

# The Urban Structure Plan of Lilongwe City

DRAFT

17<sup>th</sup> June 2013

According to Town and Country Planning “Guidelines and Standards”, Office of the President and Cabinet, Town and Country Planning Department, March 1997, the Urban Structure Plan is Land Use Plan. The Urban Development Master Plan (hereafter UDMP) had already proposed the Land Use Plan 2030, Sector Development Plan such as Capacity Development Plan, Urban Transport Development Plan and Urban Utility Development Plan. Based on above plans, the Project of Urban Plan and Development Management of Lilongwe City (hereafter the Project) supports LCC revision of the Urban Structure Plan.

## Contents

1. Legal Status -----	1
2. Function -----	1
3. Planning History -----	1
4. Present Stage of Development -----	3
5. Aims of the Plan -----	4
6. Key Forecasts and Assumptions -----	5
7. Planning Strategy -----	8
8. Land Use Plan for 2030 -----	12
9. Implementation (Development Scenario by Phasing) -----	16
10. Land Use -----	22
11. Transport -----	27
12. Water Supply -----	30
13. Sanitation and Sewerage -----	31
14. Solid Waste Management -----	32
15. Development Control-----	33

## **1. Legal Status**

The Urban Structure Plan of Lilongwe City is the statutory land use plan for the City of Lilongwe. It constitutes a Local Physical Development Plan as provided for in Section 28 of the Town and Country Planning Act, Chapter 23:01 of the Laws of Malawi. The Plan consists of a statement of policies and proposals together with a plan. It has been prepared on behalf of the Lilongwe Town and Country Planning Committee by the Planning and Development Department of Lilongwe City Council. It was approved by the Committee on .....Date.

## **2. Function**

- 2.1 The Plan is primarily a land use plan, showing what land uses are permitted in each part of the City and where land is to be reserved for roads and other services. The aim is to ensure an orderly and efficient development of the City, under proper conditions of health and amenity. This cannot be achieved by land use planning alone. Complementary action is needed by the authorities responsible for providing urban services and facilities. The Planning Committee has a duty to co-ordinate this effort, so the Plan contains a number of recommendations concerning the provision and phasing of urban services. The Plan deals with the development of the City over the next fifteen years. It will be reviewed at least every five years.
- 2.2 The whole of the City of Lilongwe has been defined as a Planning Area under Section 9 of the Town and Country Planning Act. Any person wishing to carry out development is required to obtain permission from the Lilongwe Town and Country Planning Committee. The Planning Committee will have regard to the provisions of the Scheme in determining applications. Development proposals that are not in conformity with the Plan will not normally be granted permission. The Planning Committee has power to take legal action against any person failing to apply for permission, failing to observe the terms of consent or refusal, or obstructing the execution of a planning scheme.

## **3. Planning History**

- 3.1 The first plan for Lilongwe was published in 1955, but at that time there were no thoughts that one day the Town would become the Capital city. The decision to move the Capital from Zomba to Lilongwe was made in 1965. The aim was to improve Government efficiency by concentrating Central Government

administration in one city and, secondly, to stimulate development in the Central and Northern Regions by establishing a major growth point in the centre of the country. Consultants were appointed to prepare the Lilongwe Master Plan, which was completed in 1968. Many of the principles set out in the Master Plan were adopted in subsequent plans. The first of these was the Lilongwe Outline Zoning Plan 1969. It was prepared in order to elaborate the broad recommendations of the Master Plan and amend those aspects which the Government thought were inappropriate.

3.2 The Lilongwe Outline Zoning plan guided the early development of the Capital city. A liner, multi-centred urban form was adopted in order to avoid the congestion problems that can arise with a single centre. The aim was to cluster residential, employment and service areas around each centre, so as to reduce the need to travel long distances. There were four such centres and each one was focus of a sector of the City.

- (a) Old Town Primary Commercial Centre, comprising the twin established centres in Area 2 (Bwalonjobyu) and Area 3 (Kang'ombe)
- (b) City Centre, serving the Capital Hill sector
- (c) Kanengo Primary Commercial Centre in Area 25/2 (Bvunguti)
- (d) Lumbadzi Primary Commercial Centre, based on the established trading centre in Area 53/2 (Kalimbakatha).

The aims was to achieve a balance development (housing, industry, commerce, etc.). Another key feature of the City was its parkland setting. From the beginning there was a concern to create a high-quality environment with spacious living standards, as befits a capital city.

3.3 By the mid-1970's it was felt that there should be a new up-dated plan which would take a wider look at the development of the City. The result was the Lilongwe Urban Structure Plan 1978. This incorporated boundary changes and new planning work on Lumbadzi and the Kamuzu International Airport. The plan had been the main influence on planning policy.

3.4 In 1986, the initial stage of development was over, The City was well established and its future growth was assured. A large part of the road network had been built and there were water supply and electricity networks. Urban development was taking place in all four sectors of the City. The Old Town sector was nearly fully

developed; the Capital Hill sector was about half developed; and the Kanengo and Lumbadzi sectors were about one quarter developed.

3.5 The Lilongwe Outline Zoning Scheme was established and indicated the various land use of the new capital city. The said zoning scheme was reviewed and the city's jurisdiction area was expanded by including Area 56 and Area 57. Then Area 58 was added to the jurisdiction on the City according to the 2008 Population and Housing Census although its inclusion is not yet legitimized. (At this stage, it is not added the Area 58 into the jurisdiction on the Lilongwe City officially. This needs to be incorporated with Planning Area.) The 1986 Outline Zoning Scheme was intended to promote regulated urban development and appropriate land use for transport and other purposes. The Scheme was effective until 2000, but it was not updated after the year of 2000 due to financial, technical and human resources constrains.

3.6 In response to the official request of the Government of Malawi (GoM), the Government of Japan (GoJ) decided to conduct "the Study on Urban Development Master Plan for Lilongwe", which was entrusted to the Japan International Cooperation Agency (JICA), in accordance with the Agreement on Technical Cooperation between GoM and GoJ signed on 15<sup>th</sup> November 2008. The Study was jointly carried out by JICA study team and Malawi's counterpart agency for a fourteenth-month period from June 2009 to September 2010.

On 20<sup>th</sup> July 2011, the report on the Study of Urban Development Master Plan for Lilongwe City was approved by the Minister of Lands, Housing and Urban Development.

3.7 The Project for Urban Plan and Development Management of Lilongwe City was implemented from November 2012 to ..... with support from JICA. JICA Experts assisted Lilongwe City Council with the revision of Urban Structure Plan.

#### **4. Present Stage of Development**

4.1 The jurisdiction area of Lilongwe City, including Area 58, is 393 km<sup>2</sup> and has a population of approximately 674,000 according to the 2008 Population and Housing Census. Despite the fact that the existing outline zoning scheme was planned to develop the four sectors: (1) Old Town Sector, (2) Capital Hill Sector,

(3) Kanengo Sector, and (4) Lumbadzi Sector, the urban area has been expanding to the southern, south-western and western areas of the old town section of the city. Unplanned settlements occupied by illegal settlers expanded in almost all areas. Some areas have problems of illegal settlers occupying land designated for industrial development and public use. It is necessary to urgently identify and secure a sizeable land area for planned residential development.

- 4.2 The rapid increase in the number of vehicles causes traffic congestions on the National Road No.1 particularly in Old Town area, which also serves as an international arterial road passing through the centre of the urban area. Hence, this causes merging of international and intra-city transportation, creating a traffic issue that needs to be addressed. Other traffic-related issues that need to be dealt with include improvement of public transport facilities, improvement of access to unpaved areas, and widening of the main trunk roads.
- 4.3 The growing population of the City will increase demand on urban utilities like water supply, sewerage / sanitation and solid waste management. Improvement of urban utility services is of paramount importance for the enhancement of urban environment in the City.

Table 1 Lilongwe – Basic Data

Land Area	393 km <sup>2</sup>	
Population Growth Rate (1998-2008)	4.3 %	
Population & Population Density		
	(person)	(person / km <sup>2</sup> )
1966	19,425	49
1977	98,718	251
1987	223,318	568
1998	440,471	1,121
2008	674,448	1,702

## 5. Aims of the Plan

- 5.1 The zoning scheme for Lilongwe City that was reviewed in 1986, since its development, no longer responds to the reality and actual needs of the city. As previously mentioned, there are some new urban problems and issues which

have to be tackled before they reach a critical stage. Efficient and effective land use and urban infrastructure is of high importance in view of the limited resources available for Urban Development. The Lilongwe Outline Zoning Scheme 1986 is now out-of date. It is time to make the plan forward and provide for Urban development up to the year 2030.

## 6. Key Forecasts and Assumptions

6.1 The forecast of population growth is critical to nearly every aspect of the Plan. Another key indicator is the forecast of demand for residential land, which is derived from the population forecast and assumptions. Details of the population and housing forecast are as shown in the following Tables;

Table 2 Population Framework of Lilongwe City (1000)

	Population	Increase (Population)	
2008	674		
2015	972	2008-2015	298
2020	1,160	2015-2020	188
2030	1,580	2020-2030	420

Source: The Study on Urban Development Master Plan for Lilongwe, JICA, September 2010

Table 3 Population in dwelling, housing characteristics

Lilongwe City, 2008

	Population
Total Person	674,458
Permanent	247,260
Semi-permanent	337,712
Traditional	62,486

Source: 2008 Population and Housing Census

National Statistics Office of Malawi

6.2 The Study on Urban Development Master Plan for Lilongwe creates two scenarios for Lilongwe's population projection. The difference of population projections between the two scenarios would be 0.174 million in 2020 and 0.439 million in 2030. Scenario 1 is projected in a way that the City primacy rate (share of Lilongwe in total urban population) would continuously be the same in the future

as its present rate of 26%. With a slight increase of the primacy rate, Lilongwe's population would be more than that projected in Scenario 1. In this sense, Scenario 1 and the higher projection with an increase of its primacy rate would be the likely urbanization of areas encompassing the Greater Lilongwe, including Lilongwe City.

- 6.3 On the other hand, Scenario 2 involves the more likely projection of the City's population and urbanization. Urbanization of the City would modestly increase from 4.9 % in 2008 to 6.1% in 2030. Although its primacy rate is expected to decrease from 26% in 2008 to 20% in 2030, the difference of such rates would be absorbed into the suburban area.

The Study proposes Scenario 2 as the likely population framework of Lilongwe.

- 6.4 It is projected based on the labour force and economically active population of the City. Employment in the City comprises the formal and the informal sectors. The formal employment sector is classified into four:

- 1) Manufacturing, 2) Commercial, 3) Government, and 4) Agriculture

Table 4 Employment Framework of Lilongwe

Year		2008	2015	2020	2030
Formal Employment	Agriculture, Mining	3,200	5,800	8,100	15,100
	Manufacturing	18,300	33,000	45,000	86,100
	Commercial	38,500	74,000	98,100	171,700
	Government	40,000	45,000	50,000	60,000
	Sub-Total	100,000	157,800	202,000	332,900
Informal Employment		110,000	161,100	212,000	307,000
Total		210,000	318,900	414,200	639,900

Source: The Study on Urban Development Master Plan for Lilongwe, JICA, September 2010

- 6.5 The spatial distribution of the 2030 population is forecast based on the following principles:
- (1) Densification of low density permanent housing area (LDPHA) and medium density permanent housing area (MDPHA)
  - (2) Allocating night-time population (living population) in the City Centre Area

(Areas 13, 19, 31)

- (3) Persistent efforts for acceleration of planned and organized residential development
- (4) Stage-wise upgrading and legitimization of unplanned settlements
- (5) Monitoring and control to avoid biased concentration of population in THA
- (6) Necessary effort of increasing multi-storey buildings
- (7) Establishing two-centres for more attractiveness and efficiency
- (8) Mixed land use promotion in the central area
- (9) Relocation of industries from the central area to the suburban area
- (10) Diversification and Upgrading Development of Industries
- (11) Necessity of urban redevelopment in the Old Town
- (12) Creating parks
- (13) Preservation of greenery for urban growth control as well as for a land banking activity for future development after 2030

#### 6.6 Future expansion of the jurisdiction area of Lilongwe City

Lilongwe City is currently composed of Areas 1- 57. In addition, Area 58 is scheduled to be under its jurisdiction. The 2008 census has already included Area 58 as part of Lilongwe City, converting it from the previous Lilongwe District.

Housing development and urban sprawl are very active in Lilongwe City and particularly in the southern region. Urban expansion axis is now extending mainly to southeast, and to the west to a limited degree. In fact, urban sprawl is already expanding beyond some of the southern borderlines (Area 36, 38, 46, 56, 57 and 58).

It is appropriate to formulate the 2030 land use plan over the slightly large expanded areas, which includes Area 59, 60, 61 and 62. The land area (Area 1-58) is 393 km<sup>2</sup>. It will further increase to 474 km<sup>2</sup>. The Lilongwe City Council needs to start taking necessary steps to extend the city boundaries.

Area 59 :  
to the north from Area 57 and 58  
Area 60:  
to the south from Area 36 and 45  
Area 61: to the east from Area 38  
Area 62: to the west from Area 56

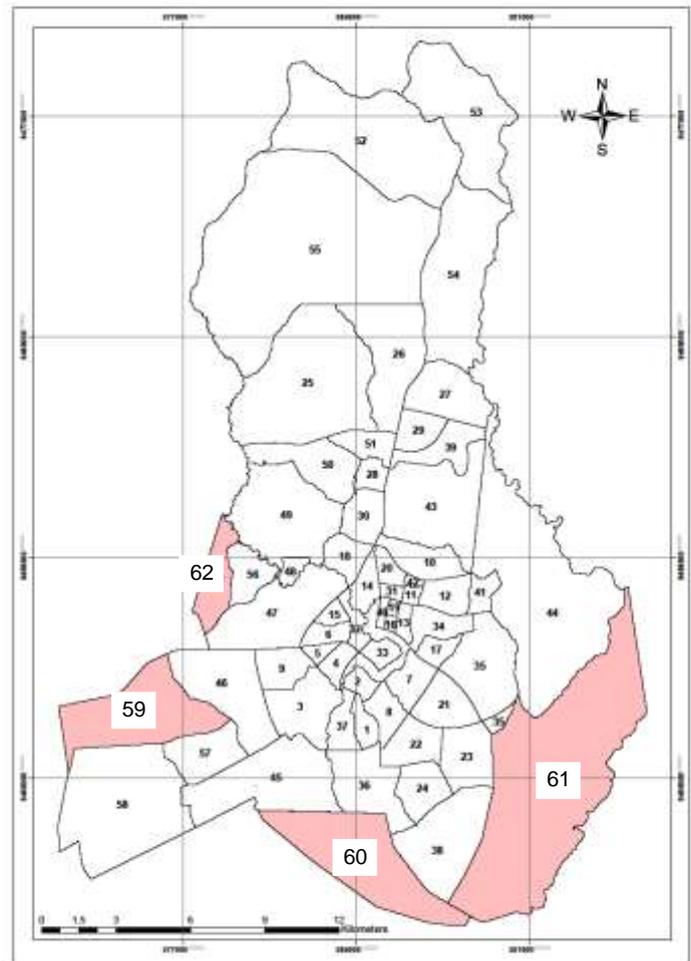


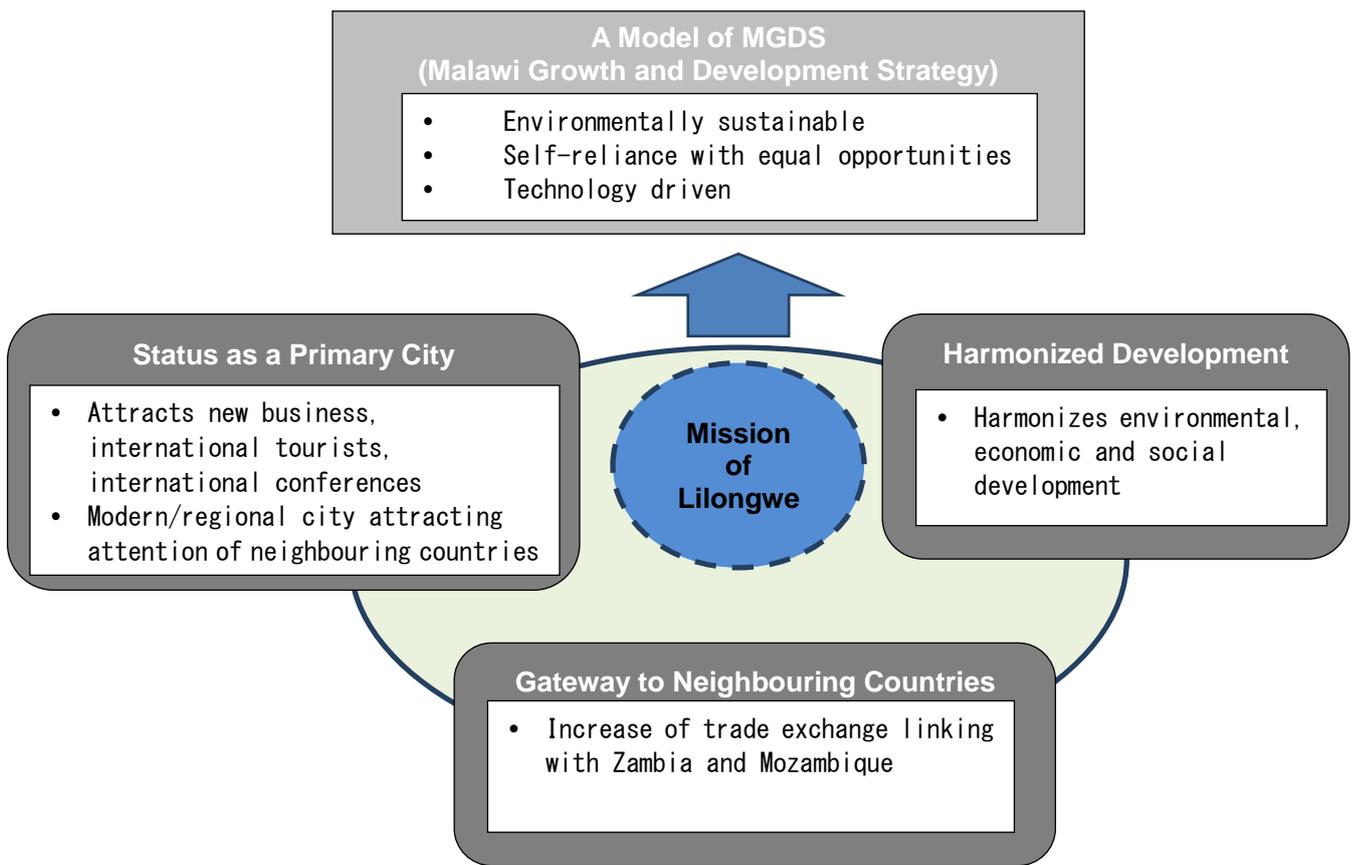
Figure 1  
The New Area to be Converted from LDA to LCC  
Source: The Study on Urban Development Master Plan for Lilongwe, JICA, September 2010

## 7. Planning Strategy

### 7.1 Mission of Lilongwe City

Lilongwe is expected to be the model of Malawi Vision 2020 as it will be environmentally sustainable, self-reliant with equal opportunities for active participation by all, and a technologically-driven middle-income economy. Lilongwe could also become a model of the Malawi Growth and Development Strategy (MGDS) for the five fiscal years from 2006/07 to 2010/11 that primarily aims at a balanced path between economic and social development. Taking account of the development trend of the city and its likely status in the national context, the mission of Lilongwe is predicted to be:

- (1) Status as a Primary City
- (2) Capital City with Environment, Economic, Social Harmonization, and
- (3) Gateway to Neighbouring Countries.



Source: The Study on Urban Development Master Plan for Lilongwe, JICA, September 2010

Figure 2 Missions of Lilongwe City

## 7.2 Development Direction of Lilongwe City

The characteristics of a new type of modern and thriving city are as follow;

### (1) Well-planned and environmentally friendly urban development

Well-planned and environment-friendly urban development should be realized by introducing land use control, gradual conversion of unplanned settlement to other land uses, and greenery policy for land use plan. Lilongwe City Council to come up with procedure process for doing this.

### (2) Multi-disciplinary purpose-built town

Economic agglomeration is not the prime purpose of Lilongwe City. Rather, Lilongwe is expected to play a lead role in diplomacy, cultural exchange, business transactions and international conferences.

### (3) Industrial base

Lilongwe could be suitable for the promotion of the industrial sector. There would be opportunities on import substitution or export-led industries such as the high premium agro-industry. Such industries could make the best use of

the new economic corridor.

(4) Logistics base

Demand for transportation-related services, i.e. logistics, would be expected in the middle-and long-term perspective, when Lilongwe as a passing point in the Nacala Corridor, becomes the gateway to its neighbouring countries. The city would need an area for logistics services. Such new business could boost the economy of Lilongwe so that urban transportation and road development becomes the prerequisite for investment promotion of these industries / services.

### 7.3 Urban Development Strategy

- (1) Due to the present low density land use in the central areas of the Old Town and City Centre, urban concentration in these areas is expected to continue. This will positively benefit the efficient use of urban infrastructure and the realization of a low-cost and effective urban development. However, in case the city's population increases to more than two to three million after 2030, adverse effects of traffic congestion, for instance, will be serious, causing irreversible damage to urban activities. The planned dispersion of the new city centre in a satellite development should be discussed as the city's development strategy sometime after 2030.
- (2) In order to secure job opportunities and to accommodate increase in labour force, the business and commercial, manufacturing and logistics sectors should be enhanced. Expansion of the existing industrial land uses in the Kanengo area and new developments of the logistics / distribution industry along Nacala corridor, which is under development to serve as a South African Spinal Road, will contribute to the expansion of the formal sector employment in the city.
- (3) To diversify urban functions of Lilongwe City as the national capital, commercial and business zones of a high order should be developed through the utilization of vacant land in the central area and reuse of urban factories' plots after their relocation. *(need to specify how this could be achieved)* Development of an international tourism base near the international airport will be an opportunity to promote this diversified urban function.
- (4) Poor living conditions in Traditional Housing Areas (THA) and unplanned settlements should be upgraded to improve the urban environment in respect of urban amenity. Encroachment by unplanned settlements should be

controlled through strict land use and building construction management to constrain further expansion of the poor residential environment. Enhancement of building control measures through capacity upgrading of Lilongwe City Council before the urban infrastructure development, is necessary to limit the unplanned settlement and properly guide the planned urban settlement.

- (5) For the realization of eco-friendly urban development, which balances natural environment preservation and urban development, the existing greenery resources such as the nature reserves and waterfront greens in the central area should be strictly protected.
- (6) To support the living environment improvement and achieve economic growth in the City, infrastructure and utilities development should be accelerated.
- (7) To implement the development strategy above, capacity development of LCC in city planning, management, control on land use and building construction should be done.

#### 7.4 Urban Spatial Development

Based on the results of the current land use study, actual urbanization has not resulted in an even and independent growth of the four sector areas: i) Lumbadzi, ii) Kanengo, iii) Capital Hill, and iv) Old Town. On the contrary, the city's growth has been concentrated in two big economic centres (the Old Town and the City Centre).

The current urban expansion axis is now extending to the south, southeast, southwest and to the west since most residential areas are closely linked to the economic centres.

With reference to the future urban structure for Lilongwe City, the Cluster Shape Development was adopted as alternative of Urban Spatial Development.

In recent years, the cluster shape development is popular among urban planners in the world because it is suitable pattern for delineation of area on the selective development purpose and prevention of endless and indiscriminate extension of conurbation.

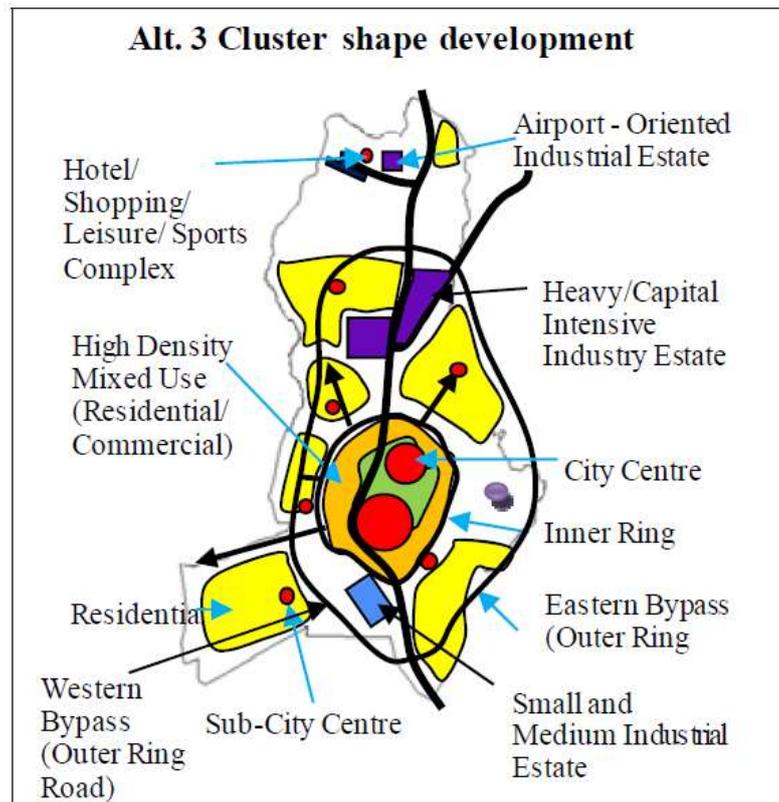


Figure 3 Future Urban Structure : Cluster Shape Development

Source: The Study on Urban Development Master Plan for Lilongwe, JICA, September 2010

## 8. Land Use Plan for 2030

8.1 Land use efficiency should be improved by introducing high –density commercial and business land use in the central area. Meanwhile, residential areas will absorb the increasing population not only in the central area but also in the adjacent vicinities. In between the different land uses, reserved and agricultural greens should be utilized as buffer areas, forming the cluster shape land use to achieve a balanced development with environmental preservation and economic / social development.

### 8.2 Spatial Composition of Future Built-Up Area in Lilongwe City

The built-up area in Lilongwe City forms an oval shape centring on the Old Town and the City Centre.

The built-up area clusters in Lilongwe City shall be surrounded and interspersed by greenery / open spaces (agriculture, forestry, natural open space). In the western side, the agricultural area of Areas 45 and shall be reserved between the

central built-up area and the south-western built-up area (Area 57, 58, etc.) In the south-eastern part, the grassland, forestry and natural open space, which currently exist outside Area 38, shall continue to remain as the boundary limit to prevent further expansion of the urban sprawl. Likewise, the greeneries of Area 44 and 54 shall serve as boundary to restrict urban sprawl in the eastern side. The greenery (forestry and agriculture) in Area 55, 25, and 54 shall likewise be reserved and intended to control urban sprawl. Surrounded and wedged by the greenery, each urban cluster's living environment shall be maintained in good condition.

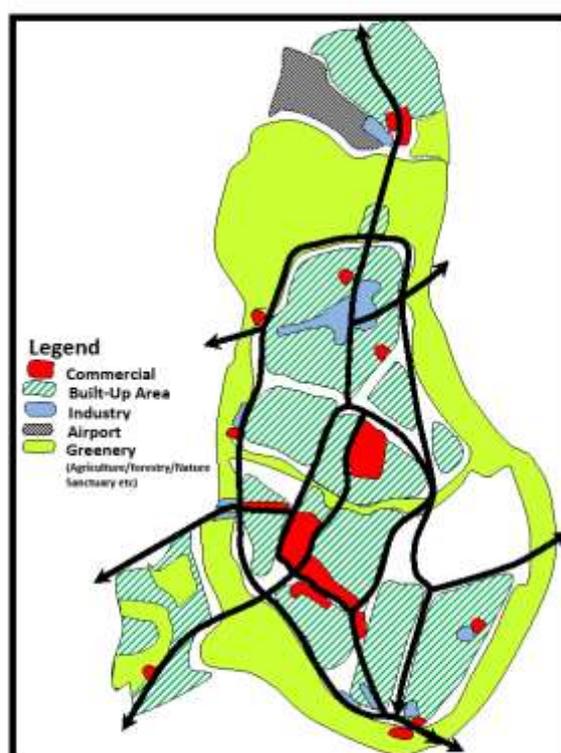


Figure 4 Spatial Composition of Future Built-up Area and greenery/Open Space

Source: The Study on Urban Development Master Plan for Lilongwe, JICA, September 2010

### 8.3 Land Use Plan for 2030

The jurisdiction area of Lilongwe City is to be enlarged in response to the urbanization progress (393km<sup>2</sup>→474km<sup>2</sup>). The land use planning area encompasses the future jurisdiction area of 474km<sup>2</sup>. The population is projected to increase by more than twofold (approximately 2.4 times larger). The urban land use area will also be increased in line with the population growth. Due to the densification effort, the increase in urban land use area shall be 11,300 ha (from 12,600 ha to 23,900 ha). Almost half of the planning area shall be used for urban land use purposes (residential, commercial, industrial and government), while the remaining half shall be preserved as greenery / open space. As a whole, the

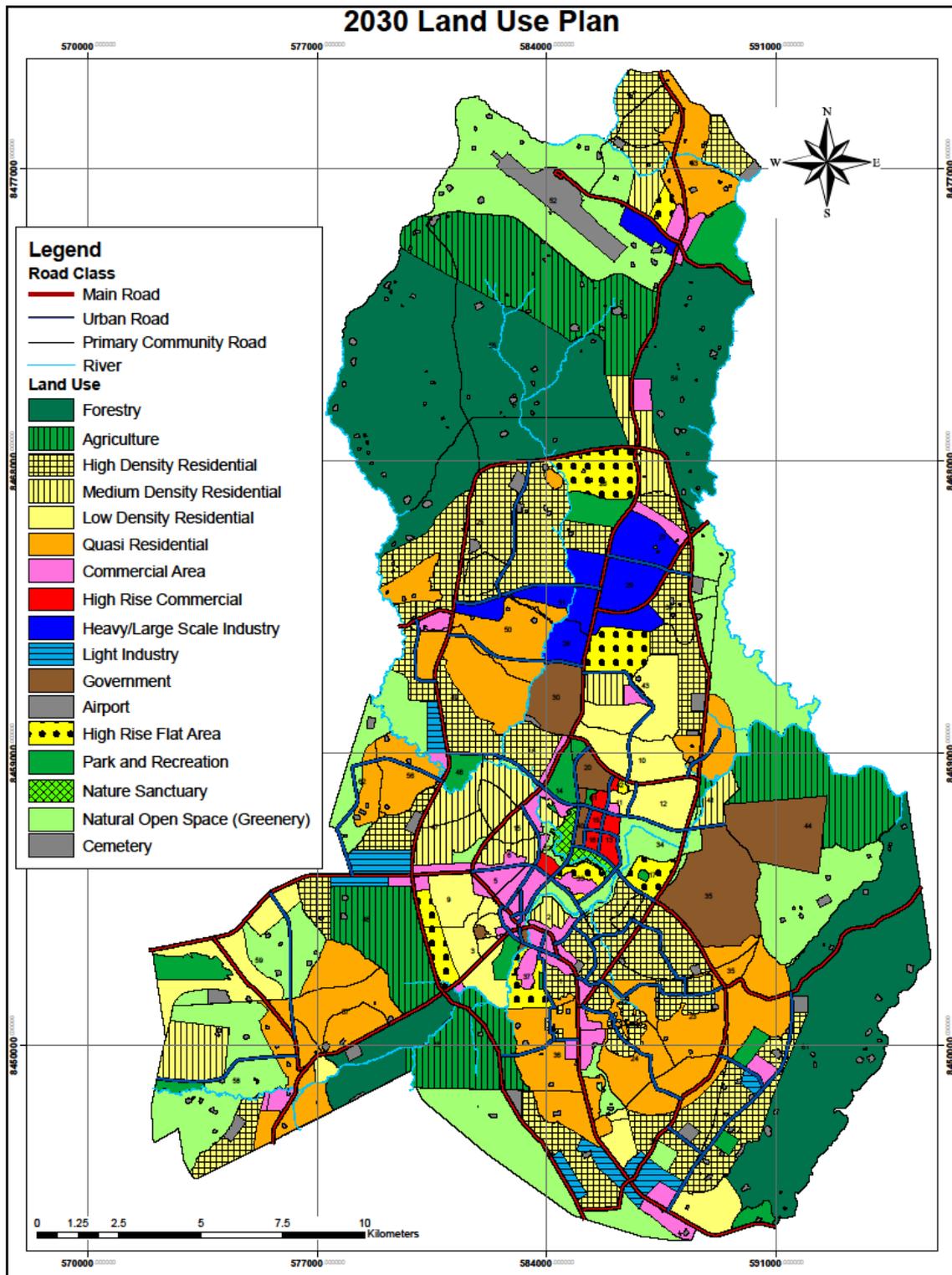
built-up area of Lilongwe City shall form an oval shape. The built-up area shall be surrounded and interspersed with such abundant greenery to achieve a physical cluster-shaped development, with due consideration of the environmental preservation aspect.

The 2030 land area by land use category is shown in the Table 5.

Table 5 Land Area Composition by Land Use Category in 2030

Land use category	Land area (ha)	Population	Average density (Persons / ha)	Normative Density (persons / ha)
Low Density Residential (LDR)	2,670	80,090	30	30
Middle Density Residential (MDR)	1,987	99,335	50	50
High Density Residential (HDR)	6,795	591,230	87	80-90
Quasi- Residential	6,171	600,047	97	90-100
High-rise flat area	1,155	80,876	70	70
Commercial	1,611	48,308	30	30
High-rise commercial	219	6,580	30	30
Heavy / Large scale industry	1,280	2,819	2	2
Light industry	616	12,311	20	20
Government	1,836	18,394	10	10
Airport	358	0	0	0
Nature Sanctuary	137	0	0	0
Park and recreation	1,149	0	0	0
Greenery / natural open space	6,840	0	0	0
Agriculture	4,309	11,583	3	3
Forestry	9,564	28,427	3	3
Cemetery	701	0	0	0
<b>Total</b>	<b>47,400</b>	<b>1,580,000</b>		

Source: The Study on Urban Development Master Plan for Lilongwe, JICA, September 2010



Source: The Study on Urban Development Master Plan for Lilongwe, JICA, September 2010

8.4 There are some changes from the land use categories from Lilongwe Outline Zoning Scheme 1986. The new zoning scheme in the 2030 land use plan is proposed based on the urban spatial development and the principles of spatial distribution of the 2030 population. The institutional measures for land use zoning should be modified in order to take up new urban development policies and directions.

## **9. Implementation (Development Scenario by Phasing)**

### **1) Phase 1 (~2015)**

Phase 1 is the significant period when the responsible organizations should arrange legal and institutional measures supporting the new zoning proposed in the 2030 land use plan. It is of great importance to conduct institutional improvements / developments in the early stage. It encompasses various aspects such as land registration, investment, promotion measures for foreign capital, industrial estates, housing bill, and regularization measures of unplanned settlements.

#### Spatial Development

**Residential area:** In order to accommodate increase the population (around 200,000), it will be necessary to develop new sub-divisions (2,840ha) for residential areas. It appears to have been prioritized for the up-market population (low density and medium density) rather than for those who can only afford low cost housing (high density). It should be realized that the housing policy and implementation projects for Lilongwe City should give more consideration to the urban poor.

**High-rise flat area:** High-rise residential developments shall be carried out in Areas 3, 9 and 17. The locations are regarded as highly potential area for urban development.

**Light/small industrial area:** It is essential to secure in advance land for industrial development. Otherwise, there will be the high risk for unplanned settlements to encroach on the land planned for industrial use. As much as possible, land acquisition for industrial land use will have to be done at an early stage. The 1<sup>st</sup> phase development for industrial purposes shall comprise 320 ha for heavy/large-scale industries and 220 ha for light/small –and medium –scale industries.

**Heavy industrial area:** Heavy/large-scale industries shall be expanded in Area 50 and 51.

**Central business district:** To date, light/small- and medium-scale industries are located mostly in the Central Business District (CBD). The Central Business Area should be developed towards amalgamation of commerce/financial services of high order. The light/small- and medium-scale industries shall be relocated from the CBD to the city border areas.

**High-rise commercial area:** Pilot projects of such urban redevelopment shall take place in some available lands in Areas 13, 16, 19, 31 and 32.

**Quasi-residential area:** Lilongwe City Council should set up sections / departments that are responsible for management of unplanned settlements. Secondly, the regularization measures for unplanned settlements shall be institutionally established. Thirdly, the new zoning category for quasi-residential lands should be launched in view of the improvement and upgrading of unplanned settlements into transition status.

## **2) Phase 2 (2015~2020)**

Phase 2 is the active transformation of the urban structure in Lilongwe City such as the urban road network formation including the completion of the inner ring road, improved intersections and more effective north-south and east-west links. This would propel changing the distribution of employment opportunities in various sectors and sub-sectors. It will also help optimize the person-trip distribution throughout the area and contribute to the reduction of economic opportunity cost.

This phase will also be the take-off to a diversified economic development. Most of the industrial estates shall be completed during this phase. Urban redevelopment projects for densification as well as for establishment of high-rise commercial areas shall be mobilized on a full-scale dimension.

Active private sector investments shall expand in Phase 2 of the designated areas (industrial zoning/ high-rise commercial zoning/ commercial zoning). The government shall take the initiative to accelerate attraction of foreign capital direct investment with the full use of investment promotion measures already introduced in Phase 1.

### Spatial Development

**Residential area:** During this phase, it is projected that the population will increase by approximately 190,000. To address this increase, housing development should

progress actively. It is estimated that around 1,820ha of residential area will have to be newly provided in Phase 2.

**High-rise flat area:** High-rise flat areas shall be increasingly expanded in Areas 3, 9 and 17, and a new development shall take place in Area 39. About 270 ha of high-rise flat area shall be constructed in Phase 2.

**Heavy industrial area:** Heavy/large-scale industrial estates shall be expanded in Areas 50, 51, 26 and 27. About 400ha of industrial estates shall be developed in Phase2.

**Central business district:** It is presumed that relocation of industrial factories and workshops from the Old Town will stimulate and mobilize business opportunities for its urban redevelopment. It will be very plausible that vacant lands to be created in the Old Town after relocation will likely have good potential for commercial and housing redevelopments, or mixed use. These urban redevelopment projects will be driven mostly by private investors as business ventures. In principle, the market mechanism of real estate will push through with these urban redevelopment projects. Some projects which may include public benefits or raise public concerns will be implemented under the initiative of the government, municipalities or semi-governmental institutions e.g roads, public recreational facilities, street lights, public toilet etc.

**Mixed use of high-rise flat/commercial area:** Densification of land use and economic vitalization shall be promoted with the progress of urban redevelopment projects. Some of them would be implemented in high-rise commercial areas, while others would be undertaken in the Old Town. These urban redevelopment projects will include various real estate developments such as i) high-rise office buildings; ii) mixed use of hotel/shopping mall/apartments; iii) high-rise residential towers, and iv) public facilities.

**Parks/ recreation areas:** Development of parks and recreation spaces shall be actively initiated as well. Harmonization of green space and buildings shall be pursued with the view of a beautiful cityscape.

**Quasi-residential area:** As rapid urbanization is unlikely to terminate, encroachment of unplanned settlements will persistently continue. It will be necessary to take responsive measures, i.e. transitional and step-by-step regularization through quasi-residential zoning.

### 3) Phase 3 (2020~2030)

The new urban structure will be completed in this phase. Lilongwe City in 2030 shall embody the four concepts; i) abundant greenery within the city; ii) efficient land use; iii) strengthening of Lilongwe economy through economic diversification; and iv) a compact urban land use.

A compact urban land use shall be achieved through establishment of high-rise commercial and residential zones, and mixed-use redevelopments in the central areas.

The twin-pole urban centre (City Centre and Old Town) shall be developed to become attractive as well as efficient locations in order to promote Lilongwe City as an internationally competitive city among neighbouring countries' capital cities. Simultaneously, comfortable living environment shall be maintained with the preservation of abundant greenery as well as creation of parks and recreational spaces.

A variety of industries will evolve and develop as a result of economic diversification efforts. In the aspect of physical development, heavy/large-scale industrial zones shall be fully established in Kanengo and light/small – and medium –scale industrial zones in the suburban areas.

#### Spatial Development

**Residential area:** During this phase, it is projected that the population will increase by around 420,000. In order to accommodate the population increase, new subdivisions of 3,670 ha will be necessary for residential areas.

**High-rise flat area:** As a new lifestyle emerges due to residents in high-rise flats in Lilongwe City, the sales of these flats will rise significantly in Phase 3. It will account for around 650ha.

**Quasi-residential area:** It is projected that the unplanned settlement growth pressure will continue even in Phase 3 because of continuous social migration from outside. To mitigate the persistent encroachment of unplanned settlements, it will be necessary to include 540 ha under the newly designated category of quasi-residential zoning. It shall undergo regularization and upgrading.

**Heavy industrial area:** With reference to heavy/large-scale industrial estates, the

remaining 100 ha will be supplied in Areas 50, 39 and 26. The effort of the supply side in Phase 3 shall be placed on sales promotion and attraction of direct foreign investment rather than physical development.

**Light/small industrial area:** In terms of industrial estates for light/small- and medium-scale enterprise, the remaining 100ha shall be provided in Phase3.

**High-rise commercial area:** In order to achieve full-fledged development for high-rise commercial establishments, many urban development/ redevelopment projects shall be implemented in Area 13, 16, 19, 31, 32 and 42.

Table 6. Phasing for Urban Development (- 2030)

Phase	1	2	3
Period	Now-2015	2015-2020	2020-2030
Characteristics	(1) Capacity Development (2) Institutional and legal arrangement (3) Information dissemination	(1) Transformation of urban structure (2) Taking-off to the diversification of economic development	(1) Completion of new urban structure (2) Maturing and approaching to the planning concept
Population Increase	Approx. 200,000 (674,448 → 972,000)	Approx. 190,000 (972,000 → 1,160,000)	Approx. 420,000 (1,160,000 → 1,580,000)
Expansion of Built-Up Area	4,900ha (13,042 ha → 17,959ha)	4,600ha (17,959ha → 22,589ha)	4,000ha (22,589ha → 26,549ha)
Housing supply	2,840 ha of new sub-division	1,820 ha of new sub-division	3,670 ha of new sub-division
New sub-division, low density	420 ha	350 ha	570 ha
New sub-division, Medium density	330 ha	350 ha	460 ha
New sub-division, High density	1,850 ha	850 ha	1,990 ha
New sub-division, High-rise flats	230 ha	270 ha	650 ha
Employment Increase	Approx. 110,000 (210,000 → 318,900)	Approx. 95,000 (318,900 → 414,200)	Approx. 226,000 (414,200 → 639,900)
Heavy / Large scale industry	320 ha (Area 50 and 51)	400 ha (Area 50, 51, 26 and 27)	100 ha (Area 50, 39 and 26)
Light / small-scale industry	220 ha (Area 38, 46, 47, 49, 60 and 61)	290 ha (Area 38, 60, 61, 46, 47 and 49)	100 ha (Area 38, 47, 60 and 61)

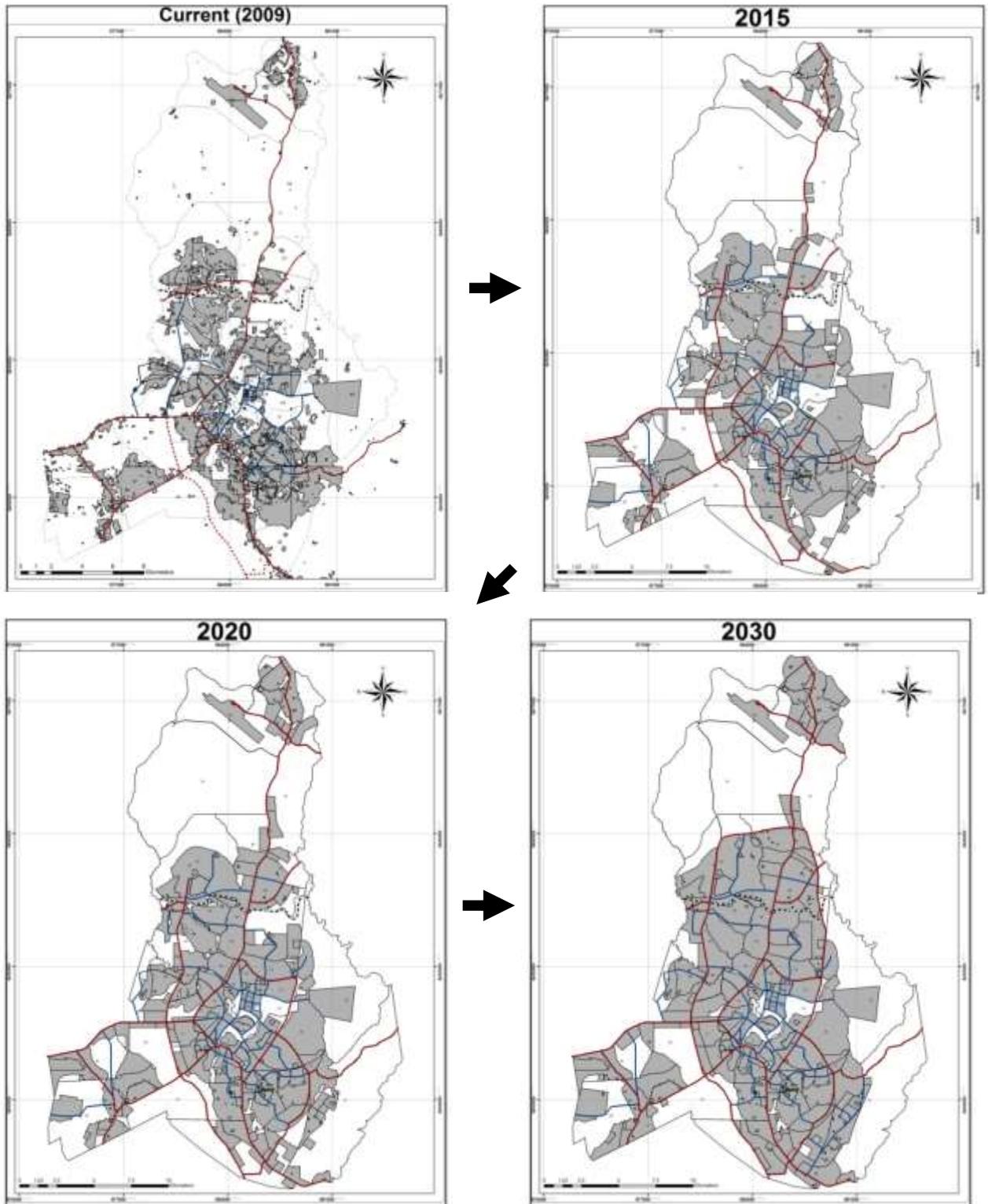


Figure6 Expansion of the Built-up Area (Urban Land Use)

## 10. Land Use

### 10.1 Residential Land Use

10.1.1 The residential area for 2030 are comprised of i) low density residential area (LDR), ii) medium density residential area (MDR), iii) high density residential area (HDR), iv)quasi-residential area (QUR) and v) high-rise flat area (HRR) in Table 7 .

10.1.2 Urban housing in Lilongwe City is classified on the basis of BCR, FAR, plot size, height control and building line as describer in Table 7. The minimum land plot size for low density residential area is reduced from the current size regulation (2,000m<sup>2</sup>) to 1,000m<sup>2</sup> in line with the concept of efficient land use. All new housing will be designed as following regulations. They reflect the need to make better, more efficient use of urban land and infrastructure.

Table7 Housing type by each regulations

Type	BCR (%)	FAR (%)	Plot Size(m <sup>2</sup> )		Height Control *1	Building Line (m)		
			Minimum	Maximum		Front	Rear	Side
LDR	30	40	1,000	2,000	1-2	10	5	5
MDR	40	60	600	1,000	1-2	5	5	4
HDR	50	80	375	600	1-3	5	3	3
QUR	50	80	375	600	1-3	3	3	3
HRR	30	100	10,000	-	HRR(1)*2:3-4 HRR(2)*3:8-12 HRR(3)*4: 5-6	10	8	8

\*1 The number of stories allowed above the ground

\*2 HRR (1) : located in Area 3and 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 restrictions

\*3 HRR (2) : located in Area 17, 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 restricted to 8-to-12-storey restriction.

\*4 HRR (3) : located in Area 26 and 43. These areas are very near to industrial zones. The height control shall be 5-to-6-storey.

10.1.3 It is very difficult to prevent further expansion of unplanned settlements. It will be too optimistic and unrealistic to assume that immediate and comprehensive measures to prevent further expansion of unplanned settlements will be taken from now. Although there are efforts to eradicate unplanned housing activities, certain expansion remains foreseen.

10.1.4 The existing classification of residential land use into “traditional” and “permanent” seems to be the legacy of the colonial era. The term “traditional

housing area (THA)” is no longer appropriate for the urban residential area of the capital city in the 21<sup>st</sup> century. Furthermore, THA is not a statutory housing area so that it should be included in the planned housing area. In this context, such a legacy as THA shall be abolished. Residential land use shall basically be classified into three simple categories; 1) Low Density Residential; 2) Medium Density Residential; 3) High Density Residential.

- 10.1.5 In order to further promote densification and compact land use in the central area, a fourth category which is the “High-Rise Flat Area” shall be set up. This category is the area where multi-storey flat buildings are built. The High-rise flat buildings are promoted in the business centre areas.
- 10.1.6 With reference to unplanned settlements, it already is not recommendable that such a residential land use category be maintained in the 2030 land use plan map. The stepwise upgrading and legitimization of unplanned settlements would take the form of a transitional land use category in the process from unplanned to planned settlement. It will take considerable time to legitimize the current unplanned settlements. It is proposed herein to introduce a new category, “Quasi-Residential”. The term “Quasi-Residential” implicates an intermediate status between the unplanned and statutory housing areas.
- 10.1.7 **LOW DENSITY RESIDENTIAL AREA:** There is the whole area for low density residential area in Area 12. There are some areas in Area 3, 9, 10, 11, 38, 42, 43, 45, 59 and 61 in 2030.
- 10.1.8 **MEDIUM DENSITY RESIDENTIAL AREA:** There is the whole area for medium density residential area in Area 15. There are some areas in Area 2, 6, 14, 41, 43,47, 52, 54, 55 and 58 in 2030.
- 10.1.9 **HIGH DENSITY RESIDENTIAL AREA:** There are the most of areas for high density residential area in 7, 18 and 21. There are some areas in Area 1, 8, 22, 23, 24, 25, 26, 27, 36, 38, 39, 43, 46, 47, 49, 50, 53, 58 and 61 in 2030.
- 10.1.10 **HIGH-RISE FLAT AREA:** There is the most of area for high-rise flat area in 17. There are some areas in Area 3, 9, 26, 33, 37, 42 and 52 in 2030.

10.1.11 QUASI-RESIDENTIAL AREA: There are the most of areas for Quasi-Residential area in 36, 50, 56 and 57. There are some areas in Area 1, 22, 23, 24, 25, 35, 38, 43, 44, 49, 51, 53, 58, 59, 60, 61 and 62 in 2030.

## **10.2 Commercial Land Use**

10.2.1 The category of “Commercial” used to be the sole classification applied to commercial land use in the 1986 Zoning Scheme. In order to achieve a compact land use and to make the City Centre more efficient and attractive, the Master Plan has added another category called “High-Rise Commercial” where multi-storey buildings are concentrated. This zoning category shall be applied to the City Centre area.

10.2.2 The land use of the Old Town shall be regulated as commercial.

10.2.3 The adherence to compact land use allows both commercial and high-rise commercial areas to be mixed up with residential areas.

10.2.4 Industrial land use should be, in general, separated from the commercial area in the central part.

10.2.5 COMMERCIAL AREA: Areas for this category of development include Area 4, 5 and part of Area 1, 2, 3, 6, 8, 9, 11, 14, 22, 27, 32, 33, 36, 37, 38, 43, 46, 47, 49, 50, 52, 53, 54, 58, 60 and 61 in 2030.

10.2.6 HIGH-RISE COMMERCIAL AREA: Areas designated for high-rise commercial use include Area 13, 16, 19 and parts of Area 31, 32 and 42 in 2030.

## **10.3 Industrial Land Use**

10.3.1 The term “industrial” used to be the only category of industrial land use in the 1986 Zoning Scheme. In view of upgrading and diversification of industries, industrial land use shall be classified into two categories. One is “heavy/large-scale industries” located in the Kanengo area. The other is “light industries”.

10.3.2 The existing light industries in the Old Town should be relocated to other areas.

10.3.3 There is a need for a new type of industry focusing on the export-oriented or high-value added industries (i.e. cut flowers, fresh vegetables and fruits) in proximity with the Kamuzu International Airport.

10.3.4 HEAVY/LARGE-SCALE INDUSTRIAL AREA: There are the whole areas for heavy / large –scale industrial area in Area 28 and 29. There are some areas in Area 26, 27, 39, 50, 51 and 52 in 2030.

10.3.5 LIGHT INDUSTRIAL AREA: There are some areas for light industrial areas in Area 38, 46, 47, 49, 60 and 61 in 2030.

#### **10.4 Governmental Land Use**

10.4.1 Government institutions use sizable land. For instance, the land area of the State House in Area 44 accounts for approximately 555 ha. The Capital Hill is comprised of a complex of national governmental institutions. It substantially occupies a large size of land in Area 20. Meanwhile, the police headquarters is located in Area 30. The Master Plan accorded a specific category to such land where governmental institutions are concentrated in the future. This is primary because development and building control is easily applied to such a specific zoning. Nevertheless, Area 35 where the military base and logistics are concentrated should be limited to military activity land use.

10.4.2 The following areas have been reserved for government use areas in Area 40. Government land takes much of the land in Area 30, 35 and the parts of Area 3, 20, 31 and 44 in 2030.

#### **10.5 Open Space / Greenery Land Use**

10.5.1 Land use for open space and greenery are comprised of the following five sub-categories 1) Natural Sanctuary, 2) Park and Recreation, 3) Greenery / Natural Open Space, 4) Agriculture and 5) Forestry.

10.5.2 Lilongwe City boasts of the existence of a Natural Sanctuary in the very central location of the city. This should be preserved and maintained for future generations.

10.5.3 Creation of parks and recreation spaces in residential and commercial areas

contributes to the improvement of urban amenity. Some parks have been planned by LCC sometime back. However, these have not been developed yet due to financial constraints though areas are secured except for Area 49 open Space. Therefore, these parks shall be reserved and designated as park and recreation land use and should be developed for the use of the citizens as an open space for greenery, recreation and relaxation.

Table 8. List of Parks

No.	Name of Park	Location	Area (ha)	Park Classification
1	Area 10 Open Space	Area 10	5.0	Neighbourhood park
2	Area 18 Open Space	Area 18	2.0	Neighbourhood park
3	Area 28 Open Space	Area 28	3.0	Neighbourhood park
4	Area 49 Open Space	Area 49	1.0	Neighbourhood park
5	Paul Kagame Rd Park (1)	Area 4	3.0	Neighbourhood park
6	Paul Kagame Rd Park (2)	Area 4	0.2	Children's play ground
7	Tsoka Park	Area 4	10.0	Area Park
8	Biwi (Area 8) Open Space	Area 8	2.0	Neighbourhood park

10.5.4 Urban agriculture mainly consists of illegal farming practiced seasonally in open spaces in the city. Agriculture in the city is represented by commercial farms producing dairy and poultry products. Particularly, commercial farms are located in Area 45, 46 and a part of Area 44. It should be regulated agriculture land use for commercial farms in the future so that sizable parts of open space used for illegal farming can be used for other purpose such as parks and recreation, and forestry.

10.5.5 Afforestation is a pressing issue in Lilongwe City where rapid deforestation occurs. Afforestation brings not only environmental benefit but also other positive impacts such as water resource and landscape conservation. Moreover, it is important to reserve some parts of the land for future development. Forestry is an independent zoning and to be used for the purpose of reserving the land for future long-term development after the target year of 2030.

## 10.6 Water Bodies Land Use

10.6.1 Water bodies consist of rivers and wetlands. Many of wetlands are obstacles to

urban development and should be avoided in areas where this development takes place. There exist some wetlands in the central part and in the suburban areas. In case wetlands are very big and are connected with rivers, these are preserved as water bodies. The new zoning of water bodies indicates wetlands to be preserved.

## **10.7 Cemetery Land Use**

10.7.1 Cemeteries are scattered in Lilongwe City. There are a number of cemeteries in the City but some areas are poorly served and people have long distances to walk for funerals. There is need to reserve more land for additional cemeteries and these will have to be developed so that each of the major housing areas has a cemetery. More burial grounds will be needed as the City grows.

## **11. Transport**

11.1 Primary road network comprises of north-south axis (M1), inner ring road, outer ring road, Nacala corridor (part of the western bypass), radial roads and the Kamuzu International Airport (KIA) access road. The inner ring road connects with M1 and other main roads serving the high accumulated commercial / administration areas in the central business districts (CBD). The outer ring road serves industry-related traffic and avoids passing through the main built-up area of the City.

11.2 The development strategies for urban road network are presented the below;

- a) Expansion of traffic capacity of roads where traffic volume is expected to increase,
- b) Improve road network including missing links contributing to smooth traffic movement,
- c) Promote good accessibility to community centres with paved roads, particularly quasi-residential areas in order to facilitate redevelopment of such areas and generate employment opportunity there,
- d) Road network contributing to commercial /business activities in high density residential and commercial areas,
- e) Complimenting Nacala corridor development, and industrialization and tourism development.

11.3 Total length of road network consisting of main / secondary roads and urban roads

is currently 131 km in 2009 and could increase to 303 km in 2030. The road density shall increase from 0.3 km/km<sup>2</sup> (current land area: 393 km<sup>2</sup>) in 2009 to 0.64 km/km<sup>2</sup> (2030 land area: 468km<sup>2</sup>) in 2030.

Table 9 Road Development Length in the Target 2030 (Unit: km)

Road type	2009	2030				Total
	Existing	New Construction	Widening of road	Improvement	*No Investment	
Main / Secondary Road	18.6	43.1	35.3	18.2	61.7	158.3
Urban Road	65.1	25.5	29.0	36.7	25.2	116.4
Primary Community Road	47.4	1.0	0.0	19.5	23.7	44.2
Total	131.1	69.6	64.3	74.4	110.6	318.9

Note: \* No additional investment, operation-and –maintenance works required

11.4 The Lilongwe Town Hall (Glyn Jones) roundabout is the most serious bottleneck, exceeding the road capacity of M1 in the City. Accordingly, special attention shall be paid to M1 section from Kenyatta Road to Malangalanga Road.

11.5 Road maintenance and rehabilitation is one of the most important aspects in road development. The road condition should be monitored, and regular maintenance works are necessary to prevent road deterioration.

11.6 Transport development in the City would proceed in accordance with population increase and rise of consumers' income. Road congestion is expected to become severe in the future. The traffic congestion could cause a serious constraint on the urban socio-economic activities. In order to address the issue, public transport system should be developed through the following conditions;

- Shift from the current public transport system with mini bus operation to that using the large buses that would operate according to time schedule and designated bus stops,
- Introduction of exclusive bus lanes and Bus Rapid Transit (BRT) system for upgrading bus operation system.

It would be preferable to introduce a trunk line system operated by large size buses as a main public transport mode for the City. Prior to the implementation of the trunk bus system, road infrastructure shall be gradually improved in accordance with the City's development.

11.7 Freight railway transport plays an important role in long-distance trips and delivery of bulk cargoes. The sustainable and safety operation shall be carried out taking into account increase in demand for main commodities like maize, tobacco, and fertilizer. Railway shall be the possible transport mode for carrying passengers when rehabilitation work will be implemented between Salima and Nkaya section because it links the major cities.

11.8 The parking area is relatively scarce at present in the City. Moreover, the shortage of car parking areas causes a lot of cars parked on road sides along M1 in the Old Town. It is high time to construct parking areas especially in Old Town and City Centre.

11.9 Traffic safety shall be highlighted to avoid traffic accidents caused by increasing number of vehicles. In the City centre, pedestrians and vehicles should be separated. Traffic safety measures are necessary with respect to i) sign boards on traffic restriction, ii) installation of traffic signs, iii) road markings, iv) pedestrian crossing markings, and v) street lights to maintain safety during night time.

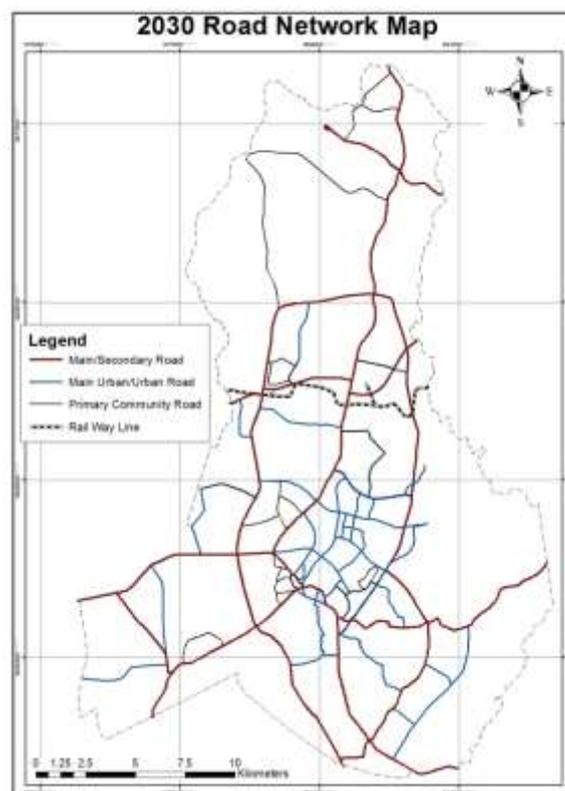


Figure 7 Road Network in 2030

## **12. Water Supply**

- 12.1 The Lilongwe Water Board (LWB) is responsible for providing potable water supply in the city of Lilongwe. The LWB is an executing agency under the Ministry of Irrigation and Water Development (MIWD) and reports both to MIWD and Comptroller of Statutory Bodies (CSB) under the Office of the President and Cabinet. LWB also works closely with Lilongwe City Council. LWB, as a utility provider, was established in 1947 and later constituted as a Statutory Corporation mandated to serve the city of Lilongwe and its surrounding peri-urban areas as prescribed (from time to time) by the Honourable Minister (of MIWD) in accordance with the provisions of the Waterworks Act No.17 of 1995. Lilongwe Water Board By-laws (1991) is an extension of the Waterworks Act.
- 12.2 The LWB claims that the water supply coverage was about 75% of the city population in 2009. People without access to LWB water use tube well, borehole, or unsafe source like river or unprotected wells. The primary target of the current Plan is to cover the entire city population by the target year of 2030 except people living in indigenous villages located in agriculture and forestry zones. These villages are scattered and providing piped water supply is not feasible from technical and economic justification. These villages should continue using groundwater.
- 12.3 In the planning target area, services will be provided through mixed service types, similar to the current practice, which include house connection, yard connection or kiosk. More priority is given in providing the population with safe water supply system than improving the service level.
- 12.4 In principle, the current water supply master plan (Third Lilongwe Water Supply Plan, YLWSP prepared by Safège for LWB with WB finance, 2002) will serve as the basis of the future plan. After due consideration of the available water resources in Lilongwe City and its adjoining areas and the required future demand, surface water is proposed to be utilized as the main water source for the city. However, it is still required to develop the groundwater resource in order to supplement the demand especially for isolated villages and for limited industrial purpose. In this context, a management program to attain sustainability is necessary.

- 12.5 Non-Revenue Water (NRW) reduction should be given prime importance before the development of new water supply infrastructure. An assets management program and rehabilitation will be necessary to tackle NRW issues, both for physical and management losses.
- 12.6 Production and treatment capacity will be developed stage-wise, based on the financial and management capacity of LWB.
- 12.7 The maximum planned water supply volume from the two existing dams is 85,000 m<sup>3</sup>/ day. The shortfall in 2030 will be 125,000 m<sup>3</sup> / day, for which new sources need to be secured. Similarly, the combined installed capacity of the two existing water treatment plants is 95,000 m<sup>3</sup>/ day, making the shortfall in 2030 to be 115,000 m<sup>3</sup> / day, for which a new Water Treatment Plant needs to be constructed.
- 12.8 To achieve the target of 100% coverage ratio, facilities such as 201,000 new service connections and 2,550 new kiosks must be provided. Adequate distribution plan is also required to sustain these new connections, including new service reservoirs and booster pumps.

### **13. Sanitation and Sewerage**

- 13.1 Lilongwe City Council is responsible for providing sewerage and sanitation services in Lilongwe City. The main legal authority comes from the Public Health Act (34:01) of 1969. Part X of the Act (Article 78 to 95) mentions that it shall be the duty of local authority to provide sewerage and drainage for its administrative area. However, the National Sanitation Policy of 2008 recommends that the sewerage service should be transferred to the Water Boards. Water Works Act 1995 also designates Lilongwe Water Board as the responsible organization for both water supply and sewerage system. There is no specific plan when this merger will take place. So until that happens, LCC will remain responsible for providing sewerage services to its administrative area.
- 13.2 Although the National Statistics Office reported that 80% (NSO, 2007) of the population of Lilongwe City is receiving sanitary wastewater treatment services, the actual rate is 30% on the basis of the WHO standard. Out of this 9% of the population have access to piped sewer service while 20 % use specific tank as

on-site sanitation measure. In addition, there are very few ventilated improved pit (VIP) latrines, which are considered as safe sanitation method. The commonly available pit latrines in Lilongwe are not safe sanitation measures as they lack ventilation or water seal.

13.3 Population density is the key parameter in determining the appropriate level of a sewage disposal system. Low population density areas should be excluded from the sewerage service area, which is predominantly applied to the high population density area. Development of sewerage system in the populated area is technically viable because of the effective collection of much wastewater and expansion of service coverage area. Wastewater generated in a low density area can be managed through on-site systems (septic tanks) at a much lower investment with equivalent health benefits. For populated areas where water supply is not available as house connection or where the present sanitation system is unsafe latrine, an intermediate system of sanitary latrine is proposed.

13.4 The sewerage system is planned based on a mix of the new sewerage system and existing facilities. Current facilities shall be rehabilitated for maximum utilization of current assets.

13.5 In 2030, 98% of population will have access to safe sanitation by sewer, septic tank and sanitary latrine. Wastewater generation in 2030 is estimated at 121,000 m<sup>3</sup> / day for the sewerage system and on-site technologies like septic tanks (6%) and sanitary latrines (38%).

#### **14. Solid Waste Management**

14.1 The Lilongwe City Council has the overall responsibility for the management of all wastes that are generated within the City's boundaries. The main legal authority comes from the Public Health Act (34:01) of 1969 Article 60 of the Law mentions that it shall be the duty of local authority to keep its administrative area in clean and sanitary condition. More specific legal provisions are made under Local Government Act 1998 through the General Cleanliness and Solid Waste Management By-Laws 2002.

14.2 The current collection rate of waste (as of 2009) is 30% in terms of city average. LCC collects wastes from households in the low and medium density housing

area, meanwhile the LCC periodically collects wastes through communal waste bin in the high density permanent housing areas. In the THA / informal settlement areas, no regular service for waste collection is done by LCC and illegal dumping is observed. The low collection rate of wastes should be urgently improved.

14.3 It is assumed that the collection rate will be improved to 100% in 2030. A new landfill site (final dumping site) will be necessary after 2025 when the present disposal area (25ha) in Area 38 is fully used up.

14.4 It is necessary at first to improve regular waste collection services to all households in its jurisdiction in order to conduct proper solid waste management.

## **15. Development Control**

15.1 The local government functions are established under the Constitution of Malawi which is the supreme law in the country. The development agenda is coordinated through district administration by the 28 district councils and a total 12 town and city councils under the Local Government Act. Under this Act, the local councils are required to prepare development plans as bases for development and budgeting. The development plans is a mandatory responsibility to guide development in the local councils while the local councils are allowed to prepare their own development plan under the Local Government Act. However, the physical development plan is a spatial development plan which is prepared under the Country and Town Planning Act and implemented through various legislation and specially instituted communities.

15.2 In connection with the issue of urban development management, land use control is regulated by the 1986 Outline Zoning Scheme and relies on the Planning Standards and Guidelines (1986). Building Control is regulated by the Building Bye Law (1961). The significant issue in land use control has been the limited enforcement of the City Council to regulate land use changes in the Old Town sector and illegal sub-division of land conducted by traditional chiefs in peripheral areas such as Chinsapo, Likuni and Njewa. This could be attributed to insufficient level of development control conducted by the City Council. Building permission still relies on the obsolete Building Bye Law which the City Council should review urgently.

- 15.3 Greater Lilongwe could be the expected expansion of administrative boundaries as a result of urban population increase. The land use plan encompasses parts of Lilongwe and Dowa districts. In the future, the boundary of the city could change based on the further expansion of city areas. The inter-district coordination is an important aspects of planning until such time that the changes in the city boundary are recognized.
- 15.4 The Outline Zoning Scheme (1986) was complimented by the Planning Standards and Guidelines (1986). The old zoning standards and guidelines are difficult to adapt to the land use plan proposed in the Master Plan so that planning standards and regulations should be improved to incorporate population<sup>s</sup>, increase, urban sprawl and patterns of economic development prescribed in the Master Plan. New planning standards and guidelines shall be formulated to incorporate the proposed land use plan.
- 15.5 Lilongwe is the Capital City of Malawi so the Planning Committee is concerned that new development should be of a high standard.