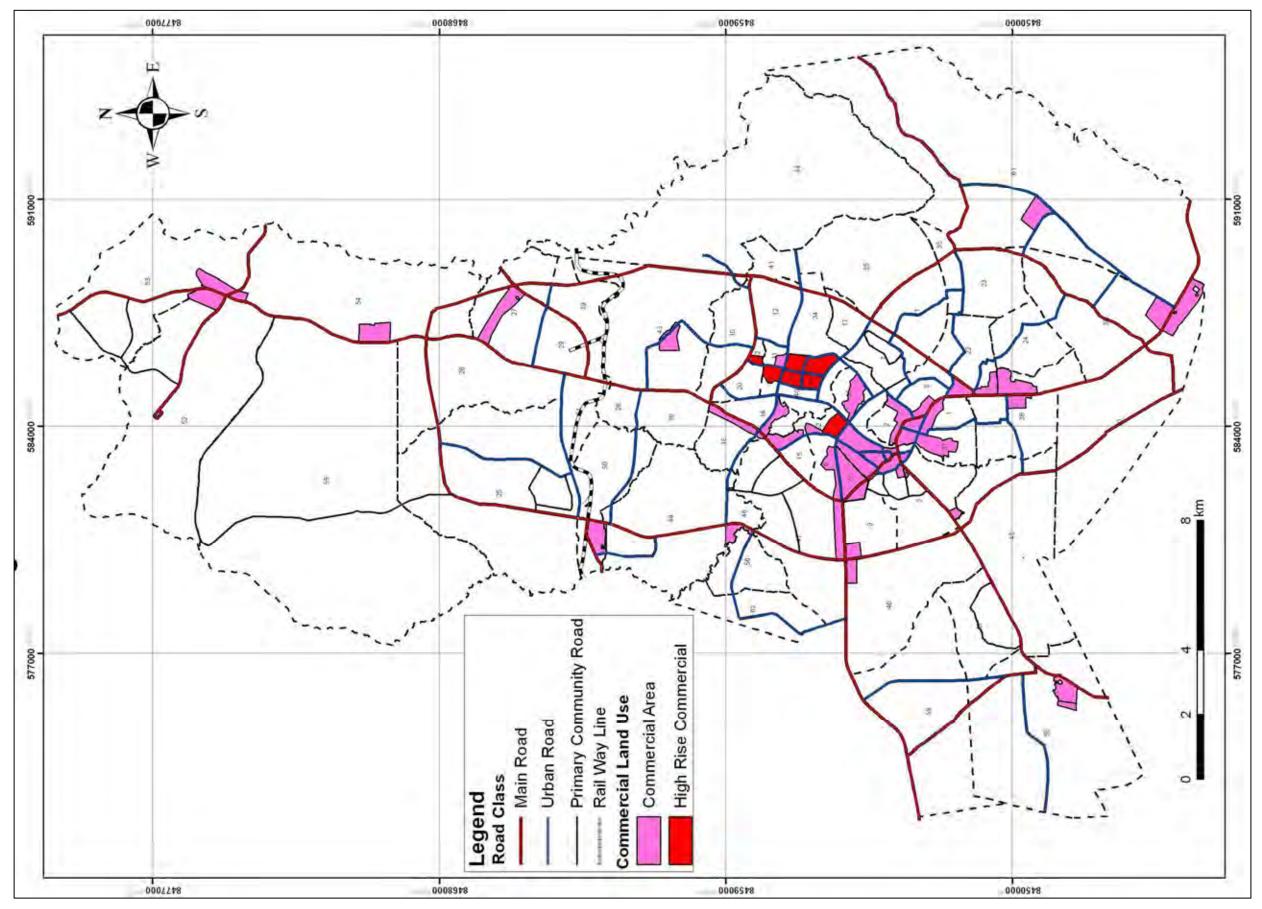
6. Zoning for Open Space/ Greenery



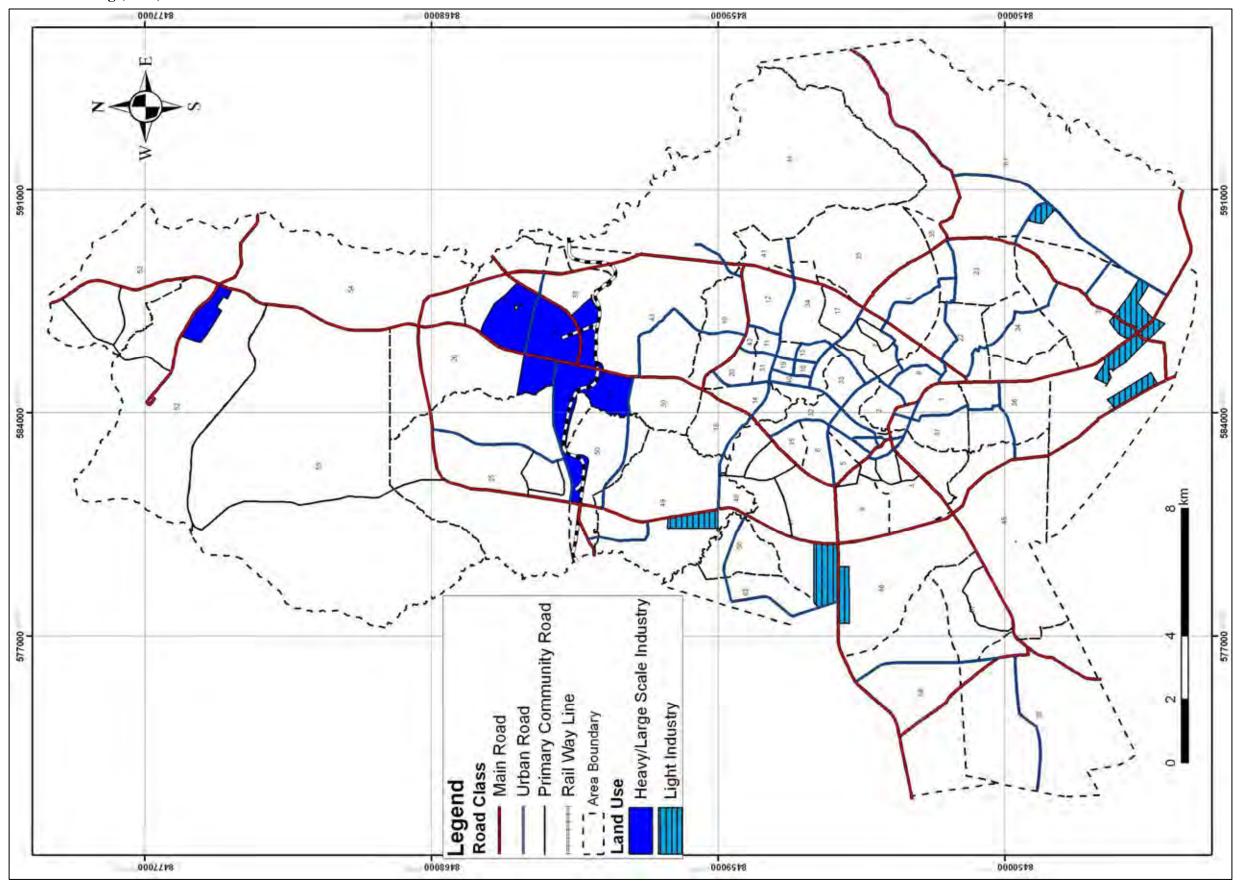
7. Zoning for Residential Land Use



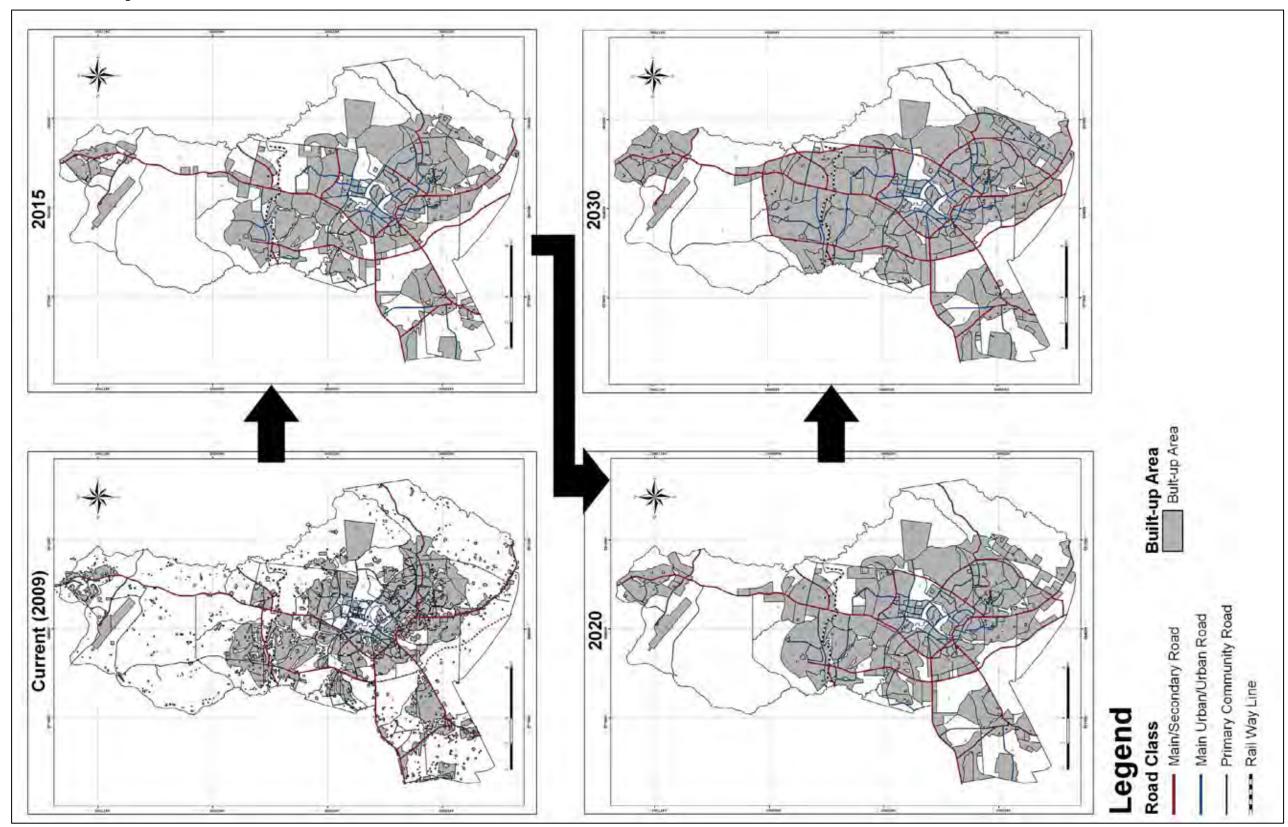
8. Zoning for Commercial Land Use



9. Industrial Land Use Zoning (2030)



10. Expansion of the Built-up Area (Urban Land Use)





11. Proposed Institutional Measures for Implementation of Land Use Zoning

Matrix Table to Control Building	Use/ Activity by]	Land Use Category

						Class	ificati	on of]	Land	Use Z	oning	;				
Activity/Building Use	LDR	MDR	HDR	QUR	HRR	COM	HRC	HID	LID	GOV	ARP	AGR	NST	PAR	FOR	GNO
Detached house	Р	Р	Р	Ρ	Р	Δ	Х	Х	Х	Δ	Х	Х	Х	Х	Х	Х
Semi-detached house	Р	Р	Р	Р	Р	Δ	Х	Х	Х	Δ	Х	Х	Х	Х	Х	Х
Flats	Δ	\triangle	Р	Р	Р	Р	Р	Х	Х	Δ	Х	Х	Х	Х	Х	Х
Hotels/Other Accommodation	Х	Х	Р	Р	Р	Р	Р	Х	Δ	Δ	Δ	Х	Х	Х	Х	Х
Retail shops, small storage*1	Δ	Δ	Р	Р	Р	Р	Р	Р	Р	Δ	Δ	Х	Х	Δ	Х	Х
Retail shops, small storage*2	Х	\triangle	Ρ	Р	Р	Р	Р	Р	Р	Δ	Δ	Х	Х	Δ	Х	Х
Retail shops, small storage*3	Х	Х	Р	Р	Ρ	Ρ	Р	Х	Х	Х	\triangle	Х	Х	Х	Х	Х
Retail shops, small storage*4	Х	Х	\triangle	\triangle	Х	Ρ	Р	Х	Х	Х	\triangle	Х	Х	Х	Х	Х
Commercial office*5	Δ	\triangle	\triangle	\triangle	Δ	Ρ	Р	Ρ	Р	Х	\triangle	Х	Х	Δ	Х	Х
Commercial office*6	Х	\triangle	Δ	Δ	Δ	Р	Р	Р	Р	Х	Δ	Х	Х	Х	Х	Х
Commercial office*7	Х	Х	Х	Х	Х	Р	Р	Р	Р	Х	Δ	Х	Х	Х	Х	Х
Commercial office*8	Х	Х	Х	Х	Х	Р	Р	Р	Р	Х	Δ	Х	Х	Х	Х	Х
Government Office	Δ	Δ	Δ	Δ	Δ	Р	Р	Δ	Δ	Р	Δ	Х	Х	Х	Х	Х
Entertainment/Leisure bldg.*9	Х	Х	Δ	Δ	Δ	Р	Р	Δ	\triangle	Х	Х	Х	Х	Х	Х	Х
Entertainment/Leisure bldg.*10	Х	Х	Х	Х	Х	Р	Р	Δ	Δ	Х	Х	Х	Х	Х	Х	Х
Public facilities (Police, fire station, post office)	Δ	Δ	Р	Р	Р	Р	Р	Р	Р	Р	Δ	х	х	х	x	x
Church/Religious Bldg	Р	Р	Р	Р	Р	Р	Р	Х			х	х	х	Х	x	х
Primary and secondary schools,	F	F	Г	Г	F	Г	Г	^			^	^	^	^	^	
library,	Р	Р	Р	Р	Р	Р	Р				х	х	х	х	x	x
culture center, museum			F	F	F	F	F				^	^	^	^	^	
University/College	X	х	Р	Р	Р	Р	Р	Р	Р	х	х	х	Х	х	x	х
Clinics	P	P	P	P	P	P	P	Δ	P	Δ	Δ	X	X	X	x	X
Hospitals		Δ	P	P	P	P	P	Δ	Δ	\triangle	X	X	X	X	X	X
Social welfare facilities	$\overline{\Delta}$	\triangle	P	P	P	P	P	X	X	\triangle	X	X	X	X	X	X
Wholesale/Distribution/Large		_			· ·	•										
storage facilities	Х	Х	Х	Х	Х	Х	Δ	Р	Р	Х	Δ	Х	Х	Х	X	Х
Light industry	X	Х	Х	Х	Х	Х	Х	Δ	Р	х	Х	Х	х	Х	x	Х
Heavy/large-scale industries	X	Х	Х	Х	Х	Х	X	Р	Δ	Х	Х	Х	Х	Х	X	X
Small workshop/repair	Х	Х	Х	Х	Х	Δ	Δ	Р	Р	Δ	Х	Х	Х	Х	х	Х
Petro filling station	X	X	X	X	X	Δ	\triangle	Δ	Δ	\triangle	X	X	X	X	X	X
Bus terminal	Х	Х	Х	Х	Х	Δ	Δ	Δ	Δ	Х	Х	Х	Х	Х	Х	Х
Special utility facilities	Х	Х	Х	Х	Х	Х	Х	Δ	Δ	Х	Х	Х	Х	Х	Х	Δ
Outdoor recreation facilities	X	Х	Х	Х	Х	Х	X	X	X	Х	Δ	Х	Δ	P	Δ	Δ
Agriculture-related buildings	X	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	P	Х	Х	X	X
Forestry-related buildings	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Р	Х	Х	Р	Х

Note: *1: Floor area under 50m²

Ρ *Permitted

*Special consent required (In condition, permitted) Δ

Х *Not permitted

- Note: *4: Floor area over 2000m²
- Note: *5: Floor area under 50m²
- Note: *6: Floor area over 50m² under 200m²

Note: *2: Floor area over 50m² under 200m²

Note: *3: Floor area over 200m² over 2000m²

- Note: *7: Floor area over 200m² over 2000m²
- Note: *8: Floor area over 2000m²
- Note: *9: Cinema, theatre, dance hall etc.

Note: *10: Night clubs, massage parlor, casino, cabaret

Exlanation of Land use zoning abbreviation is as follows:

LDR: Low density residential, MDR: Medium density residential, HDR: High density residential,

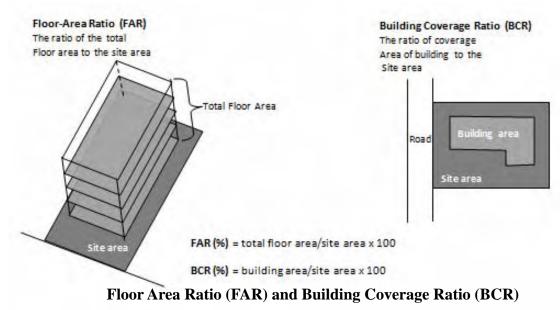
QUR: Quasi-ressidential, HRR: High-rise commercial

COM: Commercial, HRC: High-rise commercial

HID: Heavy industrial, LID: Light industrial

GOV: Governmental use, ARP: Airport, AGR: Agriculture, NST: Nature Sanctuary,

PAR: Park and recreation, FOR: Forestry, GNO: Greenery/natural open space



Regulation on Maximum Ratio of BCR and FAR for Density Control

	Land Use Category		Maxim	um Ratio
Category	Sub-Category	Abbreviation	BCR (%)	FAR (%)
	Low density residential	LDR	30	40
	Medium density residential	MDR	40	60
Residential	High density residential	HDR	50	80
	High-rise residential	HRR	30	100
	Quasi-residential	QUR	50	80
Commercial	Commercial	СОМ	40	100
Commerciar	High-rise commercial	HRC	30	200
Industry	Heavy indutry	HID	30	50
maasu y	Light industry	LID	30	50
Government	Government	GOV	40	100
	ARP	ARP	-	-
	Agriculture	AGR	-	-
Airport	Forestry	FOR	-	-
Airport	Nature Sanctuary	NTS	-	-
	Park and recreation	PAR	-	-
	Greenery/natural open space	GNO	-	-

Plot Size Regulation

	Land Use Category				
Category	Sub-Category	Abbreviation	Minimum	Maximum	
	Low density residential	LDR	1,000	2,000	
	Medium density residential	MDR	600	1,000	
Residential	High density residential	HDR	375	600	
	High-rise residential	HRR	10,000	-	
	Quasi-residential	QUR	375	600	

	Land Use Category		The number of storeies
Category	egory Sub-Category Abbreviatio		allowed above the ground
	Low density residential	LDR	1~2
	Medium density residential	MDR	1~2
	High density residential	HDR	1~3
Residential	High-rise residential (1) *1	HRR (1)	3~4
	High-rise residential (2) *2	HRR (2)	8~12
	High-rise residential (3) *3	HRR (3)	5~6
	Quasi-residential	QUR	1~3
Commercial	Commercial	COM	3~4
Commercial	High-rise commercial	HRC	8~12
Inductor	Heavy indutry	HID	1~3
Industry	Light industry	LID	1~3
Government	Government	GOV	1~5

Height Control

*1 HRR(1): located in Area 3 and Area 9

These areas are located just next to LDR. In view of harmonizing cityscape, the height control shall be restricted to 3-to 4-storey restriction.

In general, townhouse type residential development shall take place therein. ***2** HRR(2): located in Area17, 32 and 37

Since these areas are located very near to City Centre or in the middle of Old Town, the height control shall be 8- to 12-storey restriction

***3** HRR(3): located in Area 26 and 43

These areas are very near to the industrial zones. The height control shall be 5 - to 6 - storey -to-6-

Regulation for Building Line

	Land Use Category	Building Line			
Category	Sub-Category	Abbreviation	Front (m)	Rear (m)	Side (m)
	Low density residential	LDR	10	5	5
	Medium density residential	MDR	5	5	4
Residential	High density residential	HDR	5	3	3
	High-rise residential	HRR	10	8	8
	Quasi-residential	QUR	3	3	3
Commercial	Commercial	COM	2	10	-
Commerciar	High-rise commercial	HRC	30	20	20
Industry	Heavy indutry	HID	20	10	10
maasay	Light industry	LID	10	5	3
Government	Government	GOV	10	8	8

Standard for Minimum Requirement for Car Parking Spaces

	`		U 1
	Land Use Category		Car parking
Category	Sub-Category	Abbreviation	space(cars/plot)
	Low density residential	LDR	at least 2
	Medium density residential	MDR	at least 2
Residential	High density residential	HDR	at least 1
Residential	High-rise residential	HRR	at least the same number of units
	Quasi-residential	QUR	*5
Commercial	Commercial	COM	*1
Commerciar	High-rise commercial	HRC	*2
Industry	Heavy indutry	HID	*3
Industry	Light industry	LID	*4
Government	Government	GOV	*1

The number of minimum car spaces shall be calculated from the floor area (m²) of the building concerned by the following formula.

*1 N=F/50

 $F = F loor areas (m^2)$

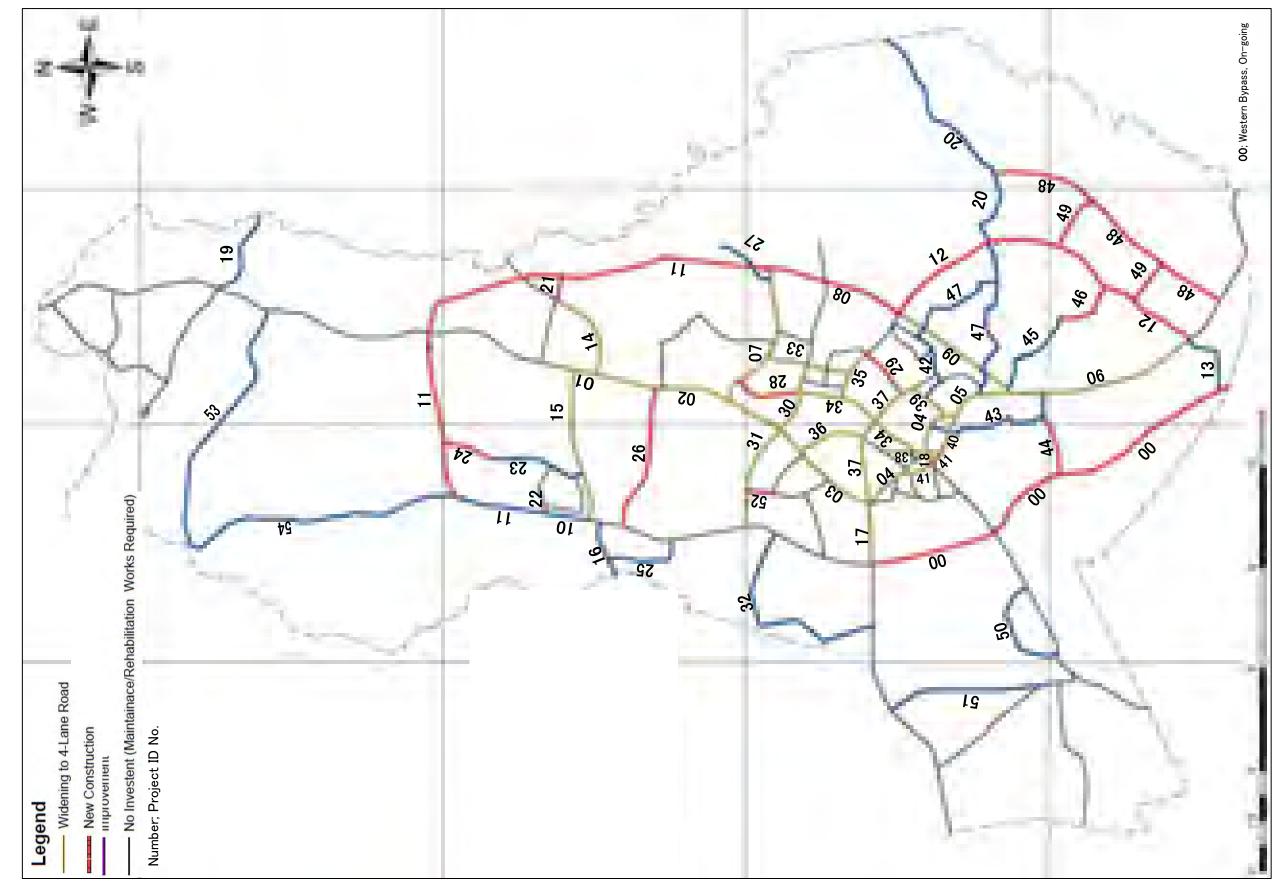
***3** N=F/300

*4 N=F/200

***2** N=F/40

*5 Common public parking space to be established with the ratio of 1 car/ 3 plots

N= the minimum car spaces to be needed



12. Transportation Development Plan -Location Map of Priority Project

		Koau	De	velopment Proje		
Function	ID No	Project		Function	ID No	Project
	RD01	Widening of M1 Kanengo			RD28	Construction of Parliament Circumferential Road i
	RD02	Widening of M1 Area18 Roundabout North	_		RD29	Construction of Urban Road in Area 33
North - South	RD03	Widening of M1 Area 18 Roundabout - Mchinji Roundabout			RD30	Widening of Presidential Drive I(M1 - Kenyatta Re
Axis (M1)	RD04	Widening of M1 Old Town Area			RD31	Widening of Presidential Drive II
	RD05	Widening of M1 Community Center - Chidzanja Road	-		RD32	Improvement of Urban Road in Area 56 & 62
	RD06	Widening of M1 South			RD33	Widening of Independence Drive & Chilembwe Ro
	RD07	Widening & Extension of Chayamba Road for Inner & Outer Rign Roads			RD34	Widening & Upgrading of Kenyatta Road
	RD08	Extension of Chidzanjya Road for Inner Ring Road			RD35	Widening of Youth Drive
T	RD09	Widening of Chidzanjya Road for Inner Ring road			RD36	Widening of Paul Kagame North Section
Inner and Outer Ring	DD10	Improvement of Northern Outer Ring Road I			RD37	Widening of Mzimba Road Extension
Roads	RD10	Improvement of Northern Outer Ring Road II			RD38	Widening of Murray Road
	RD11	Construction of North Western Arche of Outer Ring Road			RD39	Widening of Kawale Road
	RD12	Construction of South Western Arche of Outer Ring Road			RD40	Construction of Lilongwe Town Hall Roundabout
	RD13	Improvement of Western Bypass Access Road for Outer Ring Road		Urban Roads	RD41	Widening of Colby Road & Extension
	RD14	Widening of Salima Road (M14)			RD42	Upgrading to Urban Road in Area 7 & 8
	RD15	Widening of S123 in Area 50 & 51			RD43	Upgrading to Urban Road in Area 36 & 37
	RD16	Improvement of S123 in Area 50			RD44	Construction of Urban Road in Area 36
Radial Roads	RD17	Widening of Mchinji Road (M12)			RD45	Upgrading to Urban Road in Area 22 & 24
	RD18	Widening of S124 (Likuni Road) in Area 3			RD46	Construction of Connection Road Between Area 2-
	RD19	Improvement of T361 in Area 53 & 54			RD47	Improvement Area 22 & Area 23 Connection road
	RD20	Improvement of T363 in Area 61			RD48	Construction of Circumferential Road in Area 61
	RD21	Construction of Connection Road with Outer Ring Road in Area 39			RD49	Construction of Outer Ring Road Connection Road
	RD22	Construction of Connection Road with Area 25 Market			RD50	Upgrading to Primary Community Road in Area 57
	RD23	Improvement of Central Urban Road in Area 25			RD51	Urban Road Improvement in Area 58 & 59
Urban Roads	RD24	Construction of Central Urban Road Extension in Area 25	1		RD52	Construction of Primary Community Road to Press
	RD25	Upgrading to Urban Road in Area49			RD53	Improvement of Primary Community Road(for Ag
	RD26	Construction of Urban Road in Area 50 & 28 (missing link)			RD54	Improvement of Primary Community Road(for Ag
	RD27	Upgrading to Urban Road in Area 44 (to Kauma market)				
					•	

Road Development Projects

l in Area 14, 20 & 31
Road Section)
Road
t Deleted Deed
t Related Road
24 and Area 38
d
ads in Area38&Area61
57
sidential Drive in Area47
gricultural) in Area55
gricultural) in Area25&55

13. Urban Utility Development Plan -Location Map of Priority Project

