







#### REPUBLIC OF MALAWI MINISTRY OF WATER AND SANITATION

### **PROJECT:**

CONSULTANCY SERVICES FOR THE DEVELOPMENT AND PREPARATION OF AN URBAN STRUCTURE PLAN FOR BLANTYRE CITY COUNCIL MW-MOAIWD-307014-CS-QCBS



# DRAFT BLANTYRE URBAN STRUCTURE PLAN 2024 - 2039

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# REPORT CONTRIBUTORS AND ACKNOWLEDGEMENTS

This will be included in the final report.

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### ACRONYMS AND ABBREVIATIONS

AC	Asbestos Cement
ASL	Above Sea Level
AIDS	Acquired Immunodeficiency Syndrome
ArcGIS	Aeronautical Reconnaissance Coverage Geographic Information System
CLA	Africa Logistics Company
AfDB	African Development Bank
AGOA	African Growth and Opportunity Act
AU	African Union
BADEA	Arab Bank for Economic Development in Africa
AutoCad	Auto Computer-Aided Design
BT	Blantyre
BCA	Blantyre City Assembly
BCC	Blantyre City Council
BDC	Blantyre District Council
BUSP	Blantyre Urban Structure Plan
BWB	Blantyre Water Board
BAT	British American Tobacco
BCR	Building Coverage Ratio
B2C	Business to Consumer
CO <sub>2</sub> e	Carbon Dioxide Equivalent
CBD	Central Business District
CEAR	Central East African Railways
CCODE	Centre Community Organization and Development
CEPA	Centre for Environmental Policy and Advocacy
CEO	Chief Executive Officer
CHAM	Christian Health Association of Malawi
CSOs	Civil Society Organisations
COMESA	Common Market for Eastern and Southern Africa
COVID-19	Coronavirus Disease - 2019
CLN	Corridor of Nacala
m³/day	cubic meters per day
m <sup>3</sup>	cubic metre
$^{0}C$	Degrees Celsius

CDA	Department of Civil Aviation
DoDMA	Department of Disaster Management Affairs
dia	Diameter
DRM	Disaster Risk Management
DMA	District Metered Areas
du/ha.	Dwellings units per hectare
EAPP	East Africa Power Pool
EMIS	Education Management Information Systems
EC	Electrical Conductivity
EGENCO	Electricity Generation Company
ESCOM	Electricity Supply Corporation of Malawi
e - Government	electronic Government
ECGs	Enabler Coordination Groups
EMA	Environmental Management Act
EHP	Essential Health Package
EC	European Commission
EIB	European Investment Bank
EBA	Everything But Arms
FIFA	Fédération Internationale de Football Association
FSDS	Financial Sector Development Strategy
FY	Financial Year
FCB	First Capital Bank
FDH	First Discount House
FMB	First Merchant Bank
FAR	Floor-Area Ratio
FAO	Food and Agriculture Organisation
FC	Football Club
FDI	Foreign Direct Investment
GIS	Geographic Information System
GWh	Gigawatt hour
GoM	Government of Malawi
GDP	Gross Domestic Product
GVA	Gross Value Added
HSSP	Health Sector Strategic Plan

ha	hectares
HIV	Human Immunodeficiency Virus
HR	Human Resources
IPP	Independent Power Producer
ICT	Information and Communication Technologies
IHS5	Integrated Household Survey 5th Report
IMIS	Integrated Management Information System
IRP	Integrated Resources Plan
IDA	International Development Association
IFC	International Finance Corporation
ILO	International Labour Organisation
ISO	International Organization For Standardization
ITA	International Trade Administration
JICA	Japan International Cooperation Agency
KUHeS	Kamuzu University of Health Sciences
KPAs	Key Priority Areas
Kg	Kilogram
Km	Kilometre
kPa	Kilopascal
Kt	Kiloton
kV	Kilovolt
kWh	kilowatt hour
Κ	Kwacha
LFPR	Labour Force Participation Rate
	Land Use Planning and Development Management Guidelines and
LUPDMGS	Standards
LFO	Light Fuel Oil
LCD	Litres per Capita
LPCD	litres per capita per day
LAN	Local Area Network
LGFC	Local Government Finance Committee
LV	Low voltage
Μ	Main Road
MW	Malawi

MBR	Malawi Building Regulations
MDC	Malawi Development Corporation
MERA	Malawi Energy Regulatory Authority
MGDS	Malawi Growth and Development Strategy
MHC	Malawi Housing Corporation
MWK	Malawi Kwacha
MK	Malawi Kwacha
MS	Malawi Standards
MUBAS	Malawi University of Business and Applied Sciences
MWSP-1	Malawi Water and Sanitation Projetc-1
MV	Medium Voltage
MVA	Megavolt amperes
MW	Megawatt
MWh	Megawatt-hour
MW	Megawatts
MP	Member of Parliament
m	meter
MSME	Micro, Small and Medium Enterprises
mg/l	milligrams per litre
mm	Millimetre
MLH	Ministry of Lands and Housing
Mod AASHTO	Modified American Association of State Highway and Transportation Officials
Mt.	Mount
MIGA	Multilateral Investment Guarantee Agency
NAP	National Agriculture Policy
NBM	National Bank of Malawi
NEP	National Energy Policy
NES	National Export Strategy
NIP	National Industrial Policy
NPDP	National Physical Development Plan
NPC	National Planning Commission
NSO	National Statistical Office
NUP	National Urban Policy

NGO	Non Governmental Organisation
NRW	Non-Revenue Water
CDN	Northern Development Corridor
ND-Gain	Notre Dame-Global Adaptation Initiative
OEC	Observatory of Economic Complexity
O&M	Operation and Maintenance
OECD	Organisation for Economic Cooperation and Development
OPEC	Organization of the Petroleum Exporting Countries
PA	Per Annum
PCGs	Pillar Coordination Groups
PESTEL	Political, Economic, Social, Technological, Environmental, and Legal
pН	potential of Hydrogen
PPI	Producer Price Index
PDO	Project Development Objective
PPP	Public Private Partnership
PTR	Pupil/Teacher Ratio
PpCR	Pupils per Classroom
QECH	Queen Elizabeth Central Hospital
RPEL	Recycling Plant and Engineered Landfill
R&D	Research and Development
SAPP	Southern Africa Power Pool
SADC	Southern African Development Community
Km <sup>2</sup>	Square Kilometre
m <sup>2</sup>	Square Meters
sq m.	Square Meters
mm <sup>2</sup>	Square Millimetres
Std.	Standard
SFAs	Strategic Focus Areas
SWOT	Strengths, Weaknesses, Opportunities, and Threats
SCADA	Supervisory Control and Data Acquisition
SS	Suspended Solids
SDGs	Sustainable Development Goals
ТА	Technical Assistance
TNM	Technical Manual

Unicef	The United Nations Children's Fund
TDS	Total Dissolved Solids
THAs	Traditional Housing Areas
TOD	Transit Oriented Development
UNCTAD	United Nations Conference on Trade and Development
UN-HABITAT	United Nations Human Settlements Programme
USP	Urban Structure Plan
US\$	US Dollar
VfM	Value for Money
VAT	Value-Added Tax
WWTW	Wastewater Treatment Plant
WASAMA	Water Services Association of Malawi
WTP	Water Treatment Plant
WB	World Bank
WHO	World Health Organization

# **1 FOREWORD**

# **2 EXECUTIVE SUMMARY**

# **3 INTRODUCTION AND RATIONALE**

# 3.1 REVIEWING THE 2000 – 2015 STRUCTURE PLAN

The preparation of urban structure plans (USP) in Malawi is regulated by the Physical Planning Act, Act No. 17 of 2016. Part IV of the Act provides for the preparation of local physical development plans and it lists four types of such plans namely:

- an urban structure plan, which shall be a land use plan for the whole of an urban area;
- an urban layout plan which shall be a detailed land use plan for a part of an urban area in which significant physical development is planned or is likely to or have begun to take place;
- an urban civic plan, which shall be a more elaborate design of a special area or areas of an urban area showing layout of buildings, car parking lots and landscaping among other details; and
- a subject physical development plan, which shall be a plan concerned with a particular subject matter.

Local physical development plans are to include (a) a summary of the principal features of the plan; (b) a statement of the existing conditions of the place or area or subject matter with which the plan is concerned; (c) a statement on planning policies and proposals; (d) a statement on the relationship between the plan and the district physical development plan to which it would relate and any other local physical development plans adjacent to it; (e) maps and plans to show present and future land and transportation uses and the location of proposed developments; and (f) guidance on land uses for purposes of making decisions on applications for development permission.

The previous Blantyre Urban Structure Plan 2000 - 2015 was prepared in 1999 and adopted in 2000. It was based on the previous legislation and prepared on authority delegated by the Commissioner of Physical Planning to the Blantyre City Assembly.

The original Blantyre Planning Area Boundary was defined and 1949 and the Blantyre/Limbe Town Planning Committee was appointed. The first Outline Planning Scheme for Blantyre and Limbe was prepared in 1951. This plan was prepared for the municipalities of Blantyre and Limbe and provided for their amalgamation. An Outline Planning Scheme to cover additional areas incorporated into the city was approved in 1962. A major extension of the urban boundary in 1964 was done without the amendment of the outline planning schemes and this left a large area without planning and policy guidance. The first structure plan was prepared in 1976 and reviewed in 1978 and 1980. This version was used until the Blantyre Urban Structure Plan 2000 to 2015 was adopted.

# **3.2 PLAN RATIONALE**

From its status in 1949 with a population of 16, 408 inhabitants, Blantyre City has grown rapidly to a city with a population of more than 500, 000 inhabitants in 2000 when the outdated Urban Structure Plan was prepared. Since then, the population increased to 800 264 in 2018 while the 2023 estimated population stood at 883 556. At the same time daily migrants residing outside the city boundary flock to the city to work, sell produce or do business.

While the growth in population itself justifies the need to have a new Blantyre Urban Structure Plan (BUSP) to guide the various developments, the City has of late experienced vulnerability in a number of natural hazards such as floods and droughts which cause both instant and slow disasters to the city. In addition, emerging and contemporary issues reflected in national and international strategies and frameworks also need to be factored into the growth and management of the City.

While it is based on a review of the USP that expired in 2015, this plan replaces the 2000 – 2015 Blantyre Urban Structure Plan and is aimed at:

- Creating and maintaining a spatial and physical environment which will promote orderly and well- coordinated city development;
- Creating an urban environment which ensures the provision of adequate and suitable social services and facilities to meet present and future needs;
- Creating an urban system which promotes a vibrant urban economy;
- Facilitating both financial sustainability and environmental resilience;
- Promoting efficient management of urban growth through the creation and maintenance of the various elements of the urban structure; and
- Conserving and enhancing the quality of the city's built environment and preservation of buildings of historical and architectural significance.

Overall, this plan serves as an integrated decision making framework based on the best strategies to address the planning, development and sustainability challenges faced by the city.

# **4 SITUATION ANALYSIS**

The current situation in the city provides the focus of the plan – the challenges, problems and backlogs provide the clues for the main spatial and policy interventions required to make the city a better place for its residents to live in.

#### 4.1 URBAN PROFILE

#### 4.1.1 NATIONAL AND REGIONAL SETTING

As Malawi's second largest city, Blantyre serves as a major centre for commerce, industry, education, and healthcare, attracting people from across the country seeking opportunities and better livelihoods. Additionally, Blantyre's regional setting and connectivity positions it as a vital link in regional integration, fostering economic connections and cultural exchanges with neighbouring districts and countries.

Blantyre City is located in the Shire Highlands of Southern Malawi at an altitude of approximately 1 150 m above sea level. The city is surrounded by Blantyre, Thyolo and Chiradzulu districts and is located some 315 km south of the capital Lilongwe. The city is 240 km<sup>2</sup> in area.



Figure 1: Locality of Blantyre

Blantyre is located on the edge of the East African Rift Valley in a diverse topographical setting, encompassing both relatively flat areas and undulating terrain, as well as a network of small hills that surround it. Rivers and streams which drain the City's nine catchments form the core of the city's natural drainage system.

The two cities of Blantyre and Lilongwe maintain their positions as national centres. Zomba, the old capital city, has now largely become a university town and old centre of administration, serving a relatively small hinterland.

Blantyre is the oldest urban centre in Malawi. It was founded by the Scottish missionaries in 1876. The city was formed by the amalgamation of the two townships of Blantyre and Limbe in 1966. As the commercial and industrial centre of Malawi, with a distinct regional/national/international hinterland, Blantyre has experienced rapid growth and had been Malawi's largest city until 2008 when it was overtaken by Lilongwe the capital city. Although its population continues to grow (2.0% pa), it does so at a slower rate than Lilongwe (3.8% pa). Blantyre has and continues to play a key role in Malawi's economic development. As the country's main manufacturing and commercial centre for nearly 150 years, the city has been at the centre of Malawi's economic transformation. Blantyre's economy is based on retail and wholesale trade, construction, transport and distribution, motor vehicle sales and maintenance, agro processing and on services including tourism, finance and telecommunications. The informal economy is an important sector of the city's economy employing up to 18% of the city's population.

Blantyre has potential to expand its role not only as a national centre but also as a regional centre. Blantyre is the largest industrial and commercial centre between Tete and the Indian Ocean coast and is therefore becoming an important regional centre serving the northern part of Mozambique.

#### 4.1.2 NATURAL SETTING

The natural setting of Blantyre significantly influences the development and infrastructure of the city. The presence of varied topography, including hills and valleys, poses both opportunities and challenges for urban planning and infrastructure development. The steep slopes and rugged terrain also influences the construction of buildings and other structures. Furthermore, the natural setting has implications for drainage and water management. The presence of rivers and streams necessitates the development of effective drainage systems to prevent flooding during the rainy season.

The city's settlement layout is significantly influenced by the presence of numerous mountains, such as Ndirande, Bangwe, Soche Hill, Mzedi, Mpingwe, and Michiru. These mountains have shaped the accessibility, cost, and feasibility of transportation infrastructure, as well as the location and structure of settlements within the City.

Rivers serve as barriers to land transportation patterns and usually necessitate the construction of bridges. The river catchment areas form a natural drainage system. The seasonal rainfall gives rise to a type of vegetation known as tropical grassland or savannah. Built up areas, forest plantation, rain fed herbaceous crops and tree shrub savannah are the most common. The main mountains, such as Ndirande, Soche and Michiru, are designated forest conservation reserves. Currently, the vegetative cover is sparse or non-existent in some parts of the city due to population pressure as settlements have encroached the protected areas. Residential developments have mushroomed in the marginal conservation areas without land use planning or safer house building construction guidelines. As a result, life and property have had exposure to damaging natural calamities like landslides and flash floods caused by Cyclones Ana, Gombe and Freddy in 2022 and 2023 respectively.

Both the topography and geology of Blantyre City presents constraints to its growth as shown in Map 1 below. The hills that ring the city act as physical barriers to urban expansion. Despite experiencing considerable development on the lower slopes of the mountains, growth is predominantly funnelled through the gaps along the main roads leading out of the city. The city is intersected by numerous rivers and streams, which further complicate connectivity and hinder growth due to the lack of bridges and adequate transportation infrastructure. These physical barriers restrict the seamless integration of different areas within the city and limit the potential for further expansion.



Map 1: Topographical Constraints

#### 4.1.3 SPATIAL FORM OF BLANTYRE

The City of Blantyre is the oldest urban centre in Malawi and became a municipality in 1895 and a planning area in 1897 when a British Surveyor laid out the streets that form the triangle that now defines the core of the Blantyre CBD. The Limbe Township was founded in 1909 following the establishment of the railhead at Limbe connecting Nyasaland to the Indian Ocean with the town growing around the headquarters of the Nyasaland Railways. The two townships of Blantyre and Limbe were amalgamated in 1956 to form the Blantyre-Limbe Municipality later becoming the City of Blantyre in 1966. Limbe is located 11 km east of Blantyre. Limbe developed as a centre of wholesale commerce and over many years as the headquarters of Malawi Railways and Malawi's tobacco auction.

This vestige of colonial planning continues to define Blantyre's form where low-density highincome housing is still largely located around the CBDs with high density low income areas located on the outskirts of the city. This has implications for physical access to jobs and services especially for the urban poor. The high-density low-income areas of the city is where 70% of the City's population live but only account for 23% of all land zoned for residential purposes. This means that 30% of the city's population occupy 77% of the city's residential land with plot sizes reaching the order of 0.2ha.

The implications for density, spatial justice, costs of services and infrastructure provision are significant with this type of urban form. The very strict single use zoning in the city has resulted in inefficiencies and long travel distances to jobs and services. In the CBDs, the absence of residential uses coupled with insecurity and poor public transport has meant that the city and in particular the CBDs 'shut down' at the end of the 'working hours' depriving the city economy of many hours of potential productive economic activities.

Blantyre is expanding largely in an unplanned pattern in all directions from the core. Residential developments have mushroomed in the city peripheries of Mpemba on the Chikwawa road to the south-west, Chatha and Ngumbe off Chileka Airport Road and on both sides of the M1 road towards Lunzu to the north, Mapanga towards Njuli on M3 Zomba Road, beyond Bangwe-Banana off Robert Mugabe Road to Nguludi in Chiradzulu District to the east; and Mboma-Chiswe-Ndogolo-Chigumula off Thyolo road to the south-east. Some parts of protected areas including the hills and flood zones within the city have been invaded by squatters.

Weak planning enforcement is also influencing the city form. Many residential buildings in the low-density suburbs surrounding the CBDs (especially in Blantyre) have been turned into

offices contrary to the zoning regulations. This is depressing the office rental market in the CBD. This partly explains the almost stagnant physical growth of the CBD and the preponderance of low-rise buildings in the CBD.



Figure 2: Blantyre's current metropolitan structure

Figure 2 above indicates an almost inverse pattern to the traditional polycentric model. The Blantyre urban core consist of the two central business areas of Blantyre CBD and Limbe with a high intensity corridor linking the two. However, most of the low density suburban areas surrounds this core with the less affluent medium and low density suburban areas located further away. Following independence, more and more people came to desire city life and opportunities and had no option but to settle on the fringes of the already built-up areas. The planning agenda, in so far as there was one, served the masters and the peripheral development became "sleeper" towns for workers needed in the central business and industrial areas. Little if any emphasis was placed on the development of complete neighbourhoods with economic opportunities for those that lived there. Even institutional and social facilities were provided at a lesser rate than in the low density areas.

Key levers to influence the urban form namely density, land use mix, connectivity and accessibility were largely ignored. This led to the current situation where:

- The Blantyre and Limbe CBDs are virtually devoid of any high density residential development.
- This results in the CBDs being "dead" after business hours and it further contributes to urban sprawl. With no high density opportunities available in the CBD, residential settlement is pushed further out to the fringes.

- The high density areas are mostly found further away from the CBDs (except for the Chinyonga and Soche areas) yet those areas are not supported any form of formal economic and employment nodes.
- There is therefore a mismatch between higher density residential areas and areas of job availability or opportunities to establish MSME type businesses.
- The nodal structure (if one can speak of nodes) is undefined and concentrations of business activity is mostly based on the concentration of informal business in an areas defined as suitable by such business folk.
- There is no evidence of transit oriented development (TOD) principles being applied in the development of the city. In fact, the city is allowed to grow organically without much planning intervention. New development is almost exclusively unplanned.
- Densities are low at 8.95 households/ha. This low density is not suitable to support a public transport system, which requires densities of about 25 du/ha to be viable.
- The low densities, driven by the emphasis on "single residential" development where everybody lives at ground level linked to the virtual absence of high rise residential or mixed use development also contribute to urban sprawl.
- A substantial part of the city is covered with low density suburban development and singleuse zoning, which does not contribute to an integrated city form and reflects the legacy of colonial planning philosophy.

### 4.1.4 LAND USE CHARACTERISTICS

#### 4.1.4.1 Determinants and Constraints

The land use characteristics of Blantyre are influenced by a variety of factors that shape the city's development and growth. Major determinants include population dynamics, economic activities, infrastructure availability, environmental considerations, and urban planning policies. These factors interact to shape the spatial distribution of residential, commercial, industrial, and open space areas throughout Blantyre.

The Land (Amendment) Act 2022 categorises land as customary land or private land or public land, where;

- Customary land means land held, occupied and used in accordance with customary law.
- Private land means all land held by deed of title or leasehold by any person, company or institution. This includes lands which belong to private individuals, City Council, MHC and any other institution. The City Council generally exercises planning and development control over this land as well as levying property rates.

Public land is land gazetted for national parks, recreation areas, forest reserves, conservation areas, historic and cultural sites as well as land vested in Government as a result of uncertain ownership, abandonment or land that cannot be used for any purpose. Public land also includes Government land which refers to land acquired and owned by the Government but does not include a public road).

Blantyre is a mosaic of all these land categories and ownerships which raises a number of planning, land management and administration and development challenges. De jure, customary land does not exist within the city boundary. The Chiefs Act specifies that no paramount chief or any other chief has any jurisdiction over land in the city without the written consent of the city council. However, de facto, customary tenure exists and it is how the majority of those living in informal settlements acquired the land they live on. The chiefs play a role in the allocation of land in the de facto customary areas of the city (Chome, 2005). This situation in all urban centres arose because of the inability to follow through the provisions of the law.

The ubiquitous presence of customary land practices in peri-urban areas of the City has long been a challenge to the proper planning and development of Blantyre. Due to the failure of the formal land acquisition systems by the majority of the members of the public, especially the low income and now also significant proportions of the middle and upper income categories, land has been acquired through town chiefs and other landlords. Development of this land has generally not followed any approved plans and these areas have seldom been subject to development control by the city council. Although by law, town chiefs and related informal landlords do not have any mandates over land, they have continued to exercise this function which has led to the proliferation of unplanned settlements in and around the city.

Land encroachment is a serious problem. Public land and land with absentee landlords has been heavily encroached in many parts of the city. The problem of absentee landlords and land speculators has been addressed in the Land (Amendment) Act by requiring all holders of private land under freehold title to commence development of the land within two years from the commencement of the Act or risk voluntary surrender or entry by the Minister.

The multiple ownership and control of land coupled with a weak planning enforcement regime has made planning ineffective as decisions and actions by land owners do not always respect what is provided for in official plans. Furthermore, weak coordination mechanisms in the planning and development of the city has resulted in the major landlords becoming their own de facto planning authorities further creating planning and development 'chaos' in the city. The critical issue facing orderly growth of Blantyre is the fact that the city council does not have strategic land reserves in and around the city and nor do any of the current major landlords namely the Ministry of Lands and MHC. With the exception of the Chigumula area in the south of the city which is under the Ministry of Lands, strategic growth will have to be achieved through the acquisition of land in planned strategic growth areas of the city. The current growth directions of the city follow the main roads leading out of the city with the most significant growth being experienced in the Lunzu/Chileka area, then the Chigumula/Bvumbwe area, the Mpemba area and the Midima Road and Zomba/Chiradzulu roads area.

#### 4.1.4.2 Land Use Zones

The area of Blantyre City's jurisdiction is 24 000 ha in extent. The city accommodates several land uses as shown in Table 1: Land use categories in Blantyre - 2023 while the broad current land use in the city is shown in Map 2.
	Size in hectares					Total	
Ward	Residential	Business/ Industry	Institutional	Open Space	*Other	Sub-total	
Michiru	325.874	0.613	20.218	2.437	1221.339	1570.481	21404.311
South Lunzu	691.897	2.123	4.964	0.949	1622.801	2322.734	
Mapanga	213.136	4.114	24.369	1.035	1984.378	2227.032	
Mzedi	66.724	4.001	10.499	0.675	1897.694	1979.593	
Nkolokoti	312.914	29.408	61.807	43.169	814.208	1261.506	
Bangwe Ward	115.718	2.474	2.456	1.039	16.481	138.168	
Bangwe Mthandizi	186.646	15.499	5.898	32.181	40.156	280.380	
Namiyango	629.049	6.216	14.634	3.756	189.681	843.336	
Limbe Central	185.105	68.020	41.104	6.541	50.766	351.536	
Ndirande Matope	87.695	3.473	4.537	0.572	501.193	597.470	
Ndirande Makata	77.394	1.374	10.280	0.652	207.108	296.808	
Ndirande Gamulani	100.608	0.918	0.889	0.000	325.280	427.695	
Nyambadwe	431.965	9.389	34.102	0.000	176.867	652.323	
Mbayani	361.449	9.369	6.935	0.000	109.965	487.717	
Chilomoni	523.519	1.134	8.995	4.197	460.904	998.749	
Blantyre City	498.957	40.139	15.696	26.397	509.842	1091.032	
Blantyre South	463.068	5.072	19.888	19.585	119.468	627.082	
Soche East	143.431	13.820	88.675	23.403	153.487	422.815	
Green Corner	237.364	6.501	40.623	3.998	367.462	655.947	
Soche West	178.275	4.988	8.734	0.962	688.084	881.043	
Misesa	468.620	28.081	54.376	9.748	1148.897	1709.722	
Chigumula	219.177	0.249	1.090	0.680	1072.605	1293.802	
Namalimwe	66.442	21.085	40.182	4.824	154.80	287.34	
Business							
CBD	68.253					68.253 Ha	
Malls		-					
Industrial	Industrial						
Light Industries	224				726 Ha		
Heavy Industries	502						
Other	-						
*Other refers to: Land zoned for special land use, combined land use, municipal purposes & cemeteries.							

 Table 1: Land use categories in Blantyre - 2023



Map 2: Blantyre Land use - 2023

# 4.1.4.3 Industrial Areas

There are ten designated industrial areas in Blantyre namely Makata, Ginnery Corner, Maselema, Limbe, Chirimba, South Lunzu, Maone, Chitawira, Chigumula and Matindi. Of these Makata, Ginnery Corner, Maselema, Limbe, Chirimba and Chitawira are fully developed. Maone is partially developed while South Lunzu is unserviced and undeveloped. There are also smaller industrial centres at Bangwe/Mnthandizi, Mapanga, Chitawira, Manja, Chigumula and Chiwembe/ITG. The Makata Industrial Area is the largest industrial area in Blantyre.

Industrial area	No of plots	Status of development
Makata	300	Fully developed
Maone	293	Partially developed
Limbe	190	Fully developed
South Lunzu	118	Not developed
Maselema	105	Fully developed
Chirimba	73	Almost fully developed

Table 2:	Blantyre	Industrial	Areas
	•		



The Malawi Government has plans to establish an industrial park at Chigumula (22ha) in the south of the City and at Matindi in the northern part of the City to become the hubs for textiles, chemicals, electronics, leather, and also an agro-processing hub for food and beverages. The parks will be specifically designed to accommodate plots for factory shells suitable for small, medium and larger factories.

Figure 3: Location of main industrial areas

Makata, Limbe and Chirimba are classified as heavy industrial areas and are located along the railway line linking Blantyre to the sea and other parts of Malawi. Many of the industries in the heavy industrial areas were served by the railway and had rail sidings. The key industries

include shoe manufacturing, corn (maize) milling, brewing, soft drink production, baking, printing, and tobacco manufacturing.

The industrial structure of Blantyre is transforming with a shift from industry towards warehousing and from manufacturing to importation. Challenges to industrial competitiveness are intermittent power and water supply, high production cost, high cost of transport and a shift from rail to road, which has a major impact on the maintenance and quality of the city's road network.

The heavy industrial areas of the city account for 70% (502ha) of all industrial land in the City with light industries occupying 224ha.

### 4.1.4.4 Business Areas

Blantyre has two distinct first order commercial centres. These primary nodes are Blantyre CBD and Limbe CBD. The two centres are located 11 km apart and linked through the Chipembere Highway. The two primary nodes serve complimentary functions with commercial activity in Blantyre CBD concentrated in the financial, accommodation, restaurants and public administration. Limbe hosts the tobacco auction floors, the headquarters of the railways as well as an important hub for retail, wholesale, motor vehicle and construction sectors.

While Blantyre CBD has some high rise buildings, significant parts of the CBD and the whole of Limbe CBD are dominated by low rise commercial buildings. Most of the low rise buildings are generally old and in bad states of repair. Most roads are narrow and congested. This is compounded by a critical shortage of car parking spaces, further reducing the road space available for moving cars. The CBDs lack service lanes and where they exist, they are used for parking. The servicing of premises from streets further reduces spaces available for moving cars. Furthermore street trading which takes up pedestrian pavements along important CBD streets compound the problem of vehicle/pedestrian conflict.

There are virtually no sizeable second tier commercial centres in Blantyre. The two CBDs are linked through the Chipembere Highway which is a commercial and industrial corridor. The Chipembere Highway Corridor forms the heart of commercial activity with important centres at Maselema, Chichiri, Ginnery Corner and Christowick along the corridor. Chichiri has the largest shopping mall in Blantyre. The largest markets are located at Limbe, Blantyre and Ndirande.

While there are a number of sub urban centres in and around Blantyre, these are not generally well planned and cater mainly for daily convenience needs of the surrounding populations.

Both Blantyre and Limbe CBDs experience significant street trading. In Blantyre the key street trading streets are Haile Selassie Road, Mandala Road and Lower Slater Road as well as the areas around Blantyre Bus Stands and Wenela Bus Depot. In Limbe, street vending is more widespread encompassing almost all the CBD streets and side streets as well as the streets around Limbe Market. Roads next to roadside markets across the city also experience street vending including Chemusa, Mbayani and Chirimba in Blantyre and Kachere and Bangwe in Limbe. Map 3 provides the spatial detail.



*Map 3: Industrial and commercial areas in Blantyre* 17 | P a g e

## 4.1.4.5 Residential Areas

Blantyre's residential areas can be classified into 5 categories:

*Low density residential areas* feature large plots of up to 0.2 ha in extent. They are planned areas with permanent housing and high levels of service provision including access roads, individual water connections, water borne sewerage and electricity. These are generally residential areas for high income populations. Being the oldest areas, they are located closest to the two CBDs.

*Medium density residential areas* have plot sizes of up to 0.1ha and have the same high level of services as those in low density areas. Medium density areas generally cater for middle income populations. Such areas include New Naperi and Kanjedza Project.

*High density permanent residential areas*. Plot sizes of about 450m<sup>2</sup>. These are also well serviced and have traditionally been catering for the 'working class', being junior and middle level civil servants and other upper low income populations.

*Traditional housing areas* have similar plot sizes to high density permanent but with a lower level of service provision. The quality of housing is varied and includes those built with temporary building materials.

*Informal settlements* are unplanned areas developed without following any planning layouts or standards. This is where the majority of the low income population live. Housing quality is varied with a preponderance of houses built of temporary building materials. Service provision is very low. There is generally no tenure security. These areas include Misesa, Manje, Namiyango, Kachere and Nkolokoti in Limbe and Nancholi, Ndirande, Mbayani, Chirimba, Michiru and Chileka in Blantyre.

A process of gentrification is happening especially in high density permanent and traditional housing areas. The old informal settlements such as Ndirande have densified and consolidated and cater principally for the low income. The newer informal areas are such as Chileka and Michiru are increasingly being settled by higher income groups.

# 4.1.4.6 Open Space Systems

Although there is no discernible open space system in Blantyre with both public and private open spaces located in isolation, the City has a wide range of open spaces including conservation areas, public open spaces and parks as well as water bodies. The city's open spaces, lush vegetation, its broken and hilly terrain as well as numerous rivers that dissect the City make Blantyre a beautiful and attractive city. Sadly however, these are now under threat due to maintenance costs, weak policing of these spaces as well as uncontrolled informal commercial (vending) activities that are rife in some of these areas especially along the main highways and in the central areas. Deforestation of the mountains has been a very serious problem with many mountain slopes now bare or settled or used for cultivation. The main categories of open space are:

*Conservation areas.* The most important conservation areas are the mountain areas in and around the city notably Soche, Michiru, Nyambadwe, Ndirande, South Lunzu, Mzedi, Mpingwe and Bangwe. Another important conservation area is the Mudi Dam catchment.

*Water bodies.* Blantyre is crisscrossed by a number of rivers, the most important of which are Mudi, Nasolo, Naperi, Likhubula, Chirimba and Limbe.

*Public open spaces and parks.* Njamba is the largest public park in Blantyre (ha) but remains undeveloped as a park. Its central location, accessibility and size have the potential to make this the most iconic and significant public park in the city. The city's historic parks include Rangeley Park and Jubilee Park in Blantyre as well as Nkolokoti (Queens) Park and Boyd Park in Limbe.

*Cemeteries.* There are 3 classes of cemeteries. Class A cemeteries and Blantyre has only 2 of such cemeteries (Misesa and HHI) where the Council provides the services; Class B cemeteries where the residents provide the services but following the approval/instructions of the Council and where the Council can provide services only if hired. There are approximately 15 such cemeteries in Blantyre. Class C cemeteries are traditional cemeteries run by the owners. There are approximately 16 such cemeteries in the City. Some of the city's cemeteries such as Chitawira are full and others are fast filling up.

*Undeveloped/underdeveloped open spaces.* Blantyre has unique physical features including its ring of mountains and its rivers. These could be developed as ecological corridors to make them the hub of Blantyre's tourism development. Riverines present potential walking and cycling networks. The Michiru Mountain has a walking trail that has been developed for religious purposes and enables many people to walk up the mountain.

### 4.1.4.7 Public and Social Amenities

*Recreational and sporting facilities.* Blantyre has three stadia (Kamuzu, MDC and Chiwembe) and a number of sporting grounds namely BAT Ground and Upper Stadium. Kamuzu Stadium, built in 1955, is an old structure whose capacity has now been reduced to 20,000 for safety reasons. Other important recreational and sporting the Blantyre Youth Centre, the Blantyre

Sports Club and Limbe Country Club which host the Blantyre Golf Course and the Limbe Golf Course respectively.

*Education facilities.* With just under 500 primary and secondary learning institutions in the city, schools take up a very significant proportion of institutional land use. There are a number of tertiary institutions including MUBAS, KUHeS as well as private universities, a technical college and a teacher training college. A big problem is that land is acquired and developed largely for residential purposes and there are no mechanisms for securing land for public infrastructure such as schools. This explains why peri urban schools are the most overcrowded and under supplied.

*Health facilities.* The main public referral hospital (Queen Elizabeth Central Hospital) is located in Blantyre. Blantyre does not have a district hospital but land for such a hospital is reserved at Kameza. Blantyre has two private hospitals and 57 private clinics offering various services and located in various parts of the City. There are also a number of publically operated clinics offering mostly maternity and under five services as well as outpatient services. There are also two church run hospitals (Mlambe and Nguludi) outside the city boundary, which serve significant numbers of city residents.

### 4.1.4.8 Connectivity and Corridors

*Rail connections.* Blantyre is connected to Lilongwe and Zambia and to the Mozambiquean ports of Nacala in the east and Beira in the south through a narrow gauge line. The Beira Corridor is still undergoing rehabilitation in Malawi due to damage caused by cyclones.



### Map 4: Local and Regional Connectivity

*Road connections.* Roads are the primary means of transport within Blantyre and between Blantyre and other cities in Malawi and with other countries. Roads connect Blantyre to Mozambique, Zimbabwe and South Africa as well as to Zambia and Tanzania.

*Air connections.* Blantyre is served by the airport at Chileka – one of Malawi's two major international airports, the other being the Kamuzu International Airport in Lilongwe. The airport connects Blantyre to Lilongwe and to regional cities including Johannesburg, Dar es Salaam and Addis Ababa.

*Street network*. The M1 road is a dual carriage way from Limbe to Blantyre and is the largest capacity road in Blantyre connecting the major centres of Limbe and Blantyre. The only other dual carriage way in Blantyre is the Blantyre-Kameza Road via Magalasi. Blantyre roads suffer significant capacity constraints resulting in congestion especially in the major centres of Limbe and Blantyre and other hotspots such as Limbe Market. The one way traffic system introduced in Blantyre and Limbe has had limited success. While the main roads are generally in good condition, feeder roads as well as residential roads are in poor condition. Potholes are a common feature and many residential roads are unpaved rendering them difficult to drive on especially during the rainy season.

*Public transport.* Public transport is not well developed and has become chaotic ever since the liberalisation of the public transport sector in the 1990s. Public transport infrastructure is inadequate and in poor condition. The three main designated public transport termini in Blantyre namely Limbe Bus Depot, Wenela Bus Depot and Blantyre Bus Stands are not only in a state of disrepair but have become too small for the current volume of buses and minibuses.

### 4.1.5 DEVELOPMENT CONTROL AND LAND USE MANAGEMENT

Development control measures in Blantyre encompass various aspects, including land use zoning, building standards, setback requirements, height restrictions, and environmental considerations. These regulations not only influence the physical layout of the city, but also have implications for public safety, aesthetics and the overall quality of life for residents. The tools that operationalize development control include the Physical Planning Act 2016, Physical Planning Regulations, Land Use Planning and Development Management Guidelines and Standards (LUPDMGS), Malawi National Land Policy, Local Government (Blantyre City Council) By-Laws, Environmental Management Act 1996, Disaster Risk Management Act 2023, and the Public Health Act 1948.

Land use management is regulated by various instruments, including zoning ordinances, building codes, subdivision regulations, environmental regulations, and development permits. These controls aim to balance different land uses including residential, commercial, industrial, and recreational, in order to create a functional and harmonious built environment.

Zoning ordinances play a significant role in land use control by dividing land into different zones or districts and specifying the permitted uses, density, building height, setbacks, and other regulations within each zone. Building codes, on the other hand, ensure that structures are constructed safely and in compliance with structural, fire, and safety standards.

### 4.1.6 AESTHETICS AND URBAN QUALITY

The city's aesthetics and urban quality are shaped by a combination of historical influences, cultural heritage and contemporary design approaches. The city's architectural styles range from colonial-era buildings to modern structures, reflecting its rich history and cultural diversity. The integration of landscaping elements such as parks, gardens, and tree-lined streets, adds beauty and greenery to the urban fabric. Blantyre's cultural heritage, including its traditional arts, crafts, and festivals, contributes to the city's unique identity and sense of place.

Blantyre has a number of open spaces, some very prominent. The Chipembere Highway corridor reserve (both between and along the carriageways) and associated roundabouts have created open spaces that are of very good visual quality. Blantyre City Council has strived to maintain these spaces in good condition. The Rangeley and Jubilee Parks are strategically positioned but lack facilities and maintenance. They are underused by the public for these reasons and also because of poor security. The Blantyre and Limbe golf courses are of good visual and social quality and are properly maintained. The Mudi Dam catchment is an area of open space that is of environmental importance for the protection of the dam's catchment. Protection and maintenance, including landscaping of open spaces and parks is important to maintain the good visual and social quality of open spaces and parks.

Blantyre is blessed with scenic mountains, rivers and valleys. They form an important aspect of the cityscape which is characterised by a pleasant human scale complemented by lush vegetation in the mountain areas and other open areas that have not been destroyed by human activities. Blantyre has undergone extensive urbanisation which has resulted in the loss of protected areas and biodiversity as people settle, cultivate and deforest these areas. The most extensively encroached mountains are Soche, Ndirande and Bangwe/Mpingwe.

## 4.1.6.1 Building Heritage

Blantyre (founded in 1876) is the oldest city in Malawi. It predates the establishment of Harare, Lusaka, Johannesburg and Nairobi. Although many historical and built heritage resources have been lost over the years (one of the most significant being the Limbe Town Hall), the City is still endowed with a rich cultural and built heritage.

The threats facing the preservation of these monuments include lack of maintenance (which has put some of these resources in a state of disrepair), inappropriate renovations, lack of regular assessments, lack of documentation of resources and demolitions/redevelopments, and failure to implement the laws protecting monuments. Where monuments are not in active use, they become vulnerable to neglect. Some innovative attempts have been made to help in the preservation of some of the monuments. This has included the invitation of the private sector to adopt some of the monuments, as is the case with the Independence Arch at Chichiri and the Queen Victoria Memorial Hall.

### 4.1.6.2 Upgrading, Densification, de-Densification, Re-Purposing and Landscaping

Significant areas of Blantyre and Limbe CBDs in particular are old, having been developed before the 1980s. No new significant commercial areas have been developed since the late 1970s. New commercial developments have largely involved the redevelopment of commercial land in the existing CBDs. Many of the old buildings in the CBDs are small, substandard and low rise and mostly single storey, making for inefficient utilisation of prime land. Accordingly, significant areas of the CBDs lend themselves to redevelopment and an increase in the bulk factor in order to promote more high-rise buildings. The CBDs are devoid of trees and public open spaces. Greening of the CBDs and the creation of public spaces within the CBDs including pedestrianisation of some parts of streets will improve the ambience of the CBDs. While vertical expansion of the CBDs are required, horizontal expansion is also neessary to cater for future growth. In particular the Namiwawa residential area adjoining the Blantyre CBD to the west is a prime area for rezoning as part of the CBD.

The low density areas located closest to the two CBDs (Nyambadwe, Sunnyside, Namiwawa, Mandala, Mount Pleasant and Namiwawa in Blantyre and BCA Hill, Mudi and Mpingwe in Limbe) feature houses occupying large plots. Their proximity to the economic centres renders these areas suitable for densification, including through the development of flats in some areas.

The high density permanent residential areas, including Chiwembe, Kanjedza, Ndirande, Chinyonga, Manja, Chitawira and Nkolokosa, have housing that was developed mostly before the 1970s. Infrastructure and housing housing are old and in a poor state. These areas are in

need redevelopment and their location fairly close to the employment centres make them suitable for densification.

# 4.1.7 PRIORITY URBAN ISSUES TO BE ADDRESSED IN THE STRUCTURE PLAN

## 4.1.7.1 Land ownership, access and control

Taking advantage of the current land reforms, the plan should help position Blantyre City to resolve long outstanding shortcomings with regard to land ownership, access and control that has significantly contributed to the challenges facing BCC in the planning, administration and management of land. The plan should also address the institutional and regulatory frameworks that are critical for planning and development control of land and urban development.

# 4.1.7.2 Slum formation and urban sprawl

Slum growth is unabated in Blantyre. Improving the conditions in existing slums through slum upgrading and putting in measures to reduce the rate of slum growth will be one of the key issues to be addressed by the new BUSP.

A significant aspect of urban sprawl is that it is largely the middle- and upper-income groups that are developing houses in these areas. Recognising, formalising and planning of these areas will be important to ensure proper management.

# 4.1.7.3 Efficient Land Use and Sustainability

The urban morphology of the city is disjointed and densities are too low to make for efficient land use that can ensure financial sustainability and support the provision of public transport. The BUSP needs to find strategies to counter sprawl and increase densities to ensure the sustainability of the city.

# 4.1.7.4 Balanced Land Use Allocation

With the major portion of new development being unplanned, inadequate provision for land uses other than residential and business is made. This results in shortages of social services and facilities, open space, land for roads and space for utility services and facilities. This emphasises the need to gain control over planning and development in the city as a matter of utmost urgency.

# 4.1.7.5 Nodes

Lack of medium level commercial nodes has concentrated economic activity in the Blantyre-Limbe corridor leading to inefficiencies. The plan will need to identify strategic growth nodes in and around the city with the ultimate aim of creating medium level sub-nodes to take away some pressure from the primary nodes and increase opportunities for doing business within the neighbourhoods where they are located.

# 4.1.7.6 Connectivity and urban infrastructure services and utilities

The Plan must address strategic and improved connectivity for the city in terms of road conditions but also in terms of developing and improving strategic connections such as the eastern and western bypasses and improving connectivity between city sub-nodes and townships. Capacity improvements of strategic roads, planning for infrastructure services and utilities and coordination of policies will be necessary for the integration of land use and infrastructure. Currently land use is not being planned in an integrated way with infrastructure.

# 4.1.7.7 Public transport

Minibuses and taxis are the most common mode of public transport in Blantyre. This is largely unregulated, unsuitable and inefficient for a city with a population of nearly one million and growing. The plan must seek an efficient and effective public transport system for Blantyre to meet current and future public transport needs.

# 4.1.7.8 Review of the city boundary

The urban expansion that is happening in Blantyre is taking place principally just outside the current city boundaries and therefore outside its area of control. This will have implications for the proper planning of the city's future growth and may jeopardise its orderly growth prospects. The plan must also look at the linkages within the city's regional hinterland to ensure that it is properly set in its regional setting.

# 4.2 URBAN INFRASTRUCTURE SERVICES AND UTILITIES

4.2.1 WATER SUPPLY

# 4.2.1.1 Supply Responsibility

Blantyre Water Board (BWB) is a statutory body responsible for abstracting, treating and selling potable water to the population of Blantyre City and its surrounding areas. Its supply area includes the city and other areas outside the city boundaries such as Bvumbwe, Chileka, Lunzu, Chiradzulu, Limbe, and Mapanga. BWB estimates that it is supplying water to about 1.4 million people (projected based on 2018 population census), or about 66,822 individual connections, 813 water kiosks (for communal supply) and a further 3,000 commercial, industrial and institutional connections. According to the Water Works Act, BWB is also charged with the responsibility of establishing of public sewers and sewerage disposal works which are currently under the responsibility of Blantyre City Council. Generally, BWB's objective is to provide customers with a reliable and affordable water supply service while effectively contributing to the development of the national economy and the preservation of the environment.

### **Bulk Supply**

BWB abstracts its raw piped water from the Shire River and treats it at Walker's Ferry (built in 1963 and renovated in 1996) about 48 kilometres away from Blantyre City. Water is also sourced from the Mudi dam located within the city and treated at Mudi treatment plant, and from the Likhubula River located 55km from Blantyre City and treated at Nguludi treatment plant. BWB also abstracts ground water in Lunzu and Vumbwe. (Map 5)

BWB supplies 119, 000 m<sup>3</sup> per day from the various water supply sources despite having a cumulative design capacity of about 135,000 m<sup>3</sup> per day. Between 2016 and 2020, the bulk water supply averaged 89,000 m<sup>3</sup> per day. The actual rate of water production is around 67% of the design capacity due to the decline in water levels in the Mudi dam including Likhubula and Shire River. In particular, the actual water production at the Mudi WTP and Nguludi WTP are disproportionately low, amounting to 34% and 37% of the respective design capacities.



Map 5: Bulk water supply to the city

# Water Demand and Management

BWB is faced with a supply capacity challenge. The current daily water demand (135,000 m<sup>3</sup>) outstrips the production capacity (119,000m<sup>3</sup> per day). Projections show that by 2040, the daily demand will increase to about 230,000m<sup>3</sup>. Figure 4 provides the detail



Figure 4: Water Demand and Supply

The current three main water treatment plants namely Mudi, Walker's Ferry, and Nguludi, are all economically inefficient. Due to the geography of the supply area and the location of the water sources, BWB incurs significant operational costs to distribute water to its users. With additional booster stations required to distribute water throughout the hilly city terrain, approximately 96,000m<sup>3</sup> are pumped uphill each day from Walker's Ferry WTP through a 48-km pipeline to the city, overcoming the elevation of 800 m. As a result, 40% of operating costs is for electricity.

Water is rationed across most of the BWB's service areas. Eleven of the service areas in the suburbs have short water supply hours due to low water pressure and leakage. Nevertheless, the quality of water is according to standard.

### Non-Revenue Water

In general, NRW is composed of "Unbilled Authorized Consumption", "Apparent Losses (Commercial Loss)", and "Real Losses (Physical Loss)". Based on the definition of the International Water Association. **Error! Reference source not found.** Figure 5 shows the water balance sheet (average in 2020) of BWB.



#### Figure 5: Water Balance Sheet

Overall, BWB is characterized with high rate of Non-Revenue Water (NRW). With the exception of the Likhubula-Nguludi-Mpingwe water system, a large percentage of BWB reticulation equipment is old and is marked by illegal water connections and metering errors. The proportion of NRW is on the increased and stood at 54% in 2020.

In order to address the water supply challenges, BWB strategic plan goals include amongst others improvement to the reliability of bulk water supply, improved production, operations and data management, increasing customers from 60,000 to 100,000 connections, improving

customer satisfaction, reducing NRW from 53% to 30% and reducing electricity costs through development of alternative power sources.

# 4.2.1.2 The Reticulation System

BWB has an estimated storage capacity system of 97.3 million litres (97,317 m<sup>3</sup>) and manages a reticulation system of about 1407km and 23 reservoirs (of which 4 are clear water tanks). Map 6shows the coverage across the city. The management of the system is divided into three zones namely Limbe, Kabula, and Soche and services 91 areas, both within and outside of the Blantyre City boundary. As is clear in Map 6, coverage is comprehensive and the supply zones covers the entire city. However, there are households without access to piped water with 49.68% of households in the unplanned areas receiving water through community stand pipe.

According to the 2018 Census, 81.23% of households in the planned areas and 77.34% of households in the unplanned areas have access to piped water, either in the house, on the plot or in the form of community stand pipes.

Water is supplied for at least 19 hours daily in 76 of the 91 service areas which make up about 83.5% of the total areas serviced by BWB. Eleven of the service areas in the suburbs have short water supply hours caused by low water pressure and leakage control.

The condition of the reticulation system is poor and this contributes significantly to NRW. About 46% of the overall distribution networks are made up of asbestos pipelines. The pipes have largely degraded and have outlived their lifespans. This is further exacerbated by high pressures in some lines due to the extreme elevations of some reservoirs.

Maintenance of the system is underfunded and makeshift repairs contribute to the significant water losses from the system. Many water supply pipelines are shallow or left visible on the surface, including on top of road surfaces. These pipes have a very short service life because they are vulnerable to damage from traffic and other hazards. Vandalism to water infrastructure such as water meters and illegal connections by a large number of customers and water users further complicates the situation. Metering errors due to faulty meters as well as incorrect readings are also common. Map 6 provides the detail.



Map 6: Water Infrastructure in Blantyre

#### 4.2.2.1 Supply Responsibility

The City Council is mandated by the Local Government Act (2010) and the National Decentralization Policy (1998) to govern and manage the City. This includes all matters related to environmental management and sanitation. BWB is responsible for the provision of public sewers and sewerage disposal works, including the management of the wastewater system. However, BCC is currently responsible for the treatment, operation, and maintenance of the wastewater treatment plants and all reticulation infrastructure. The City's Engineering and Works Department is responsible for the maintenance and management of wastewater infrastructure.

#### 4.2.2.2 Sanitation Systems

The City provides a combination of onsite and off-site sanitation systems including sanitation services to some 547,500 people living in areas outside the city boundaries. Sanitation services within the city consists of both waterborne sewerage (flush toilets) and on-site sanitation facilities such as (ventilated improved) pit latrines. The majority of the population (about 67.6%) including those living in high density planned and unplanned areas (generally low-income areas, LIA) use on-site sanitation facilities, predominantly pit latrines and ventilated improved pit latrines. An estimated volume of 62 838 m<sup>3</sup> of faecal sludge (11 541 m<sup>3</sup> septic tank sludge and 51,297 m<sup>3</sup> pit latrine sludge) is produced annually by the population depending on on-site sanitation. The on-site sanitation method of wastewater treatment and disposal comprises a septic tanks system with associated soak away pit or infiltration trenches (25 %) and pit latrines (59 %). The city's off-site sanitation wastewater management system serves only 16 % of households and some industrial areas.

Blantyre is currently serviced by five wastewater treatment plants, namely; Soche, Blantyre, Limbe, Maone, and Chirimba. None of the treatment plants are adequately functional and Blantyre, Limbe and Soche are only semi-functional. Map 7 shows the location of the wastewater treatment plants and their intended service areas.



Map 7: WWTP Service areas

Since the 1990s there has been limited or no major investment in sewage management, operations or maintenance. Currently, three of the four plants (Blantyre, Limbe, and Soche) are only partially functional and are overloaded. Cumulatively, the wastewater treatment plants have a design capacity of 23,834 m<sup>3</sup> per day and a trunk sewer network of some 122.991 km. The trunk sewers of Mudi, Limbe, Naperi and Nasolo serve both industrial and domestic customers, while those of Chirimba only serves the Chirimba Industrial Area.

### 4.2.2.3 Summary Assessment

The overloading of the sewerage system, the high usage of on-site sanitation facilities, and the increased generation of solid waste, coupled with uncontrolled waste disposal from malfunctioning wastewater treatment plants, damaged sewer lines, the indiscriminate disposal of solid waste has resulted in heavy pollution of almost all the rivers and streams in the city. The heavy pollution of rivers and streams has led to odour production from decomposed waste and stagnant water, to the breeding of mosquitoes and other disease vectors, and to the loss of aquatic life and recreation activities. This contributes to a bleak general outlook of the city.

The current poor state of all wastewater works can be associated with the fact that the maintenance budget for sewer infrastructure is combined with the budget for wastewater treatment works. Most of the budget, however, is consumed on rectifying sewer spillages. Council officials are forced to respond to community complaints over sewer spillages, while little or no complaints about the actual wastewater treatment works are received. Accordingly, little or no maintenance occurs at the wastewater treatment plants. Minimal revenue collection, theft and vandalism, unplanned settlement, absence of scheduled maintenance, skill levels and poor enforcement of the quality of effluent discharged into the rivers also contribute to the poor state of affairs.

#### 4.2.3 SOLID WASTE MANAGEMENT

### 4.2.3.1 Supply Responsibility

The department of health and social services is responsible for waste management in Blantyre City. Generally, the department is responsible for the management of street cleansing, market cleansing, latrine desludging and emptying for both private and public customers, refuse collection and disposal and management of the Mzedi Dumpsite. The overall objective of the Cleansing Services Department is to "keep the city of Blantyre clean and tidy at all times and to provide a hygienic environment for the residents."

#### 4.2.3.2 The System

#### Waste collection and transport

Blantyre generates approximately 368 tons of waste daily, or approximately 134,320 tons annually. Approximately 80% to 90% of the waste generated in Blantyre is organic.

BCC operates routine daily street-cleaning operations in all major streets in the Limbe and Blantyre Central Business Districts (CBDs), including other roads entering the CBDs such as the Kapeni road, Kenyatta Drive, Chikwawa road, Tsiranana road from Maselema roundabout to Kachere market, Chileka road from Kameza roundabout to Old Kandodo Corner Shop, Makata road from Chichiri roundabout to HHI and Nyambadwe to Magalasi road. Market cleansing is also done on a daily basis in all the Blantyre City markets.

The city collects and disposes of waste from residential areas, the CBDs, and other land use zones on a regular basis. Waste is either collected from a central point or it is collected door to door or following a street pattern where the waste is deposited along the road on designated collection days. However, only about 30 percent of the waste generated in the city is collected, mainly in the formal neighbourhoods. In the unplanned or urban poor communities and in public spaces such as markets, hospitals, schools, and other public facilities, the city council maintains 53 communal skips which are strategically located throughout the city and are rotationally collected and emptied at Mzedi dumpsite.

Transportation of waste from different generation and collection points is done by specially designed waste collection vehicles which include compactor trucks, skip handling trucks, tractor and trailer, and vacuum tankers (freighters). Small amounts of waste are transferred to different waste collection points using wheelbarrows and other means of transportation. Waste from the industrial sites is transported to the dumpsite by the industries themselves rather than BCC.

#### Waste disposal

BCC operates one waste dumpsite site namely Mzedi. This is located about 5.5 km north-east of Limbe off Zomba Road and the sprawling Kachere slum settlement. The site has been in use since 1993 and was expected to have a life span of 20 years. Although the lifespan has passed, the city continues to use Mzedi. Overall, the dumpsite environment has deteriorated considerably. Originally, the dumpsite was minimally engineered and was set in a naturally forested valley where little excavation was needed. The site was not lined to control nor collect leachate percolation prior its use. Construction was limited to an earthen berm, erected along the southeast edge of the main dumpsite. This was intended to protect a nearby watercourse

from contamination. Nevertheless, the once forested area is now exposed with no fixed boundaries between dumping grounds and adjacent land. Surface water drainage has deteriorated, with runoff draining directly into the adjacent watercourse. The berm designed to protect this stream has severely eroded, failing in a number of spots and spilling solid waste into the river below.

The disposal site is expected to deteriorate further as the city does not have the capacity or resources, including heavy equipment or machinery, required to maintain and sustain the auxiliary infrastructure. The disposal site is not fenced and is not properly managed. Consequently, unauthorized dumping occurs around the perimeter of the main site, including along the main access roads. Illegal dumping of waste at the site frequently makes it inaccessible.

### 4.2.3.3 Summary Assessment

In general, it is estimated that 30% of total waste generated and collected within the city's boundaries is disposed of at Mzedi, while 70% is illegally dumped at other sites or disposed of on the property or land where it is generated. Hazardous waste is frequently mixed with general waste, exposing them to hazardous elements and polluting the environment. The leachate that percolates and makes its way into the watercourse along the southeast edge of Mzedi varies seasonally. Waste transformation, is non-existent in Blantyre, but some waste recycling and recovery is done at Mzedi by scavengers who collect plastics, metals, glass and rubbers for sale. There are no recycling plants through which waste can be separated and collected for reuse, reprocessing and remanufacture. Waste is not regarded as a valuable resource which can be used to reduce demand for the resources and also the amount of waste requiring disposal.

There are no physical, chemical or biological procedure employed to alter waste and no attempt to improve the efficiency of solid waste management recyclable materials and to recover conversional products (e.g., compost). The indiscriminate disposal of waste throughout the city causes health risks and severe pollution of rivers and streams as well as roads and open spaces throughout the city. It severely tarnishes the image of Blantyre.

### 4.2.4.1 Supply Responsibility

Historically, ESCOM served as Malawi's vertically integrated utility and was fully responsible for the entire value chain, from generation to supply. The policy-making, regulatory, and shareholder responsibilities related to the energy industry in general and ESCOM in particular fell entirely within the purview of the Energy Ministry. With the adoption of the Energy Regulation Act, which provided for the creation of the Malawi Energy Regulatory Authority (MERA), this structure started to shift in 2004 in accordance with changes elsewhere. This led to the unbundling of electricity supply into two; (1) generation and (2) transmission and distribution. Generation of electricity was allocated to a newly established Electricity Generation Company Malawi Limited (EGENCO) whilst the latter was entrusted to ESCOM.

Bulk electricity is sourced from EGENCO's four hydro power stations of Nkula, Tedzani, Kapichira and Wovwe; and the thermal and solar power plants in Lilongwe, Mzuzu and Mapanga. Overall, EGENCO has a total installed generation capacity of 441.95MW, with 390.55MW from hydro power plants and 51.4MW from thermal power plants.

Blantyre has a large number of industrial, commercial, and residential electrical energy customers as a result of its commercial status. The energy consumption in the southern region of the country is estimated to be 51% of total national energy consumption (225.4MW), with Blantyre serving as the central hub for the majority of that demand. Currently, Blantyre city demands about 154.5MW representing 35% of nationally generated electricity.

Generally, electricity supply in Malawi and Blantyre city is insufficient to meet current and future demand and power outages is the norm rather than the exception. Electricity supply is currently determined by production capacity/availability rather than customer demand. A significant amount of self-generation by larger industrial and commercial customers compensates for the shortfall in supply capacity. Regarded as an important component of economic infrastructure, this situation negatively affects economic growth in Blantyre and Malawi.

### 4.2.4.2 The System

Blantyre currently has four major substations that serve as an interface between the transmission and distribution networks. Blantyre West (132/66/33/11kV) is located to the west, Mapanga (66/33kV) to the north-east, Chigumula (66/33kV) to the south-east, and Chichiri (66/33/11kV) in the city centre. Map 8 shows the spatial and the schematic distribution and

transmission of electricity in Blantyre. According to the most recent load data, these four substations are nearing their design limits.



DATUM: WGS84; PROJECTION: UTM ZONE 26L; PREPARED BY: P. NKWANDA; JAN 2024

Map 8: Electrical Distribution Network

Power is distributed at 33kV, 11kV and LV. There are approximately fifty 33kV feeders, with an estimated average length of 140km each - a total of approximately 7,000km. This includes a 33kV sub transmission network which supplies 33/11kV stations. There are approximately 120 11kV feeders, with an estimated average length of 35km each for a total of about 4,200km. Surveys indicate that each MV substation has an LV network (excluding services) of around 2 km. This creates an overall LV network length of about 8,000 km. Only 66% of Blantyre's 800,264 residents have access to electricity.

#### 4.2.4.3 Summary Assessment

According to the most recent load data, the four substations are nearing their design limits. The majority of the substations were put into service a long time ago, necessitating the construction of additional substations to reduce the load on existing substations operating beyond their capacity. Further, the northern part of the city (Lunzu area) has recently been designated as an industrial zone by city planners. Unfortunately, the area receives power from distant substations, so that the distribution network is very weak. With demand exceeding the bulk supply capacity, electricity provision has a negative impact on economic growth and industrialisation in Blantyre and it needs to be improved to stimulate growth and investment. According to the 2018 Census, 67.0% of households in the planned areas and 63.21% of households in the unplanned areas use electricity for lighting while a much smaller percentage (21.76% in planned and 6.04% of households in unplanned areas) use electricity for cooking. This indicates that electricity is available to a substantial proportion of households in the city but that it is mostly used for lighting and not so much for cooking. A high 67.36% of households in planned areas and 86.97% in unplanned areas use charcoal for cooking. As this pattern changes the demand for electricity will increase and more pressure will need to be put on generation to meet the demand in the city and the country.

#### 4.2.5 URBAN DISASTER RISK

### 4.2.5.1 Management Responsibility

Technical capabilities and material resources are necessary for effective disaster risk management strategy planning and implementation. Disaster risk management activities in Blantyre City are coordinated at the central level by the BCC's City Civil Protection Committee (CCPC) and at the ward level by Ward Civil Protection Committees (WCPC) from each of the 23 wards. The Chief Executive Officer directs the process of organizing and coordinating

disaster risk management activities. The Directorate of Leisure, Culture, and Environmental Services (DLCES) serves as disaster risk management's desk office (DRMO).

A number of Government and private organizations provide services within the city. These include all participants (CBOs, FBOs, NGOs) and agencies, whether local or international, operating in DRM related activities in the city wards and which have a direct stake and interest in the preparation, implementation and overall management of disaster risk related programmes. While it is everyone's responsibility to manage disasters, key management is provided by the DRMO, CPCs, and Technical Sub-Committees. The Office for Disaster Risk Management serves as the central coordinating institution for all MDA and stakeholder activities. In the case of BCC, the primary coordination centre is the DRM Coordination Centre at the Civic Centre

### 4.2.5.2 Vulnerability to Disasters

The city is vulnerable to a number of disasters, which include heavy storms that result in floods and landslides, disease outbreaks, earthquakes and drought. Flooding is the city's most serious threat as the location and geography of Blantyre exacerbate flood risks. The upper catchment areas are deforested, and the river channels emanating from the city's hilly terrain are narrow and deep. The situation is further aggravated by rapid population growth, poor enforcement of environmental, social and economic regulations, poor waste management practices, unplanned development of land uses and climate change. This has led to environmental degradation, and uncontrolled development on fragile land. This has exacerbated the city's catchment characteristics leading to persistent flooding and associated hazards. In addition, the city average annual precipitation (which is greater than the national average) increases the likelihood of urban flash flooding.

#### Floods

Flooding is the most common hazard that affects most parts of the city. Heavy rainfall generates excessive runoff in the river channels causing them to swell and inundate flood plains. Poor solid waste management leads to litter collecting n the river channels and block the drainage systems during flood events. Generally, flooding in the city is influenced by a number factors, but mainly the topography that makes low lying areas vulnerable. This has been compounded by deforestation, inadequate drainage systems on the roads and other infrastructure and by collection of solid waste in and the siltation of rivers.

# Earthquakes

Located on the edge of the African Rift Valley, some prominent faults occur both within the boundaries of the city as well as in the immediate vicinity. Faults are associated with movement and hence earthquakes. Most of the epicentres of the earthquakes in the Rift Valley are located on prominent faults. During the period 1900 to 1994, a great number of earthquakes were recorded in Malawi. Although the epicentres of most of these earthquakes are located in the area covered by Lake Malawi, about 40 of them had their epicentres within a 50 km radius of Blantyre. All of them exceeded a magnitude of 3.0 on the Open-Ended Richter Scale and, of these, five had a magnitude between 4.0 and 4.9. One had a magnitude of between 5.0 and 5.9.

### Landslides

Given Blantyre's hilly topography landslides, which are related to the region's geology, geomorphology, climate, and land use regimes, are a frequent geo hazard that affects the city. The mountains that surround the city, lie between 800 and 1600 meters above sea level, including Soche (1524 meters), Ndirande (1564 meters), Michiru (1433 meters), Bangwe (1510 meters), Mpingwe (1450 meters), Mzedi (1420 meters), Sanjika (1100 meters), and Nyambadwe (1180 meters). The variances in altitude and geology have an impact on the rapid denudation processes, which occasionally has negative effects on the city as a whole.

Rapid urbanization, urban management, climate change, and environmental degradation exacerbates the propensity for landslides as unplanned settlements develop close to river banks and on steep slopes that are prone to flooding and soil saturation.

### Drought hazards

Many households practices agriculture within the city space. The city's vulnerability is rendered severe by the effects of climate change, rapid urbanization, limited water resources and opportunities for employment, deforestation, high interest rates on local loans from moneylenders, and a lack of effective leadership in times of crisis (disasters), among other issues. In Blantyre City, a weather-related shortfall in water supply poses the threat of a drop below normal in the surface and subsurface water supplies (such as stream flow, reservoir, ground water, and aquifer) for an extended period of time without precipitation. Map 9 shows the location of potential hazard events.



Map 9: Areas susceptible to potential hazards

# 4.2.5.3 Summary Assessment

Hazards identified in various locations throughout the city pose threats and have a potential to cause disasters. Landslides, for example, are common in high/raised areas, whereas low lying areas are vulnerable to flooding and siltation. According to the 2018 Participatory Vulnerability and Capacity Assessment (PVCA) Report, there are several vulnerability factors that make communities disaster-prone. Table 3 outlines the different vulnerability factors:

Table 3: Summary of Vulnerability Factor
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Hazard	Vulnerability Factor
Floods	<ul> <li>Settlement in flood prone areas</li> <li>Traditional houses not resistant to floods</li> <li>Lack of knowledge and awareness about floods risk management</li> <li>Heavy siltation of rivers</li> <li>Poor waste management exposing people to secondary effects of floods e.g. cholera</li> <li>Indiscriminate disposal of solid waste leading to blockage of storm water drainage systems</li> </ul>
Epidemics	<ul> <li>Congested buildings in informal locations</li> <li>Poor road networks</li> <li>Haphazard disposal of, materials: plastic bags, bottles and disposable baby diapers</li> <li>Contaminate rivers and water sources</li> <li>Inefficient waste water treatment in waste water treatment facilities</li> </ul>
Heavy storms	<ul> <li>Poor housing structures that cannot withstand strong winds</li> <li>Risky physical environment as most settlements are located in the open space vulnerable to damage in times of storms</li> </ul>
Prolonged dry spell (Drought)	<ul> <li>Limited livelihoods</li> <li>Fragile micro economy</li> <li>Overdependence on rain fed agriculture</li> <li>Dependence on maize as main food</li> <li>Poor agricultural practices</li> <li>Lack of access to improved and drought tolerant crop varieties</li> <li>Lack of knowledge and education about drought mitigation</li> </ul>
Fire	<ul> <li>Illegal electricity power connection</li> <li>Congestion of houses in informal areas</li> <li>Improper use/handling of flammable substances e.g. gasoline, lighting candles</li> <li>Naked fire</li> <li>Improper use of electric appliances</li> </ul>

In addition, insufficient institutional and financial capacity, together with the proliferation of unplanned development and settlement, compounds the vulnerability factors and increase the risk for residents, especially in the identified high risk areas.

### 4.2.6.1 Responsibility

The various roles and responsibilities within the city transportation system are distributed among a number of public and private sector organizations. Blantyre has a multi-modal transportation system that includes road, rail, and air transport.

According to the amended Local Government Act (2010), BCC is responsible for managing and regulating city operations, including transportation systems. The directorate or department of works and engineering services is in charge of providing engineering design services for the Council's various projects including road transportation infrastructure. In general, the directorate is responsible for road maintenance projects within the Council's jurisdictions and is mandated, among other things, to:

- Maintain and improve access and mobility by effective management of the highways. Some maintenance tasks are contracted out, but the city council also performs some maintenance tasks with its own maintenance personnel.
- Improve pedestrian traffic security by the introduction of traffic calming measures and the maintenance of footpaths
- Improve traffic management and control so as to maximize the potential of the highways network to serve employment-generating development.

The Department of Works and Engineering is also responsible for planning, designing, and managing the city's transportation infrastructure. In collaboration with the Town Planning and Estates Management directorate, which is responsible for development control and enforcement services among other things, the department also controls developments within gazetted public road reserves as provided for by Public Roads Act (1962). However, the city council lack adequate enforcement mechanism which significantly impacts on traffic mobility and safety.

Malawi Railways and its infrastructure in Blantyre city are solely owned and operated by the Malawi government. However, through a concession, Nacala Logistics, a consolidation of Northern Development Corridor (CDN), Integrated Logistics Corridor of Nacala (CLN), Africa Logistics Company (CLA), and Central East African Railways (CEAR) have the right to use, operate, and manage Malawi Railways' assets, including those in the city. Generally, the railway transport system is operated and managed by Nacala Logistics, a private institution.

Air transport in Blantyre city is facilitated by Chileka International Airport under the Department of Civil Aviation (DCA) operating in the Ministry of Transport and Public Works. The department is responsible for all operations including the provision of aerodrome operation services, air traffic management services, aeronautical telecommunication engineering services and firefighting services. Further, the department is also responsible for regulating civil aviation operation services under the Divisions of Airworthiness, Flight Operations, Personal Licensing and Air Transport Planning.

# 4.2.6.2 The Network

Blantyre is well connected by road to all major areas within Malawi. The majority of the key infrastructure for road, rail, and air transport form part of a network of international corridors used for international freight transportation. Blantyre is also well connected to Malawi's main international ports in Mozambique, Beira and Nacala. The city's transportation system is dominated by road transportation, with services provided by minibus, private car, and bicycle (including bicycle taxi). Walking is another prevalent mode of transportation.

### The Road Network

Blantyre has about 911.7 km of road network, including bridges and culverts. Approximately 18% (166.7Km) of the total road network is paved. This consists of primary and secondary distributors. The remaining 72% is unpaved. The primary distributors road category comprises a network of 85Km while the secondary distributor road category comprises of 81.7km. The tertiary road and district road categories constitute the majority of the road network and accounts for 742km.

Table 4 summarizes and shows the road network composition in Blantyre City.

Road Name	Road Class	Distance(m)	Lanes	Road Condition
Zalewa road	Primary Distributor	17271	2	Good
Kenyatta drive	Secondary Distributor	4529	2	Good
Chikwawa Road	Primary Distributor	5225	2	Fair
Mahatma Ghadhi Road	Secondary Distributor	2266	2	Fair
Chiradzulo Road	Primary Distributor	6797	2	Fair
Zomba Road	Primary Distributor	18275	2	Good
Mitsidi Road	Secondary Distributor	1801	2	Good
Joachim Chissano Road	Primary Distributor	1082	2	Good

Table	4:	Main	road	network	in	Blantvre
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Road Name	Road Class	Distance(m)	Lanes	Road Condition
Chileka road	Secondary Distributor	9372	2	Fair
Kapeni road	Secondary Distributor	5038	2	Good
Glyn Jones	Primary Distributor	745	2	Good
Churchill road	Primary Distributor	2867	2	Good
Thyolo Road	Primary Distributor	8616	2	Good
Pioneer Drive	Secondary Distributor	2145	2	Fair
Kanjedza Camp Road	Secondary Distributor	367	2	Fair
Ndirande Makhetha Road	Secondary Distributor	4610	2	Poor
Ndirande ring road	Secondary Distributor	3721	2	Fair
Nkolokoti Road	Secondary Distributor	15261	2	Poor
Livingstone Avenue	Primary Distributor	1022	2	Good
Makata Road	Primary Distributor	2735	2	Good
Hynde road	Secondary Distributor	975	2	Good
Tsiranana road	Secondary Distributor	1088	2	Good
Masauko Chipembere Highway	Primary Distributor	13581	4	Good
Robert Mugabe Highway (Midima)	Primary Distributor	5521	2	Fair
Glyn Jones	Secondary Distributor	1992	2	Good
Chileka Road (Magalasi)	Secondary Distributor	8183	4	Good
Michiru Road	Secondary Distributor	5574	2	Fair
Likhubula Blackbox Road	Secondary Distributor	1225	2	Poor
Chilomoni road	Secondary Distributor	3336	2	Fair
Victoria Avenue	Primary Distributor	1275	2	Good
Dalton road	Secondary Distributor	1038	2	Good
Manje Road	Secondary Distributor	7095	2	Fair
Dunduzu road	Secondary Distributor	2235	2	Good

The condition of the main road network is reasonably good. The paved road network is generally in a good to fair condition, partly as a consequence of the backlog maintenance programme for urban roads and the upgrading programmes for main roads. Access streets in the city's neighbourhoods were once paved but the pavement has generally deteriorated that

the access streets are beyond repair and needs to be rebuilt. The unpaved network is largely in a poor condition. The condition of unpaved roads is influenced by the environment, weather and changes in traffic levels.

### Non-motorised transport

High population growth has created a huge demand for non-motorized transport infrastructure. According to the Malawi National Transportation Master Plan, the number of walking trips per person in Malawi's cities is high, ranging from 0.39 to 0.54 trips per person per day. Figure 6 clearly indicates that walking is the main mode of transport in all cities and this emphasises the importance of pedestrian infrastructure in the city's roadways. Shows the concentration of roads and tracks in the city.



Map 10: Roads and tracks


### Figure 6: Main mode of transport in Malawian Cities

Unpaved roads in particular does not make provision made for pedestrian and cyclist traffic. With poor traffic management contributing to increased congestion, accident fatalities and injuries are prevalent. There is a need to provide adequate facilities for pedestrians and bicycles for the sake of both traffic mobility and safety.

# Public transport

Generally, Blantyre's public transportation system is comprised of both formal and informal modes. There are two inter-district or regional bus depots in the city, as well as several minibus and taxi ranks which are jointly administered by the BCC and the Minibus Owners Association of Malawi (MOAM). The Directorate of Road Traffic enforces safety and permit requirements whilst MOAM regulates the allocation of minibus routes. The majority of the city's arterial and distributor road networks have provincial pool parking spaces, making public transportation operations easier.

Public transport in Blantyre city is also characterised by the following challenges:

- ✓ Unregulated fares of minibuses, causing a demand driven variable fare regime for the end-users;
- ✓ Unregulated routes of minibuses, resulting in an inefficiently planned public transport system in cities;
- $\checkmark$  Limited reach of the minibus services in wider urban areas due to poor road conditions;
- $\checkmark$  Lack of sufficient road capacity in certain areas, causing high peak hour congestion;
- ✓ Lack of adequate bypass or relief roads to avoid the mix of through traffic and local traffic in urban centres. This not only increases congestion, but also road accidents.

### Air Transport

Blantyre's only aviation infrastructure is Chileka International Airport. The airport is 13 kilometers northwest of Blantyre's central business district and serves both the city and Malawi as a whole. Chileka Airport is primarily served by national airlines from Malawi, Kenya, and Ethiopia. International flights to Dar es Salaam, Harare, Johannesburg, Lilongwe, and Lusaka are offered. While the airport's air traffic demand is steadily increasing, it's facilities are in poor condition because no major improvements have been made since it was built in the late 1940s. The vast majority of the current aeronautical infrastructure and equipment dates back more than 25 years and is therefore unsuitable for modern demands. The majority of the existing equipment has outlived its useful lifespan, rendering it unreliable for use and costly to maintain. Technological advancements in the air navigation industry have necessitated the installation of systems that will ensure aircraft safety at all airports. The airside infrastructure, including runways, does not meet international standards. The passenger terminal building is small and poorly maintained, and the airport equipment is generally old and dilapidated.

### Rail transport

Blantyre's railway network constitutes 23.45km of the national 797 km mainline single cape gauge network. The network's axle load capacity ranges from 15 to 20.5 tons.

Despite providing the shortest and least expensive option for freight and passenger travel, the rail transport system is largely unreliable and inefficient. The main constraints are insufficient rail coverage within the city, poor asset management and maintenance, poor condition of railway depots and a weak regulatory environment. Frequent suspensions of rail services affect rail operations (cash flows and revenues) due to the poor condition of both the system's permanent way and rolling stock. For many years, the entire rail track system within Blantyre city has not been adequately maintained.

### 4.2.6.3 Summary Assessment

Blantyre's main road system is in a relatively good and serviceable condition. However, the mobility function of many arterial and distributor roads is often compromised through (1) informal economic activity along the roads and often within the road reserve, (2) taxi and minibus movement and indiscriminate stopping and parking, (3) the behaviour of motor cyclists that has an impact on safety and (4) hawking and vending in the CBDs that further inhibits the mobility function of the roads.

Nevertheless, it is must be understood that informal economic activity in Blantyre is one of the most important livelihoods systems for its residents and it is therefore necessary to strike a  $49 \mid P \mid a \mid g \mid e$ 

balance between the mobility and activity functions of roads. Traffic law enforcement and the enforcement of road transport regulations and by-laws are not satisfactory and should be improved and emphasis placed on the most important traffic flow issues.

Too little emphasis and resources are allocated to non-motorised transport infrastructure, especially in the light thereof that about 70% of all trips in the city are made on foot. Much more emphasis is needed on facilities for pedestrians and cyclists.

The taxi industry makes use of small vehicles and mini busses and provides an important service. Nevertheless, behaviour of taxi drivers compromises road safety and mobility and congest parking in the CBDs. There is a dire need for an efficient and affordable public transport system for the city. However, affordability levels and low residential densities militates against a sustainable system.

The construction and maintenance of roads are major cost components of any city's budget. The increase in the population and number of vehicles, combined with poor traffic management standards, is causing increased congestion in the city.

Chileka Airport, albeit under the responsibility of the Department of Civil Aviation (DCA) operating in the Ministry of Transport and Public Works, is an important component in the transportation system. However, insufficient investment and maintenance caused it to be in poor condition and not appropriate to function as an international airport of suitable standing and quality.

The railway transport system is generally in poor condition due to the concessionaire's (CEAR) lack of investment. Rampant theft and vandalism of railway materials further contribute to these problems. Very little freight is transported via rail because of its unavailability. This translates into a significant economic cost and increased emphasis on road transport.

# 4.3 ENVIRONMENTAL PROFILE

# 4.3.1 TOPOGRAPHY

Blantyre has varied topography with a number of hills such as Ndirande, Soche, Mpingwe, Mzedi, Bangwe and Michiru. It is traversed by a number of rivers and streams namely Mudi, Naperi, Nasolo, Luchenza, Likhubula, Lunzu and Limbe. At the start of the millennium there were three dams within the Blantyre City boundary namely the Mudi Dam, Hynde Dam and the Chimwankhunda Dam. However, today the Chimwankhunda Dam is completely silted up and the Hynde Dam has a limited water holding capacity.

Nine catchment areas drain the City. These are the Likhubula, Khombwi, Mudi, Mwampanzi, Limbe, Luchenza, Chisombezi, Mombezi and Lunzu catchment areas.

The Likhubula River System Catchment

This catchment drains the north-western parts of the city, the watershed running through the Chilomoni hills, the Blantyre Central Area, Mpingwe Hill, Ndirande Mountain, and Namilanga Hill.

• The Lunzu / Lirangwe River Systems Catchment.

Also draining in a general northerly to north-western direction, this watershed is defined by the Namilanga Hill, the Ndirande Mountain, Mpingwe Hill, Mzedi Hill, and Msemba Hill.

Mombezi/Chizombezi River Systems Catchment.

This catchment runs down the north-eastern parts of the city, and contains a number of rivers draining eastwards. The watershed is defined by the Msemba Hill, Mzedi Hill, Mpingwe Hill, Bangwe Hill, and Malabvi Hill.

The Luchenza River System Catchment

This river also drains eastwards, the catchment being found in the south-eastern parts of the study area. The catchment is defined by the Malabvi Hill, Bangwe Hill, the Chichiri area, and Chigumula Hill.

The Limbe / Mwampanzi River Systems Catchment

This catchment drains the south-western part of the study area. The catchment is defined by Chigumula Hill, the Limbe area, and Soche Mountain.

The Khombwi / Mudi River Systems Catchment

The Soche Mountain, the Limbe area, Ndirande Mountain, the Blantyre Central Area, and the Chilomoni hills define this catchment. The map overleaf shows the catchments and topography in Blantyre.



Map 11: Topography and Catchments

Gneisses and granulites of the Basement Complex are dominant within the Blantyre Area. The effects of high temperature and high-pressure re-crystallisation and deformation are clearly visible. This process took place in late Precambrian times about 500 million years ago. Exposure of these crystalline rocks is widespread, particularly in the riverbeds and along high mountain peaks. The strike of the foliation in the gneisses is north-north-east to south-south west and their dips are westwards at about 50°. The strike directions have controlled the rift valley faulting and also the course of the Shire River.

Two dominant rock types occur in the Blantyre area. These are a banded pyroxene granulite gneiss and a syenitic gneiss that is intrusive into the pyroxene granulite gneiss. The pyroxene granulite gneiss tends to occur in the lower lying areas while the syenite gneiss builds all the higher lying areas which include Michiru, Ndirande, Soche, Mzedi and Bangwe Mountains.

Numerous dolerite dykes that are believed to be of Karoo age occur in the Blantyre City area. The dykes generally intrude vertically and strike parallel to the foliation of the gneisses in a north-east to south-west direction. In places they follow lines of weakness such as joints and fault zones. The dykes vary in thickness from a few centimetres to more than 20 meters across. In areas where exposures are poor, distinctive lines of weathered spheroids that often form distinctive ridges generally mark the courses of the dykes. Elsewhere the dyke has been eroded more extensively than the surrounding country rock and it occurs in long linear depressions that often contain steams.

### 4.3.2.1 Groundwater

The residual soils tend to be medium dense to dense clayey to silty sands. The clay content is high along relict joints within these soils. As a result, preferential seepage of ground water occurs along the contact between the transported and the residual soils or within the contact between the bedrock and the transported soils. Accordingly, any excavations extending below the level of the contact between the transported and the residual soils will tend to fill with water. Because transported soils are often less than one meter thick, excavations for services or pit latrines can become inundated during the rainy months of the year. Another indication of a relatively shallow ground water table is the fact that many rural people from areas immediately surrounding Blantyre City obtain their water from hand dug wells which rarely exceed 5 m in depth.

In their unweathered form, the gneisses of the Basement Complex are impervious and therefore poor aquifers. Fracturing as a result of jointing and faulting does however facilitate the seepage

of ground water into these rocks. As has been described above, faulting has extensively affected these rocks and has resulted in the formation of fracture zones along the fault lines that extend to considerable depth. Fracture zones also occur adjacent to dolerite dykes. Geophysical surveys carried out by the Geological Survey Department of Malawi between the years of 1949 and 1965 have indicated that these fracture zones extend to considerable depth. Any borehole drilled into these fracture zones is therefore likely to intersect water. The static regional ground water table is estimated to vary between 5 m and 10 m below surface level.

# 4.3.2.2 Rivers, Wetlands and Sponge Areas.

Blantyre receives significant quantities of rainfall per annum, resulting in innumerable rivers and streams. The main rivers are Mudi, Nasolo, Naperi, Likhubula, Chirimba and Limbe. These are perennial rivers while there are also seasonal rivulets in all the catchments. In addition there are wetlands which are areas on a river with low river banks and a gentle slope. These are often inundated with water throughout the year, and usually covered or surrounded by reed / sedge growth.

The uncontrolled development along river banks, deforestation, brick moulding and sand mining in and along rivers, linked with limited coverage of a largely broken sewer system, not fully operational waste water treatment plants and the overwhelming use of pit latrines in informal settlements, the pollution filtering functions of the rivers and wetlands are overwhelmed. Indiscriminate liquid and solid waste disposal further compounds the problem. Sponge and seepage areas are usually found at the origin of rivers fairly high up in the catchment. These are threatened by increasing deforestation and cultivation in those areas, leading to topsoil being washed away with the resultant siltation of rivers and dams and pollution from agricultural activities.

Virtually all the rivers in the city are impacted through either township development within the 1:50 year floodlines or through agricultural activities within floodlines. The implications of this is clear and it has been felt clearly during the devastation brought by cyclone Freddy in May 2023. The effects of this event was further exacerbated by failure to maintain the river courses free of hindrances that could impede water flow and block stormwater structures and bridges.

# 4.3.2.3 Dams and Reservoirs

The most important Dam in Blantyre is the Mudi Dam. Plate 1 shows the dam and its environment.



# Plate 1: Mudi Dam and Catchment

The dam was under threat from agricultural activities in its catchment and the Blantyre Water Board then moved to protect the catchment in the form of a reserve. This has worked well and the dam is well protected and no longer subject to pollution and siltation threats from agriculture. The photo to the left shows the current situation while the photo on the right shows the situation as it was in 2002.

They Hynde dam is also somewhat protected, but has already silted up substantially. The Chimwankunda dam is fully silted up and the dam is now used for agriculture. The Burn Dam also no longer holds water of any significance.

# 4.3.2.4 Seismicity

Blantyre City is located on the edge of the African Rift Valley and some prominent faults occur both within the boundaries of the city as well as in the immediate vicinity of it. During the period of 1900 to 1994, a great number of earthquakes have been recorded in Malawi. Although the epicentres of most of these are located in the area of Lake Malawi, about forty of them had their epicentres within a 50km radius of Blantyre City. All of these exceeded a magnitude of 3.0 on the Open Ended Richter Scale. Of these, five had a magnitude between 4.0 and 4.9 and one a magnitude between 5.0 and 5.9.

Statistical analyses carried out on the earthquake data for the Blantyre area show that there is a 10% probability that a seismic event will occur within a 50 year period which will result in peak ground accelerations in hard rock that will exceed 80cm/sec/sec. This is in line with the Malawi Building Regulations, which requires buildings to be designed for horizontal ground accelerations of 10% probability of exceedance in 50 years.

# 4.3.2.5 Construction Material Extraction

There are several quarries for gravel material and crushed stone within the city limits. These quarries produce crushed stone for concrete aggregate and for road surfacing. Crushed sand is also produced in small quantities. The rocks do not contain any deleterious material that inhibit their use in concrete. The rock has however shown a weak affinity for bitumen that can be ascribed to the fact that they contain a high percentage of feldspar that renders them hydrophilic (attracted to water). In addition, crushed stone is also produced at small scale, mostly along the rivers and streams, and sold along the roadsides.

Sand is most commonly found in alluvial deposits along riverbanks and as deposits on roads caused by eroding storm water. Due to the small quantities which occur (generally less than 1000 m<sup>3</sup> at any specific locality), the exploitation of the sand takes place on a relatively small scale on an ad hoc basis, mainly in the rivers and streams. This results in further erosion of the riverbanks and impedes the ecological functions of the rivers and streams.



### Plate 2: Sand Extraction in the Mudi River

A variety of clays are used throughout the area for the manufacture of bricks. In the Blantyre City area, the demand is heavier, the buyer is more discriminating, and more care has to be taken in the choice of clays. The clays from the Blantyre city area vary in colour from yellow to brown to dark grey and are generally of alluvial origin (found along streams and rivers) although clayey hillwash deposits (found along pediments of higher mountains) have been used as well.

### 4.3.3 ENVIRONMENTAL CONDITIONS AND CONSERVATION

Biodiversity in Malawi contributes significantly to the economy and the well-being of its people. Agriculture, forestry and fishing contributed between 22.4% and 23.3% to the

country's GDP between 2017 and 2019. However, it is widely recognised that Malawi's biodiversity is threatened by habitat loss and fragmentation, invasive alien species, overexploitation, pollution and climate change.

While some environmental conservation structures are in place in Blantyre, the city suffers from a lack of resources and a coherent strategy to deal with the root causes of environmental degradation. The conservation status of Blantyre may be summarised as follows:

# 4.3.3.1 Aesthetics

The aesthetic quality of the parks and gardens in the City is commendable. However, this does not necessarily extend to the public open spaces of the City, most of which are not developed or maintained to an acceptable level. With respect to the built environment, the City has substantially lost control over building management and urban development.

# 4.3.3.2 Vegetation

There was a systematic degradation of vegetated land to bare land to built-up land over the period 1994 to 2010. Judging from the amount of charcoal brought into the city on a daily basis, it is fair to assume that the forest reserve outside the boundaries of the City has been similarly exploited to satisfy the City's needs for energy, especially in the informal areas where only about 12% of households have access to electricity.

### 4.3.3.3 Fauna

There is a paucity of wildlife outside the national parks. Malawi is facing a crisis over its forests. Because of the population density and the fact that wood is used by 90% as fuel, protected forests are under intense threat. Poachers and illegal tree fellers are mostly responsible for habitat destruction, thereby destroying wildlife habitat within the City.

### 4.3.3.4 Soil

Given the sandy and shallow nature of the soils, the loss of topsoil follows any disruption of the groundcover. The common practice of removal of sediments from riverbeds for building material is in itself conducive to further erosion. The silting up of the Hynde and Chimwankhunda Dams is evidence of the extent to which top soil is lost. Hard surfaces, specifically roofs and roads, increase the volume and intensity of stormwater runoff reaching the natural drainage systems. This is most significant on steep slopes where informal settlements are proliferating.

# 4.3.3.5 Services and Facilities

The solid waste management system is overwhelmed and uncollected domestic waste is visible throughout the City. The five water-borne sewerage networks are in disrepair and leak sewage and industrial waste into the water courses. Informal areas are largely dependent on pit latrines which, at the densities of these areas, present real risks to water quality and of groundwater pollution.

Failure to maintain City infrastructure and services and solid waste management leads to potholed roads, blocked stormwater structures and uncollected solid waste. This further detracts from the aesthetic quality of the cityscape. With the exclusion of some key arterials, lower order roads are generally in poor condition. This has led to degradation of the visual character and quality of the City, but also to negative perceptions about service provision by the City Council. In turn, this generates motivation to withhold the payment of rates and taxes to the City.

Over the past two decades, the condition of the five water-borne sewer systems in the City has deteriorated considerably, to the extent that increasing amounts of untreated sewage have found its way into the natural river systems. In addition, with informal settlements mainly using pit latrines, groundwater contamination occurs and has led to serious disease in some of these areas.

### 4.3.3.6 Air Pollution

Air pollution resulting from industrial activities is normally chemically based. This is experienced as odours, grime, and possibly respiratory difficulty. Two main areas are of concern, namely the Blantyre East and Limbe area, and the area north of Ndirande West. Each manifests as a plume of industrial air pollution to the north-west during the winter periods, and a lesser radial affected area during summer. Further sources of air pollution are fires at the Blantyre landfill and the burning of wood and charcoal for domestic purposes.

### 4.3.4 ENVIRONMENTAL ISSUES AND PLANNING IMPLICATIONS

Blantyre's **topography** is undulating and interspersed with hills and mountains and drained by 9 river catchments. There are also flat areas that serves as wetlands and sponge areas. Some **slopes** are steep and this makes the city vulnerable to flash flooding and landslides. It also increases the risk of pollution since everything drains into the river systems. Unplanned development on steep slopes increases the risk to those residents, but also to the environment.

The plan should consider this reality and establish development parameters that could guide development towards the most suitable areas and prevent development in the environmentally sensitive areas of the city.

A large percentage of households in the city is dependent on pit latrines for **sanitation** while the waterborne sewer systems in the city is in disrepair. This results in serious surface and groundwater pollution. This is an extremely undesirable situation that influences both environmental and human health and it must be ensured that the Water and Sanitation Project addresses the key issues.

The **solid waste** management system is not functioning effectively and waste litters the environment and invariably finds its way into the rivers and streams. Besides the obvious environmental impact, it is also a hazard risk since it blocks the stormwater system and contribute to flooding.

The **legislative framework** that enables the city to deal with environmental protection and management is established, yet the powers afforded to the authorities to decisively implement environmental protection is not used as it should. As a result, transgressions are not dealt with and pollutive practices continue unabated in the city. Institutional capacity to effectively manage and protect the environment is low and needs to be developed and strengthened.

While Blantyre has a great natural **open space system** underpinned by its rivers and streams as backbone and augmented with zoned public open spaces, the system is neither recognised nor used to its full potential. Zoned public open space is often neglected and undeveloped while the main urban parks are not maintained as it should be. A new urban open space system integrated perhaps with a non-motorised transport network should investigated.

**Urban agriculture**, which is the source of livelihood for many, also contributes to environmental degradation. Virtually any vacant land, even on steep slopes, is stripped and cultivated. This contributes to soil erosion and pollution, with fertiliser seepage invariably finding its way into the river systems. **Deforestation** resulting from the need for arable land to cultivate and from the need for wood and charcoal for energy further degrades the environment.

The main pollution issues relate to broken systems and lack of management and enforcement of environmental regulations. Protocols and programmes need to be developed to effectively manage the environment back to sustainability.

# 4.4 ECONOMIC AND DEMOGRAPHIC PROFILE

# 4.4.1 POPULATION GROWTH AND DISTRIBUTION

In 2018, Blantyre City accommodated 4.6% of the national population and 28.4% of the total urban population. The city has grown from a very small town of 109,461 people in 1966 to a metropolitan city of 800,264 people, comprising 50.13% males and 49.87% females. The Population in 2018 is almost 8 times that of 1966. The total population increased by 35 percent between 2008 and 2018 representing an intercensal growth rate of 1.9 percent per annum. At this growth rate, the population is expected to double by about 2055.



Map 12: Distribution of the population

# 4.4.1.1 Formal Residential Areas

The Population Distribution Map (Map 12above) shows the distribution of the population in the city. Each dot on the map represents 25 people. The most thinly populated areas are in the centre of the city along the corridor between Blantyre and Limbe, BCA, Mudi, Chichiri, Ginnery Corner, Mandala, Sunnyside, Nyambadwe, Namiwawa and Likhubula.

# 4.4.1.2 Informal Residential Areas

The informal residential areas are those that developed spontaneously without any formal planning. They are characterised by lower levels of services, insufficient access, and high density. They accommodate the majority of the temporary structures in Blantyre. The Population Distribution Map shows that the population is distributed more densely in areas such as Bangwe, Bisiyele, Manja, Kachere, Nkolokoti, Ndirande, Mbayani and Mbwerera. Development in these parts of Blantyre is taking place spontaneously and without planning. The density is still low, but in some clusters it would already be difficult to formalise the area in future. This is an example of how control is easily lost, and this will continue and worsen if left unchecked. The unplanned areas in the city occupies 31% of the land area (excluding the mountains and conservation areas), yet accommodate 63% of the population.

### 4.4.2 POPULATION DENSITY

### 4.4.2.1 Formal Residential Areas

The planned residential areas, including the formally planned CBDs and industrial areas, is 148km<sup>2</sup> in extent and accommodates a total of 298 300 people at a mean gross density of 2016 people per km<sup>2</sup>. Translated to households per hectare, this is a mean gross density of 4.8 households per hectare. This statistic is important because it provides clues about the development intensity in the city in the light of its relative compactness. The formal areas accommodate 37% of the population on 69% of the land.

# 4.4.2.2 Informal Residential Areas

The informal or unplanned areas accommodate 501,964 people in 120,351 households at a density of about 18.2 households per hectare. This is substantially higher than in the formal areas. However, it is still relatively low because of the "single" residential nature of these areas, where every house is at ground level and no vertical residential development takes place. This contributes to urban sprawl and makes the provision of roads and utility services much more expensive.



Map 13: Gross Household Density by Ward 62 | P a g e

Put together, in 2018 Blantyre accommodated 191,634 households on 21,400 ha of land (excluding conservation areas and reserves) at a mean gross density of 8.95 households per hectare. The Residential Densities Map (Map 13) provides a spatial indication of the gross household densities in the city's wards. It is only in the Bangwe and Mbayani Wards where gross densities of 25 du/ha and higher are present while the Ndirandi Ward has a gross density of between 15 and 24 du/ha.

# 4.4.3 POPULATION PROJECTIONS

Blantyre has grown from a small town with a population of 109 000 in 1966 to a large city of 800 000 people in 2018. This means that the population has increased virtually eightfold over a period of 62 years. The first doubling of the population of the city happened after about 11 years, the second after 17.5 years and the third took 27 years. This is also clearly visible in the population growth rate for the city, which has steadily declined for each intercensal period.

# 4.4.3.1 Population



The Figure below shows three projections representing low, medium and high growth scenarios.

### Figure 7: Population Projection

The result of these scenarios is that the end of plan the population would be 1,143,348 for the low projection, 1,188,684 for the medium projection and 1,224,483 for the high projection. It is recommended that the low growth scenario be adopted as the projection scenario for the plan and that this will form the basis of calculating the land budget and requirements for the Blantyre Urban Structure Plan: 2023 - 2038. This slightly higher than the NSO projection of 1 052 643 people by 2038.

### 4.4.3.2 Households

It is assumed that, in line with international and regional trends, the household population in Blantyre will increase at a faster rate than the population. New household formation will play a significant role in the need for housing and services. It is projected that the number of households in the city will increase from the 191,681 in 2018 to 229,466 by 2025, 260,889 by 2030 and to 296,615 by 2035.

### 4.4.4 SOCIO-ECONOMIC CONDITIONS

# 4.4.4.1 Employment and Unemployment

It is estimated that 20.7% (or 70,671) of the city's labour force is unemployed. Disaggregated by sex, it shows the discrepancy between the genders with 13.99% of males and 28.64% of females being unemployed. This indicates the undesirable situation for females in the sense that almost 30% of females are unemployed.

To shed more light on employment patterns, the main sources of livelihood were investigated. The vast majority of households earned their main source of income from employment (48.79%). This is followed by own business activities (28.93%) and by piece work of Ganyu (12.84%). The remaining livelihood categories are low, with remittances (1.56%), pensions (0.92%) and petty trading (0.86%) making up the next three.

### 4.4.4.2 Poverty

On the basis of the above consumption figures, poverty must be fairly rife in Blantyre. The Ultra Poverty Line (insufficient income to meet food requirement) was calculated at MK 8441 per month, while the poverty line (insufficient to meet basic needs) was calculated at MK 13 823 per month. When applying these criteria it is found that 14.9% of people in the city are regarded as poor while 1.5% are regarded as ultra-poor.

### 4.4.5 HOUSING PROFILE

The provision of serviced land and housing in Blantyre fall short of the need and institutions responsible for the supply of serviced land and housing are not able to provide housing solutions and options that area affordable to the urban poor. As a result, the informal sector is the major supplier of housing in Blantyre. It has been so successful that it can be argued that there is no housing shortage in the city; all households have access to a housing structure. However, there are major issues with quality and sustainability. The effects of failure to plan for the supply of serviced land and housing are:

- Unplanned settlement which lacks provision for social and institutional amenities, access and infrastructure.
- Insecure land tenure which precludes access to finance.
- The absence of infrastructure services which leads to environmental risk, health risks and increased exposure to natural hazards.
- Reduced financial sustainability because of the difficulty to establish and maintain a system
  of rates and taxes and a low propensity to pay rates and taxes where no services are
  provided.
- Other players will enter the market and operate outside of the regulatory framework which, in turn, will likely cause downstream problems for the city.

Two distinct "states of affairs" exist in Blantyre; a formally planned and serviced part where conditions and services approximates European city conditions and an unplanned part where people make their own urban space without any consideration for future needs and land uses and without utility services.

# 4.4.5.1 Type of Housing Structure

While the proportion of traditional type houses in the planned areas and unplanned areas seems to be similar, the planned areas has a larger proportion of permanent structures (74.33%). This is to be expected. However, there are 53% of structures in the unplanned areas are permanent. This justifies why they are called unplanned rather than informal.



Figure 8: Type of Housing Structure by Planned and Unplanned Areas.

# 4.4.5.2 Source of Energy for Lighting and Cooking

More than 63% of households in both planned and unplanned areas used electricity for lighting, while the use of candles and batteries are also quite similar. This is an indication that electricity is largely available in the unplanned areas, otherwise this would not have been possible.

A high 86.97% of households in the unplanned areas versus 67.36% of households in the planned areas used charcoal for cooking; this despite the fact that many such households have access to electricity. This is an indication that cost considerations play a role and that people use charcoal for cooking partly because that is the traditional way of cooking, but also because of the cost of electricity for thermal energy.

# 4.4.5.3 Source of Drinking Water

In the unplanned areas the majority of households uses a community standpipe while 27.48% actually have piped water into the yard or into the dwelling. This is an indication that, despite the unplanned areas not being provided with infrastructure services at the time of development, utility services such as water and electricity have been provided to these areas over time.

# 4.4.5.4 Type of Sanitation

Comparing the planned and unplanned areas, only 33.7% of households in the planned areas have access to a flush toilet. This is unexpectedly low and indicates the (mostly recent) failure to provide water borne sanitation to residents. More than 90% of households in the unplanned areas depend on some type of pit latrine for their sanitation needs.

# 4.4.6 HOUSING NEED AND DEMAND

# 4.4.6.1 Targets

To keep pace with population growth in the city, 102,373 housing opportunities will be required over the next 15 years. This is the housing need. The housing demand, however, excludes that proportion of the population who cannot afford even the lowest possible planned housing solution. It has been shown that a registered plot without any infrastructure is affordable to only 45% of households in the city. This in itself points out the difficult challenge of planning, managing and maintaining the city with the majority of households having incomes that are not adequate to afford planned and serviced land. A planned, registerable and basically serviced plot is affordable to only 28.32% of households. The interest rate of 29% obviously plays a big role in this trend because the cost of money is very high.

# 4.4.6.2 Plots to be provided over the Plan Period

Applying the affordability calculations to the number of housing opportunities that will be required over the plan period, results in the demand figures as detailed in the Table below. The majority of plots to be provided over the plan period is unserviced or rudimentary serviced plots. Few people can afford to borrow money from a financial institution to build a house and

it seems that the best way to deal with this is to allow people to incrementally build their own houses.

No	Description	Percentage that can afford the option	Number of plots to be provided
0	Welfare Housing/land. Cannot afford anything.	6.8%	7 142
1	Formally Planned and registerable plot. Land is subsidised	45.33%	47 613
2	Planned and registerable erf, 300m <sup>2</sup> , communal water standpipe, stormwater, graded roads, sanitation self-provided	19.55%	20 535
3	Planned and registerable erf, 300m <sup>2</sup> , water on erf, stormwater, graded roads, VIP provided	10.76%	11 302
4	Planned and registerable erf, 300m <sup>2</sup> , water on erf, stormwater, engineered roads water borne sanitation	1.13%	1 187
5	Planned and registerable erf, 300m <sup>2</sup> , water on erf, stormwater, engineered roads, water borne sanitation, electricity	15.86%	16 659
6	Option 2 plus a 30m <sup>2</sup> starter structure.	0.57%	599
	TOTAL		105 036

Table 5: Disaggregated Housing Demand

# 4.4.7 ECONOMIC AND DEMOGRAPHIC ISSUES AND PLANNING IMPLICATIONS

The key issues of importance and which informed the strategic decisions taken for the structure plan are the following:

• The population growth rate of Malawi is high compared to southern African countries. At the same time the rate of urbanisation is also high while the actual level of urbanisation (share of population living in urban areas is low. This means that the country can expect many years of high tempo urbanisation.

- The rate of growth of the Blantyre population is on the decrease and both Mzuzu and Lilongwe are growing at a faster pace.
- The number of households in the city is growing at a higher rate than the population. This is mainly due to new household formation and must be considered during planning calculations.
- The unemployment rate in the city stood at 20.7% in 2018. At the same time, household income levels are low and 14.9% of people are regarded poor and 1.5% ultra-poor.
- Household affordability levels are also low with a small percentage of households able to afford a conventional housing solution. Interest rates are high and it is difficult to access housing finance.
- Most residents (63%) in Blantyre live in unplanned areas. These areas developed spontaneously and lack the full range of land uses one would ordinarily expect to find in urban neighbourhoods.
- The gross residential density stood at 4.8 households per hectare in the planned areas and at 8.95 in the unplanned areas. These densities are low compared to a desired density of 25 du/ha.
- In both planned and unplanned areas, service provision and maintenance are unsatisfactory as reflected in the high proportion of households using pit latrines for sanitation and the condition of water, sanitation, electrical and road infrastructure.
- The provision of education and health services are not regarded as adequate, especially not in terms of its distribution, and adequate provision for land to satisfy the future needs must be made.
- Electricity is available but mostly used for lighting while the vast majority of people use wood and charcoal for cooking.
- If Blantyre wishes to break the chain of informality, which characterised new growth over the past two decades, it will need to provide 105 036 new housing opportunities over the plan period. This is in addition to the need to formalise the unplanned settlements in the city.

### 4.5.1 FINANCIAL PROFILE

The availability of funds to execute its mandate is one of the key problems that the Council have to cope with. This lack of funding is evidenced in many trends such as the state of roads and streets in the city, the state of the wastewater treatment works, the state of public open spaces, the proliferation of informal settlement as a result of the failure to plan and provide serviced land and even in the state of maintenance of the Council's own buildings.

# 4.5.1.1 Revenue

The major local source of the City Council's income is property rates which contributes an annual average of about 51% to total revenue. The annual movement in revenue does not correspond with the annual inflation rate over the same period, rates and taxes levied increased by only 2% while inflation averaged 11.8% over the period. Considering that this was during the Covid19 pandemic, the increase in rates and taxes did not keep pace with inflation, in fact, it fell far short.

The second largest source of revenue was fees, fines, penalties and licenses. These did not follow the same pattern and it helped fill the gap left by low rates and taxes billings in 2020/21. Fees, fines, penalties and licences increased with 9% over the period against a mean inflation rate of 11.9%. Central Government Transfers, however, increased substantially over the four year period – from MK 590,925 million in 2018/19 to MK 1,95 billion in 2021/22, an increase varying between 41% and 61% per annum. Overall, revenue increased by only 3.5% over the four year period, which is an indication of the financial difficulty experienced by Council over that period.

The cash on hand movement (as a result of the high level of debtors) decreased from MK 7,360,484 billion in 2019/20 to only MK 309 846 million by 2022! This also provides an indicator of the meagre financial resource the city has available to perform its functions.

It is clear that the city's income is not sufficient to sustainably fulfil its functions. This is mainly evidenced in the state of the city's infrastructure, the quality of services such as solid waste management it provides and the fact that a large percentage of households in the city lives in unplanned areas indicating a lack of forward planning and development control. As became clear in the institutional assessment, about 44% of established positions at BCC is vacant while it is as high as 55.7% in the Town Planning and Estates Management Directorate and 32.6% in Engineering Services.

Capital expenditure as a proportion of total expenditure remains between 6 and 7%, which is very low.

# 4.5.1.2 Expenditure

Supplies and consumables are the highest expenditure category. These include office supplies and services, medical supplies, education supplies, agriculture inputs, food and rations and other goods and services. Notably these are the expenditure on "decentralised" services and it is perhaps an indication what the impact of the decentralisation of these services had on the ability of the city to fulfil its core functions. It is also substantially higher than the government transfers received as revenue.

The city's financial position is deteriorating despite the fact that BCC is relatively successful in balancing its income and expenditure. However, this balancing has been at the cost of "asset stripping", whereby the city is slowly stripped of its value due to failure to maintain it. Funds that should have been earmarked for maintenance is used to cover operational cost and this is therefore borrowed from assets.

# 4.5.1.3 Valuation and Rating

It has been mentioned many times by many stakeholders that the levels of affordability in Blantyre is low and that people find it difficult to afford rates and taxes. This is precisely the dilemma the city finds itself in. it cannot move forward to recover the cost of the management and maintenance of the city from its residents, nor does it receive adequate support from government to offset the inability of many residents to pay rates and taxes.

# 4.5.1.4 Summary of Financial Issues

Blantyre City's financial resources is a major cause of concern. As it stands, the city cannot be regarded as financially sustainable. Although it succeeds in balancing its income and expenditure, it is busy stripping its assets. If it continues in the same vein, the city will soon find itself in a position where its assets have become unserviceable and have to be reconstructed completely.

While a structure plan cannot directly improve the financial fortunes of a local authority it can make significant contributions towards financial sustainability and this structure plan needs to find ways in which the city can improve its "crop yield". This means increasing its income from its current infrastructure without the need to construct new infrastructure.

# 4.5.2.1 Council

Blantyre has 23 wards each of which is represented by a ward councillor who is elected every five years. The Council comprises of the elected councillors for city wards and members of parliament for city constituencies as well as five persons, as non-voting members, appointed by the elected members to cater for the interests of such special interest groups as the Council may determine. The elected members elect a non-executive mayor who heads the political arm of the Council. The functions of the Council are:

- to make policy and decisions on local governance and development for the city,
- to consolidate and promote local democratic institutions and democratic participation,
- to promote infrastructural and economic development through the formulation, approval and execution of city development plans,
- to mobilize resources within the city for governance and development,
- to maintain peace and security in conjunction with the Malawi Police Service,
- to make by-laws for the good governance of Blantyre,
- to appoint, develop, promote and discipline its staff,
- to cooperate with other Councils in order to learn from their experiences and exchange ideas and
- to perform other functions including the registration of births and deaths and participate in the delivery of essential local services.

# 4.5.2.2 Administration

The administrative arm of the Council is headed by a chief executive officer who is responsible for

- implementing the resolutions of the Council,
- the day-to-day performance of the executive and administrative functions of the Council,
- the supervision of the departments of the Council and
- the proper management and discipline of the staff of the Council.

The CEO heads the executive management comprising Directors of service and administrative departments of the Council.

# Blantyre City Council Service Charter

The Service Charter sets out the mandates of each of its departments and then spells out or commit itself to service standards for each department and acknowledge the service users rights. These include the right to:

- quality service,
- access to service delivery points,
- be heard and provided feedback on requests for services,
- be given reasons where a service has been denied,
- be treated with dignity and courtesy,
- access public information, and
- demand an official receipt where services has been paid for.
- However, it also sets out the responsibilities of service users as to:
- pay local taxes and charges timely.
- observe city by-laws and regulations,
- promptly report emergency cases and faults,
- supply council with feedback and suggestions on service delivery,
- report cases of theft and vandalism of council property,
- desist from indulging in bribery and other forms of corrupt practices,
- have a refuse bin for waste collection and take good care of infrastructure and property.

While the use of service charters is a commendable effort to improve service delivery, good intentions alone do not ensure follow-through. It needs to be adequately resourced to enable the departments to keep their promises.

# Blantyre City Council Strategic Plan 2018-2023

The Blantyre City Council's Strategic Plan for the period 2018 – 2023 articulates what the Council intended to do during this five year period to make progress towards socio-economic growth, infrastructure development and safety. The strategy formulation process included a review of international and national strategic guidance, an analysis of the Blantyre City Council (BCC) strengths and weaknesses and the opportunities and threats in the environment within which it operates and a PESTEL analysis. This resulted in the formulation of a vision statement, mission statement and a set of core values which will underpin the BCC operations. These are as follows:

*Vision Statement*: A City of choice in the SADC region with a conducive environment where people shall take ownership, live, do business and prosper

*Mission Statement:* To provide environmentally friendly, high quality, efficient and effective demand driven municipal services in partnership with the individual and corporate residents to attain better quality lives for all residents in the City.

*Core Values:* Accountability and transparency, Zero tolerance to corruption, Professionalism, Local participation, Team work, customer care oriented and gender sensitivity.

# **Supporting Service Providers**

The management of the City is shared with a large number of other service providers and stakeholders. These include Blantyre Water Board, ESCOM, Malawi Posts Corporations, Malawi Housing Corporation, Ministry of Lands and Housing, Surveyor Department, Ministry of Works, Roads Authority, Ministry of Health and Population, Malawi Police Service, Ministry of Education, Ministry of Local Government and Rural Development, Civil Society Organisations, Faith Groups and other charitable organisations.

# **Summary of Institutional Issues**

The Blantyre City Council as an institution is committed and motivated to discharge the functions allocated to it through the provisions of the Local Government Act. It has taken up the functions devolved to it, yet does not receive the requisite financial contributions from central government to fulfil these obligations. Financial pressure also plays a part in the fact that there are nearly 900 vacancies on the city' staff complement.

The many challenges faced by the city is complex and difficult to meet. It requires skill and experience to, with limited resources, develop innovative ways to deal with these and make the city sustainable at all levels. An underpaid, understaffed and overwhelmed staff complement is likely to find it difficult to deal with the very difficult situation the city find itself in.

The consultant team appreciates the complexity and scope of the task at hand namely to develop, manage and maintain the city in a sustainable way with the meagre resources that are available.

The legislative framework together with policy guidance and norms and standards to support it is an extremely important enabling component to successfully manage and develop the city. These create the mandates and provide guidance to the City Council and residents alike on how to live sustainably in an urban environment. While the national legal framework is dealt with under section 3 of the plan, local level legal frameworks and guidance are dealt with here.

# 4.5.3.1 Blantyre City By-laws

BCC implements a number of by-laws which are also important development control tools. Some of these were gazetted in 2003 and other in 2020 and there is some overlap. The key aspects of importance for the structure plan are discussed below.

### Sanitary Arrangement By-Laws (2003)

This by-law deals with the standard of sanitary accommodation to be provided and determines the extent of provision of different types of sanitary facilities to building sites, recreational facilities and buildings where more than 6 people regularly work. The by law further determines that no pit latrine is constructed within 450 metres of any building, within 1.5 metres of any plot boundary, or within 30 metres of any stream, pool, dam, well, borehole, spring or other underground water supply. It further enables Council to, by way of resolution, prohibit the construction of pit latrines in all or any part of the Council.

### Plot Allocation in Township and Improvement Areas. (2003)

This by-law establishes a plot allocation committee, spells out the criteria to be used by the plot allocation committee to allocate plots and regulates procedures and fees for such an application. It further deals with the transfer of a plot to another person and the transfer of plots in deceased estates. It determines that the development of plots in Townships and Improvement Areas shall involve the construction of habitable dwelling units, safe community services buildings and structures in compliance with the provisions of the Council's Building By-laws and the Public Health Act and any regulations made thereunder. It further requires that, prior to undertaking any plot development, the Council be notified so that the Council may ensure that the developer complies with the provisions of the by law.

It determines the plot size range as being 224 to  $400m^2$ , the building lines (front – 4.5m, rear – 3m and sides 2.5 – 3m) and maximum coverage (33%). It further regulates design of temporary or semi-permanent structures, building activities according to the Physical Planning Act,

maintenance of roads and drains in front of the plot, refuse management and limits occupation to one household per plot.

Finally, it deals with registration of a lease or title, the obligation of council to provide layouts, registration with the registrar and the obligation to plant and maintain trees.

### Peddlers. (2003)

This by-law defines a peddler as any person who goes from place to place selling or exposing for immediate delivery any goods or foodstuffs which he carries with him or on a tricycle or handcart and the word "peddle" has a corresponding meaning. It determines that peddling requires a license and limits peddlers from selling within 100 metres, in all directions, of the boundary of Blantyre Market; within 300 metres, in all directions, of the boundary of Limbe Market; within 300 metres, in all directions, of the boundary of Soche Market; within 300 metres, in all directions, of the boundary of Soche Market; within 300 metres, in all directions, of the boundary of the Exchange at Ginnery Corner; 300 metres radius of any site where one or more food stalls have been erected by the Council; 300 metres radius of the junction of Chipembere Highway with Kasungu, Crescent; 300 metres radius of the Clock Tower situated at the junction of Chipembere Highway and Chileka Road; and 300 metres, in all directions of the boundary of the Shire Highlands Hotel, Limbe.

The peddling of fruits and vegetables is prohibited in the following areas— (a) Victoria Avenue, Blantyre, from Mount Soche Hotel to the Town Hall; (b) Independence Drive, Blantyre, from Victoria Avenue to the District Commissioner's Office; (c) Churchill Road, Limbe, from the offices of Imperial Tobacco Group (ITG) to Partridge Avenue; and (d) within 20 metres of any of the above roads on any land, side road, lane or path.

It determines that no fresh meat, fresh fish, dressed poultry, or any cooked or otherwise prepared or processed foodstuffs which has not been cooked, prepared or processed in a premises licensed for such purpose by the Council.

### **Refuse and Rubble Disposal (2003)**

The by law regulates general cleanliness and the obligation to use sanitary, private or public conveniences. It further requires every owner or occupier of a premises to have an approved type of refuse receptacle with a cover and to place all refuse (with the exception of rubble or garden refuse) in such receptacle and requires such receptacle to be placed at a place convenient for council to collect on determined dates. It specifically states that no person or organization shall deposit or cause refuse to be deposited in a stream, river, or any water course or any public place. It also prohibits rubble from being deposited in or upon any street, public place, open  $75 \mid P \mid a \mid g \mid e$ 

space or vacant land or on any plot, land or premises except with the written permission of the owner of such plot or land, in any water course or reservoir; or on any other place not designated for that purpose by the Council. It provides power of prosecution to Council and sets penalties for offences, albeit an insignificant amount.

#### Trade and Business (2020)

The trade and business by law requires all persons engaged in listed trades and occupations to obtain a license from the council to carry on such activities. It specifies the application procedure, requires annual renewal and payment of registration fees, prohibit transfer of licenses and requires such traders to keep the premises from which they trade in a clean and sanitary condition. The first schedule lists 19 types of trade requiring a trade license and the second schedule specifies the fees for such licenses for 39 occupations, most of which can be regarded as informal and small types of businesses or occupations. The provisions of this by law is the same as the 2003 version.

### Liquor Licensing (2020)

The by-law was substantially changed from the 2003 version and determines that no person may sell liquor without being in possession of a valid license to do so. Such person must also be in passion of a business premises license prior to applying for a liquor license. Liquor licenses are subject to conditions but as general conditions may not sell liquor to persons under the age of 18 or to mentally incompetent persons. It further determines the minimum requirements for the packaging o liquor to be sold, minimum standards of the premises where it is sold and prohibits weapons on liquor premises. It further determines that liquor may not be sold from residential premises and that an authorised representative from council may inspect such premises to ensure compliance with the by law.

#### Market and Vending (2020)

These by laws, in the first schedule, designate 35 **public markets** throughout the city and determines that a person may not sell goods at these markets without having paid the prescribed fees. It further determines that no person may operate a private market without being authorised to do so by council.

Failure to pay market fees may result in impoundment of goods, a surcharge and eviction from the market. It further regulates opening hours, prohibits the sale of certain (dangerous) goods such as fire arms, explosives, liquid fuels, liquor and pharmaceutical products. Council may erect stalls and shops at the markets and let it out on conditions that council may determine. Where no structures are provided, council may consent to vendors constructing kiosks or other structure to the specification of council but may not sub-let, sell or transfer such kiosk without the permission of council. It requires insurance of goods and seek to control fires in public markets to designated places only. It regulates cleaning of food and perishable goods to designated areas and seek to prevent people that may suffer from infectious disease to trade from the market. It seeks to prevent the sale of unwholesome food and prohibits the sale of goods on a roadway, pathway, stairway or passage or over any drain within a public market. Save for live domestic fowls, livestock are prohibited in a public market.

Sanitary and hygiene requirements are determined and further requirements relating to weights and measures, compliance with council directions, separation of areas for specific foods or goods, and arrangements around eviction of non-compliant vendors or traders as spelled out. Market committees are established and its composition and functions determined.

However, with respect to street vending, the only reference to **street vending** is a single statement that "A person shall not engage in street vending within the City of Blantyre unless he has been given prior permission by the Council. No areas for street vending are determined and no directives for application for permission to do street vending is provided. In essence these by laws are largely the same as the 2003 version.

### Public and Private Cemeteries (2020)

These by laws determine the procedure and requirements for establishing private cemeteries and the requirement and issuance of burial permits in public cemeteries. Citizens of Blantyre may request council to assist with digging a grave and may also, against payment, apply to council to reserve a grave in any Class A cemetery for a period of no more than 5 years. Such reservations may not be transferred and may be relinquished by the holder at any time.

The by laws further requires the CEO to keep a register of grave space in all Class A cemeteries in the city and make rules pertaining to grave space, number of bodies, grave filling, opening hours, erection and maintenance of graves and tombstones, exhumation of bodies, detention of straying animals and prohibits certain acts related to maintaining the dignity of cemeteries.

### Nursery Schools (2003)

The nursery school by laws determines that nursery schools are not allowed to operate before having obtained a license to operate from council. It provides an indication of the key issues that council will consider in deciding if the application is compliant with good practice and places emphasis on the suitability of the premises, the fitness of the carer, number of children relative to the facilities, adequacy of qualifications and staff, safety equipment and adequate feeding arrangements. Council may impose the conditions it sees fit and the applicant will be required to accept the conditions, unless the applicant decides to appeal the decision.

Minimum standard requirements as to premises, staffing, health, medical care and control of a nursery school are set out in the Fifth Schedule to the By-laws.

# Food Business (2020)

No person may establish or carry on a food business unless s/he has a food business licence issued by the Council. This must be applied for in a prescribed manner and council may refuse to grant such application if the premises is not suitable or the owner or proprietor suffers from an infectious disease.

With the sale of food potentially a risk to health, the by laws sets conditions that must be complied with when selling meat or fish, or any other food for that matter. It provides for cessation of food sales during an outbreak of disease and sets minimum requirements for the premises where food is stored, prepared and sold in terms of ventilation and lighting, washing facilities, sanitation, waste management, personal hygiene of staff and training of food handlers.

It further sets standards for food handling in terms of food packaging, cleanliness and protection of food, prohibition of animals at food premises, transportation of meat and mobile restaurants.

# **Control of Animals (2020)**

The by laws determine what animals a person may keep in a residential area. It limits animals that may be kept to three types with the maximum of each listed in part 2 of the first schedule as 3 dogs, 2 cats, 15 chickens, 15 guinea fowls, 10 rabbits, 15 ducks, 30 pigeons, 15 turkeys and 30 quails. Animals not allowed in residential premises are donkeys, horses, mules, cattle, crocodiles, pigs, goats, sheep, snakes, bees, any game species and any other such like animal to the above mentioned list by whatever description. However, on a plot zoned for urban agriculture, animals may be reared and kept provided that s/he has obtained a town planning permit.

Contravention of the provisions may lead to impoundment of excess animals with a penalty of K2000 for each impounded animal. Animals must also be kept under control and be kept healthy. The by law further determines custody and disposal of impounded animals and indemnify council against claims for compensation when animals are impounded and disposed of.

### NGO Registration (2020)

These by laws determines that all nongovernmental organizations and affiliated nongovernmental organisations are not allowed to operate unless registered with council. An application for registration must be accompanied with a work plan for the consideration and approval of the Council; a signed board resolution of the organization authorizing registration with the Council; a certificate of registration issued by both the Council for Nongovernmental Organizations in Malawi and the Non-Governmental Organization Board; and the constitution of the organization.

Registration is valid for a year and council will consult the NGO Board when making a determination on the application. Council may exempt a NGO from the provisions of this by laws and issue a certificate of exemption. A NGO shall, on an annual basis, submit performance returns, estimates of its income and expenditure for consideration and approval, a report of its activities, and any such other information that the Council may consider to be relevant.

# Public Parks and Forestry (2020)

The Public Park and Forestry by laws seek to regulate what people do in public parks and how they behave. It list a large number of activities that are prohibited in public parks and these are mainly related to cutting of trees and vegetation, possession of fire arms and offensive weapons, set off of fireworks, damage to any component of a public park or its amenities, possession and consumption of alcohol, lighting of fires, organised sporting or gaming activities, parking of vehicles, providing access to dogs, protection of wildlife and recreational activities.

Perhaps more important to the structure plan are the provisions dealing with preventing encroachment or taking possession of a park, the release of polluting substances into parks and the disposal of waste in parks.

# 4.5.3.2 Planning Norms and Standards

# Town and Country Planning Guidelines and Standards

This is a set of guidelines, specifications and standards to be followed in undertaking social and economic development in Malawi. The basic aim of these guidelines and standards is to ensure that physical development takes place in an orderly, coordinated and efficient manner.

### National Building Regulations for Small Single Storey Dwellings

The Blantyre City Assembly uses the National Building Regulations for Small Single Storey Dwellings (which has also not been adopted formally). This leaves a serious gap in terms of design standards and regulations for other structures and construction and material standards.

### Procedures for the Management and Administration of Traditional Housing Areas

THAs were initiated by the Government in the late 1960s with a view to providing partially serviced plots in urban areas where people in the lower income groups could be permitted to construct their own houses using traditional materials in well planned and attractive surroundings.

### **Purple Area Regulations**

As a result of technical discussions that took place during 1969 on the standard of development in Blantyre, the Planning Committee identified certain "areas of special importance" within which, they resolved, all new development must be of a particularly high standard.

# 4.5.4 SUMMARY OF LEGAL AND INSTITUTIONAL ISSUES

The review of the existing local legislation, policies, norms and standards reveals a comprehensive set of legal tools available to aid and guide planning and development control and the administration and management of the City. There are, admittedly, some gaps in the policies norms and standards, especially in terms of building regulations for buildings other than simple single storey dwellings. The main problem, however, seems to be an inability to effectively apply and enforce legislation, policies norms and standards on a citywide scale. Reasons for this failure are many and amongst others include lack of funds, lack of institutional capacity, lack of political will to enforce legislation (and, sometimes, blatant interference from politicians (or other powerful individuals), lack of alternatives e.g. of adequately planned land to accommodate squatters or suitable facilities for hawkers and vendors. Legislation without enforcement is meaningless and urgent attention is required to enable effective enforcement of legislation, policies, norms and standards.

The issue of customary land and the jurisdiction and control over customary land within the city limits is like in the previous structure plan, still a thorny issue that has been the cause of much unplanned and uncontrolled settlement in the city. It is probably one of the most serious problems that undermine the ability of the City Council to curb unplanned and uncontrolled development within its area of jurisdiction.

# 4.6 BLANTYRE ECONOMIC PROFILE

Blantyre is one of four major cities in Malawi. It serves as the main commercial centre in the country and has a diverse economy. The city is an important hub for the financial sector, trade and services, education, medical services, and manufacturing.

Several large business headquarters or large branches of firms are based in Blantyre. These companies include Standard Bank of Malawi, First Merchant Bank, Deloitte, PWC Advisory Services, Air Malawi, Engen Malawi, Unilever South East Africa, Central East African Railways Company, Malawi Iron and Steel Corporation, Macsteel Malawi, Castel Malawi, Tea Brokers Central Africa, Shoprite Trading, Imperial Motors, and Protea Hotel Blantyre Ryalls.

Blantyre also has several centres of tertiary education. These include the Malawi University of Business and Applied Science, the Malawi University of Science and Technology, Blantyre International University, The Catholic University of Malawi, Kamuzu College of Nursing, and UNICAF University. These institutions provide Blantyre with the consistent flow of skills required for the local economy.

The city is well positioned to continue to play an important role in the Malawian economy. Although the urbanisation of Blantyre is still in its early stages, it is expected to accelerate. Therefore, well-planned urbanisation was identified in MW2063 as one of three priorities for spurring local economic growth, particularly in areas such as agribusiness, logistics, and MSME development.

### 4.6.1 MANUFACTURING

Business in the manufacturing sector in Blantyre tends to be larger and more established than other businesses in the city. Approximately half of manufacturers in Blantyre (48.9%) tend to be limited liability legal entities with varying ownership structures, including large corporation head offices or branches. Furthermore, manufacturers in Blantyre tend to be registered businesses (96%), comply with VAT registration (91%), and have bank accounts (89%). Some 26.1% of manufacturers have been in operation for more than 25 years. On average, every manufacturer employs about 88 employees of which 72 are full-time employees and 16, part-time employees.

The manufacturing sector in Blantyre tends to import a significant share (47%) of the products required for operations. Some 26% of such products are procured at the national level. Logistics is therefore a critical operational consideration for local manufacturers.

Figure 9 shows the product categories of the surveyed businesses in the manufacturing sector. This sector is dominated by the food products industry (25.36%), the furniture industry (15.94%), and the chemicals and chemical products industry (14.49%).



# Figure 9: Manufacturing Product Categories

The manufacturing sector is a critically important sector for Blantyre's economy. It is an important job creator, employing about 88 employees per business. Furthermore, manufacturing encourages the growth of ancillary businesses and services such as raw material suppliers, logistics companies, and maintenance companies, which assists in developing a more resilient and diversified local economy. The ability of the sector to export products and sell products nationally reduces the reliance of these businesses on the local Blantyre market.

# 4.6.2 RETAIL AND WHOLESALE

Retail and wholesale businesses are probably the most numerous type of formal business in Blantyre. These businesses tend to be small establishments that, on average, employ about five employees of which four are full-time employees and one a part-time employee. These businesses can, however, range from a one-man concern to major retailers or wholesalers employing about 150 employees.

Most businesses within the retail and wholesale sector in Blantyre (73%) tend to be sole proprietorships owned by one person or a small group of people who only own one business (84%). Retailers and wholesalers in Blantyre tend to be registered businesses (96%), comply with VAT registration (79%), and have bank accounts (72%). The majority of retailers and wholesalers have been in business for less than 10 years, with some 44.5% operating for less

than five years and an additional 23.9% in business for more than five years, but less than 10 years.

The majority of retailers and wholesalers (83%) are highly reliant on customers in Blantyre. The retail and wholesale sector in Blantyre tends to import a significant share (40%) of the products required for operations while procuring 39% of stock in Blantyre. Logistics is therefore a critical operational consideration for local manufacturers.

Figure 10 shows the product categories within which retail and wholesale businesses operate. The retail or wholesale sector is dominated by groceries (19.81%) and other products (19.65%). In addition, 12.68% of respondents indicated that they sell vehicles or parts.



Figure 10: Wholesale and Retail Product Categories

### 4.6.3 INFORMAL TRADE

The informal trade sector is dominated by a large number of small, one-man businesses. In most cases, an informal business only employs one person, with about 36% of businesses employing a second person on a part-time basis.

The majority of informal traders enterprises (81.5%) are sole proprietorship legal entities owned by one person or a small group of people who only own one business (98%). Informal traders in Blantyre tend not to be registered businesses (8%), comply with VAT registration (6%), or have bank accounts (8%). The majority of informal traders surveyed have been in business for less than 10 years, with 51% operating for less than five years and an additional 15.1% being in business for five years or more, but less than 10 years.

Informal traders are central to Blantyre's economy. The majority of informal traders (76%) procure their supplies from within Blantyre and additional 11% from the Southern Region. 83 | P a g e
This illustrates the strong upstream linkages that informal traders have with local formal businesses, which may include local manufacturers, wholesalers, and retailers.

The word cloud below shows the products most commonly sold by informal traders. The majority of informal traders sell everyday consumables such as groceries, charcoal, food, fruit, maize, potatoes, vegetables, and fish. They also sell clothes, hardware, and airtime and provide services such as cutting hair, transport, or transferring money.

accessories airtel bags barbershop beef building charcoal chips **Clothes** cooking cosmetics dresses drinks dry electrical electronics farm fish flour food fruits furniture **groceries** hair hardware liquor maize materials meat mobile money paint phone plastic plumbing potatoes products receiving repair seller selling sending service Shoe soft sweet tailoring tomatoes transporting vegetables

#### Figure 11: Word Cloud Showing the Product Offering of Informal Traders

Blantyre has several market areas equipped with a mixture of council-provided infrastructure, including Blantyre Market, Limbe Market, Ndirande Market, and several other neighbourhood markets. Informal trade is, however, not limited to these markets. It may also take place along busy roads and neighbourhood streets or from vehicles.

Informal trade is essential for those who cannot find formal employment. To support informal traders, the council needs to provide clear policy guidance on where trade may take place. In addition, existing markets require maintenance and new formal markets need to be developed. Due to the high reliance on pedestrian traffic, it is critical that informal trading areas be supported by transport nodes such as taxi ranks.



#### **Plate 3: Informal Sector Activities**

The informal sector plays an important role in the Blantyre economy. This sector is diverse and encompasses several activities other than trade. These include:

 Small-scale sustenance farming takes place across Blantyre. Maize is grown on open parcels of land, and fruit is picked from various trees that grow naturally in the area (e.g. mango and banana trees). There are also several nurseries next to riverbeds.

- Some riverbeds are being used to extract river sand.
- There is a lot of small-scale manufacturing taking place within the informal sector. This ranges from arts and crafts to furniture, and from headstone masons to seamstresses and dressmakers.
- Services range from the activities of shoe polishers and repairers to those of car washers and people selling their labour for gardening, cleaning, and other domestic work.

#### 4.6.4 OTHER ECONOMIC ACTIVITIES

#### 4.6.4.1 Tourism

Blantyre has some potential for tourism, but the tourism product is underdeveloped. The city has played a significant role in the development of Malawi and the region. It has several historical buildings, including the Old Magistrate Building and the Old Town Hall, although many require basic maintenance and restoration. The Old Tax Office has been converted into a tourism information centre but does not appear to be operational. All these buildings are located in the Blantyre CBD.

The City has limited tourism products, but there are existing tourism products that can act as the catalyst to develop the local tourism industry. These include, but are not limited to, Kamuzu Stadium; the International Conference Centre, Hotel and Casino Marina; the Malawi Museum; and the Trade Grounds where major events can be hosted. All these tourism products are in the Ginnery Corner and Chichiri.

There are several major hotels in Blantyre. These include the Hotel Victoria, Sunbird Mount Soche, the Marriot Hotel Blantyre, the Crossroads Hotel, the Malawi Sun Hotel, and the Amaryllis Hotels. Most of these hotels are located in the Blantyre CBD. Most offer their clients a range of services, including hospitality (restaurant and bar) and dry-cleaning.

The hospitality industry appears to be concentrated around the Blantyre CBD and areas that border it such as Mandala and Sunnyside.

Blantyre has a few establishments that sell the arts and crafts of local artists. These include La Caverna, Café Mandala, the Jacaranda Cultural Centre, and Maison de la France. These establishments are all located within Mandala.



#### Plate 4: Arts and Crafts

#### 4.6.4.2 Faith Establishments

Religion, particularly as preached by Scottish missionaries, has played a significant role in Blantyre's historical development. Today, the city is home to many religions, and places of worship for diverse faiths can be found in Blantyre. These include St Michael and All Angels Church, Limbe Cathedral, Al Taqwa Masjid, Hindu and Buddhist temples, and an array of other churches spread across the city.



#### Plate 5: Some Religious Buildings

#### 4.6.4.3 Logistics and Transport

Logistics and transport play an important role in Blantyre's economy. Several large companies, including Coca-Cola and Castel, have significant operations in Blantyre. The transport sector is dominated by three types of informal transport services, namely motorbike taxis, metred taxis, and minibus taxis.

#### 4.6.5 BLANTYRE SKILLS PROFILE

This section offers insights into the skills available in Blantyre. It also focuses on identifying areas of skills that industry requires.

The Table below shows the strength of skills within surveyed businesses in Blantyre. Most business have strong or very strong skills in marketing and sales (94%), purchasing and procurement (93%), operations and technical services (91%); and transport and distribution (87%). Skill areas where certain businesses indicated that they have weak or very weak skills concern computer and information systems (29%), research and development (29%), staff development and training (20%), and finance and accounting (15%). The council may consider opening discussions with local higher education institutions to lobby for the development of these skills.

Skills	Very weak	Weak	Strong	Very strong
Marketing and sales	0%	6%	43%	51%
Computer and information systems	6%	23%	47%	24%
Transport and distribution	2%	11%	47%	40%
Staff development and training	4%	16%	48%	32%
Finance and accounting	1%	14%	60%	25%
Operations and technical services	2%	7%	46%	45%
Research and development	5%	24%	47%	24%
Purchasing and procurement	1%	6%	45%	48%

#### Table 6: Skills Strength in Businesses (%)

#### 4.6.6 BLANTYRE ECONOMIC AVANTAGES

Blantyre is a well-established city that has extensive socioeconomic infrastructure and assets. These include:

 Blantyre has several tertiary education centres, including the Malawi University of Business and Applied Science, the Malawi University of Science and Technology, Blantyre International University, The Catholic University of Malawi, the Kamuzu College of Nursing, and UNICAF University.

- These academic institutions provide Blantyre with the consistent flow of skills required for the local economy.
- Some academic institutions have indicated that they have insufficient housing for their students. The council may consider working with these institutions and private investors to alleviate this issue.
- Blantyre has one of the largest hospitals in the country, Queen Elizabeth Central Hospital.
- The Kamuzu stadium is a 40 000-seat facility that is the home ground of the Mighty Wanderers FC and the FCB Nyasa Big Bullets, Blantyre's local soccer teams.
- Blantyre hosts an annual auction for tobacco, Malawi's top export product.
- The Blantyre Trade Fair and Commerce Centre is a large facility that enables Blantyre to host events.
- From Blantyre International Airport, there are direct flights to Lilongwe, Johannesburg, Dar es Salaam, and Addis Ababa.

#### 4.6.7 SUMMARY OF ECONOMIC ISSUES

Blantyre has a well-established, diverse economy. The three critical sectors are retail and wholesale, manufacturing, and informal trade.

The manufacturing sector in Blantyre is an important job creator, employing large numbers of employees within each business. Manufacturing also encourages the growth of ancillary businesses and services such as raw material suppliers, logistics companies, and maintenance companies; these, in turn, stimulate other industries in the economy. Furthermore, manufacturing creates the opportunity for Blantyre to export its products. To support manufacturers, attention will have to be given to local road infrastructure. Given the size of the food products industry, opportunities may exist to support this industry, including through ensuring adequate storage facilities, transportation networks, and utility access.

Retail and wholesale probably employ the largest number of formal sector employees. The majority of these businesses are small, family-owned businesses that provide a relatively stable income to the households in question. To support local retail and wholesale, the council will need to focus on improving local logistics and transport infrastructure. Most retailers and wholesalers believe that a logistics park or hub would be of great benefit for their business. Special attention needs to be given to transport nodes, while road and pedestrian access to these businesses remain critical to operations.

Informal trade is essential for those who cannot find formal employment. To support informal traders, the council needs to provide clear policy guidance on where trade may take place. In addition, existing markets require maintenance and new formal markets need to be developed. Due to the high reliance of this sector on pedestrian traffic, it is critical that informal trading areas be in proximity to transport nodes such as taxi ranks.

The Blantyre economy is supported by a wide range of other industries, including tourism, hospitality, arts and crafts, agriculture, logistics and transport, and the informal sector.

The Blantyre economy has several well-defined nodes within which these economic activities take place. Blantyre CBD and Limbe CBD are the two main economic nodes in Blantyre. These CBD nodes are bordered by major informal markets adjacent to taxi ranks. The nodes are connected via Ginnery Corner and Chichiri, an area that has significant retail as well as other socioeconomic infrastructure (e.g. the University of Malawi, the Malawi Museum, Kamuzu Stadium, the Queen Elizabeth Central Hospital, the Blantyre Trade Fair, commerce centre, shopping malls, retail centres, and office parks).

Skills shortages remain an area of concern within Blantyre. Areas where surveyed businesses indicated that they have weak or very weak skills are computer and information systems (29%), research and development (29%), staff development and training (20%), and finance and accounting (15%). The council should consider opening discussions with local higher education institutions to lobby for the development of these skills.

Further economic development in Blantyre will depend on the council ensuring appropriate spatial planning for the area as well as for the various neighbourhoods of the city. In addition, the council will need to reduce red tape and improve the ease of doing business within Blantyre.

### 4.7 SUMMARY OF KEY CHALLENGES AND DRIVERS OF CHANGE

The table below provides a summary of the key spatial challenges that the structure plan needs to address and of the key drivers of change that the plan must respond to. These were derived from the status quo investigation as well as from the strategic direction workshop with Council and staff as well as other sectoral consultation activities.

With this structure plan following on from the previous structure plan, a comparison of the key issues and underlying causes from the previous plan with the key challenges and drivers of change reveals that they remain basically the same. This is an indication that the 2000 – 2015 Blantyre Urban Structure Plan did not succeed in bringing about the key changes and improvements in the development of the city as anticipated by the plan. The key issues identified then were (1) the slow pace or low level of economic development, (2) inadequate institutional capacity, (3) precarious financial position of service providers, (4) Insignificant provision of housing opportunities or even planned land, (5) Poor governance, (6) poor coordination between the main stakeholders, (7) insufficient environmental protection, (8) poor road maintenance, planning, traffic control and parking, (9) unsupportive legislation, lack of forward planning and lack of enforcement, and (10) insufficient provision and maintenance of social infrastructure and utility services.

The key challenges and drivers of change currently facing BCC and its management are:

Key Challenge	Drivers of Change the plan must respond to	
~ To accommodate the growing population of the city in a planned and sustainable manner taking into consideration that 63% of the city's population already reside in unplanned areas	<ul> <li>The number of households are projected to grow from 223 651 in 2024 to 328 687 by 2039, a gain of 68% on the current number of households in the city</li> <li>This translates to a need for an additional 105 035 housing opportunities in the city.</li> <li>There is a treat that this need will largely be accommodated in unplanned settlement</li> </ul>	
<ul> <li>To regain control over unplanned settlement and enforce the law.</li> </ul>	<ul> <li>The role of city chiefs in land allocation</li> <li>The transfer of land from the Ministry of Lands to BCC</li> <li>The expropriation of unused privately owned land</li> <li>Timeous forward planning to counteract the need to settle spontaneously or illegally.</li> </ul>	
~ To change the morphology of the city to be more sustainable and	<ul> <li>Low residential density leads to increased unit cost and urban sprawl</li> </ul>	

Table 7: Key Challenges and Drivers of Change

favourable to the poor and marginalised citizens.	~ The need to travel to a few central places to work or access government services impacts mobility and is expensive	
	~ More choice of settlement options for all are needed.	
<ul> <li>To ensure that the population of the city has access to a full range of social and community services to the required standards as set by the government.</li> </ul>	<ul> <li>Unplanned settlement, by definition, does not lead to the allocation of enough land for the entire spectrum of land uses required for integrated neighbourhoods.</li> <li>Where new townships are planned and developed, irrespective by who, a set of guidelines and standards must be enforced by BCC to ensure long term success.</li> </ul>	
<ul> <li>To find a way in which to accommodate the entire affordability spectrum in a planned fashion.</li> </ul>	<ul> <li>Revise the way in which we provide land and services and develop specific products for the entire affordability spectrum. Failure will simply lead to more unplanned settlement.</li> <li>Malawi was the origin of site and service solutions, this could satisfy part of the demand</li> <li>Experience elsewhere in Africa indicates that higher density residential solutions becomes more acceptable over time and this option should be increasingly pursued.</li> </ul>	
~ To contribute to local economic development	<ul> <li>Local economic development also suffers from unplanned settlement in the sense that inadequate land is planned for commercial and industrial land use</li> <li>Revise layout standards to ensure that adequate provision for commercial and industrial land is made within neighbourhoods and not only at large scale commercial and industrial areas.</li> <li>Ensure that adequate large scale provision for industrial and commercial land use is made.</li> <li>Decentralise economic opportunities through the development of commercial nodes in the city's neighbourhoods and promote the ability to live, work, go to school, play and recreate within the same area.</li> </ul>	
<ul> <li>To ensure that people are not allowed to settle where they may be in harm's way.</li> </ul>	<ul> <li>Prohibit settlement within the 1:50 year floodlines of the city as determined in the risk atlas.</li> <li>Prohibit settlement within the city's conservation areas and open spaces and on steep slopes.</li> <li>Attend to effective enforcement and land use management.</li> </ul>	
~ To protect the environment from unsustainable use and degradation	<ul> <li>An integrated solid waste management system for the city is imperative</li> <li>Wastewater treatment plants needs to be upgraded to prevent polluted effluent from entering the natural river systems and groundwater</li> <li>Agriculture against steep slopes and deforestation must be attended to.</li> <li>Urban Agriculture as practiced in Blantyre needs to be redefined.</li> </ul>	
~ To enhance mobility in the city through integrating transport planning and land use planning to provide an integrated mobility network for the city.	<ul> <li>The vast majority of residents walk or cycle to their destinations, yet little provision is made for safe pedestrian and bicycle lanes.</li> <li>The city's residential densities are nearing the critical levels that can make a public transport system viable.</li> </ul>	

	~ Transit oriented development should guide land use planning or at least influence land use planning to optimise travel requirements and localise destinations.	
~ To follow the principles of good governance.	Ensure that the people of the city understand decisions, have the required information, and can trust the integrity of BCC and its staff.	
	~ Follow and enforce the rule of law without fear or favour.	
	~ Be transparent, responsive and accountable to its constituents.	

A critical assessment of the previous plan suggests that perhaps the main reason why the structure plan provisions and recommendations were not successfully implemented was insufficient detail. For example, the plan addressed efficient use of land with special emphasis on the CBDs, spelled out that redevelopment and intensification will be supported by BCC, provided a little guidance and then referred to policies that deals with design within the areas of special design importance. However, the spatial levers available to the city were not spelled out and it was not supported by adequate policy frameworks. Together with low levels of experience and human resource capacity, it was difficult to implement those provisions. This plan goes further and clearly spell out the proposals spatially, elaborate the tools that can be used by planners and city staff and provide spatial and policy guidance where appropriate. To assist with detail, policy frameworks are provided which need to be elaborated by BCC and declared BCC policy or be gazetted as BCC by-laws.

#### 4.8 SPATIAL POLICY / LEGISLATIVE CONTEXT

This structure plan represents the key spatial policy positions for the City of Blantyre. However, besides dealing with the particular local issues and challenges highlighted above, it does not stand on its own and should reflect the intent and principles of national and regional planning and development policy in Malawi while being in line with broader international policy guidelines ascribed to by Malawi. Amongst the most relevant policies and acts reviewed are Malawi Vision 2063 the Physical Planning Act, the Local Government Act, the Disaster Risk Management Act and the Land Act. The key international development frameworks reviewed and for which Malawi is a signatory are the Sustainable Development Goals, the New Urban Agenda and the Sendai Framework for Disaster Risk Reduction.

#### 4.8.1 MALAWI VISION 2063

First published in 2020, Malawi Vision 2063 (MW 2063) provides a vision for the country to be an inclusive, wealthy and self-reliant nation by 2063. It looks beyond current constraints confronting the nation to the transformation needs to support economic growth and

development. MW2063 is built on three main pillars namely Agricultural Productivity and Commercialization, Industrialisation and Urbanisation.

MW2063 outlines a number of key spatial and development principles under chapter 3.

- **Firstly**, under the **Industrialisation Pillar** it is acknowledged that urban areas and industry are inextricably linked and that industrialisation in Malawi has stagnated due to inefficiencies in energy and transport provision, poor standards leading to non-competitive products on international markets, lack of appropriate skills and uptake of technology, high cost of doing business and deficient enabling infrastructure, low access to export markets, an unpredictable policy environment and a non-conducive environment for the growth of SMEs.
- Secondly, under the Urbanisation Pillar it is acknowledged that urban centres are critical for the economy in the sense that they provide jobs, markets and efficient land use. To harness the benefits of urbanisation, emphasis is placed on a number of key issues that are also highly relevant for the formulation of the BUSP. These can be summarised as follows:
- ✓ Cities and towns anchored by sustainable economic activities such as tourism, manufacturing, mining and agriculture;
- ✓ All cities and towns shall have master plans that adhere to spatial, economic, and social standards that provide citizens with an all-inclusive quality of life;
- ✓ Integrated development planning with focus on smart cities and world class urban centres;
- ✓ Laws enacted and enforced to ensure that all land in town/city jurisdictions belongs to the local authorities for effective planning and execution of their master plans;
- ✓ Laws enacted to halt the development of slums in Malawi;
- Masterplans shall include schemes on the construction of low and middle income housing, largely through the development of a mortgage market;
- Secondary cities will be developed to provide economic opportunities, easy communication and closer connectivity to amenities (to decongest major cities); and
- ✓ Green city space such as parks, sport fields and vegetation shall be a key element of integrated planning.

The **main enablers** required to realise the vision are:

- $\checkmark$  A mind-set change based on integrity and good leadership
- ✓ Effective and efficient governance systems and institutions with ethical conduct, no corruption and strict adherence to the rule of law;

- ✓ High performing and professional public sector for efficient delivery of public goods and services;
- $\checkmark$  A dynamic and vibrant private sector;
- ✓ A globally competitive and highly skilled human resource;
- ✓ Competitive economic infrastructure such as energy, ICT, roads railway, water and airports to promote domestic economic activity and spur foreign direct investment for wealth creation; and
- $\checkmark$  A safe, clean secure and sustainable environment.

#### 4.8.2 PHYSICAL PLANNING (AMENDMENT) ACT 2022

The legislative framework together with the regulations, policy guidance and norms and standards to support it is an extremely important enabling component to successfully manage and develop the city. These create the mandates and provide guidance to the City Council and residents alike on how to live sustainably in an urban environment.

The principal purposes of the Physical Planning Act are to make provision for physical planning and the orderly and progressive development of land throughout Malawi and the administration of the planning system.

Section 43A of the Physical Planning Act (Amended) prohibits any person from carrying out any development in Malawi without planning permission. This provision has made the whole of Malawi a planning area. This is a significant departure from the previous situation where the requirement for planning permission was only necessary in gazetted planning areas notably cities and towns. The implications of this change for planning in Blantyre are significant. This legal provision means that Blantyre City is now surrounded by districts (Blantyre, Thyolo and Chiradzulu) which have also become planning authorities and this should create favourable conditions for joint planning between Blantyre City Council and its neighbouring district councils and addressing urban sprawl in the current situation where the city is substantially developing beyond the gazetted city boundaries into the districts.

Section 45 of the Act provides for the requirement for development permission for various types of development including the subdivision of land, amalgamation of plots and change of use of land or buildings. Establishing control over subdivision has been the weak link in addressing uncontrolled development and urban sprawl in Blantyre. The requirement for development permission for the construction of utilities and services such as roads, power lines, water pipes and sewer lines (Section 45e) should help to enhance alignment of sector plans to

the Structure Plan and reduce uncoordinated planning and development between various development agencies in the city.

#### 4.8.3 LAND ACT 2016

The Act regulates the ownership and use of land in Malawi. It deals with the vesting of public land and the use of Government land, the acquisition, surrender and alienation of private land, the vesting of customary land, the acquisition of customary land for public purposes and the conversion of customary land to registered land. It also regulates the use of land and spells out the actions and penalties that may be instituted upon failure of land users to comply with regulations, directions and instructions.

Together with the Registered Land Act, the Deeds Registration Act, the Adjudication of Title Act and the Lands Acquisition Act, it regulates the registration and ownership of land other than customary land. Together with the Customary Land (Development) Act it provides for the ascertainment of rights and interests in customary land and for the better agricultural development of customary land.

Of paramount importance to Blantyre and the BUSP is the clear intention captured in MW2063 that laws are enacted and enforced to ensure that all land in town/city jurisdictions belongs to the local authorities for effective planning and execution of their master plans. The assessment of the current situation in Blantyre highlights the land administration problems arising from the multiplicity of landlords including the disruptive land allocation role by the so called "town chiefs" and the lack of land owned and controlled by the City.

Another key issue in Blantyre is the significant presence of undeveloped land due to land speculation, absentee landlords or simply the inability of the landlords to develop the land. The presence of significant undeveloped land in the city runs counter to the compact city aspirations and promotes sprawl. The Registered Land (Amendment) Act 2022 gives the power to the Minister to re-enter the land if undeveloped after two years from effective date of the Act (2022).

#### 4.8.4 THE CHIEFS ACT

Chiefs in Blantyre have played a significant contested role in land allocation and management. However the Chief's Act is clear on the role of chiefs in the City. Section 3(5) of the Chief's Act stipulates that 'No Paramount Chief, Senior Chief, Chief or Sub-Chief shall exercise jurisdiction within the area of a City, Municipality or Township except with the written approval of the appropriate Council established under the Local Government (Urban Areas) Act.'

#### 4.8.5 LOCAL GOVERNMENT ACT

The Local Government Act gives councils a wide range of functions and include the following:

- to make policy and decisions on local governance and development for the local government area;
- to consolidate and promote local democratic institutions and democratic participation;
- to promote infrastructural and economic development through the formulation, approval and execution of district development plans within its jurisdiction;
- to mobilize resources within the local government area for governance and development;
- to maintain peace and security in the local government area in conjunction with the Malawi Police Service;
- to make by-laws for the good governance of the local government area;
- to appoint, develop, promote and discipline its staff;
- to cooperate with other Councils in order to learn from their experiences and exchange ideas; and
- to perform other functions including the registration of births and deaths and participate in the delivery of essential local services.

Thus the council has wide powers to make bylaws for any purpose for the good rule and government of the local government area but enforcement is weak due partly to lack of capacity, willingness and the non-deterrence provided by the penalties – contravention of the bylaws attract a penalty not exceeding K2000!

The Third Schedule of the Local Government Act defines three sources of revenue for the council – locally generated revenue, government grants and ceded revenue. Of these, locally generated revenue is the most important but collection is suboptimal.

#### 4.8.6 DISASTER RISK MANAGEMENT ACT (DRM) 2023

Section 32(1) of the DRM Act gives powers to the responsible Minister, after consultations with the Minister responsible for physical planning, to declare an area a high risk area and may declare the area or any part of the area as a prohibited area for human habitation or impose limitations or restrictions on the usage of land.

Section 34 provides for relocation of people from areas that have been declared prohibited for human habitation and the protection of the vacated areas from reoccupation is provided for in Section 35.

This Act presents opportunities to BCC to reduce exposure for its population to disasters and protect fragile areas from development.

#### 4.8.7 INTERNATIONAL DEVELOPMENT FRAMEWORKS

Growing recognition of urbanisation is reflected in global frameworks for sustainable global development. Malawi is a signatory to many of these frameworks of which some of the most important and relevant for the Blantyre Urban Structure Plan are the following:

The UN 2030 Agenda 2015 – 2030 with its 17 Sustainable Development Goals (SDGs) is a shared blueprint for peace and prosperity for people and the planet. The SDGs are a comprehensive and ambitious set of goals intended not only to spur growth, but also ensure that such growth is equitably shared so as to leave no one behind. They are aimed at creating a just society where resources are sustainably utilized. Unlike the MDGs where environment was represented by a single goal, the SDGs have taken environment as a core element with at least one target in each of the 17 goals and close to half of the 169 targets relating to the environment. It is therefore unlikely that the SDGs can be achieved without environmental sustainability. The SDGs bind all nations in a pact that ensures upward movement of all countries at the bottom of the ladder through partnerships among themselves and with other first world countries in the development process.

SDG 11 aims to make cities and human settlements inclusive, safe, resilient and sustainable. It calls for renewal and planning of cities and other human settlements in a way that offers opportunities for all with targets on access to basic services and infrastructure including housing, slum upgrading, energy, transportation, waste management, green public spaces as well as safeguarding of cultural and natural heritage; reducing deaths, number of people affected and economic losses from disasters; broad based participation, strengthening urban, peri-urban and rural linkages; integrated and sustainable human settlement planning and management as well as integrated policies and plans towards inclusivity, resource efficiency, climate change mitigation and adaptation and resilience to disasters.

Malawi is a signatory to the **New Urban Agenda**. The New Urban Agenda adopted in 2016 by UN member states promotes well planned and well managed urbanisation as a powerful tool for sustainable development for both developing and developed countries. It highlights linkages between sustainable urbanisation and job creation, livelihood opportunities and

improved quality of life and highlights the imperative to incorporate all these sectors in every urban planning or urban renewal policy and strategy.

The Sendai Framework for Disaster Risk Reduction 2015 - 2030 provides Malawi and other member states with concrete actions to protect development gains from the risk of disaster. The Framework has 7 global targets including on substantially increasing the number of countries with national and local disaster risk reduction strategies by 2020; and by 2030, reduce global disaster mortality, reduction in the number of people affected, reduction in direct disaster economic loss, reduction of disaster damage to critical infrastructure and basic services, enhancing international cooperation and early warning systems.

#### 4.8.8 LOCAL STRATEGIC INTENT

The city itself has done much to set its own strategic direction and to guide itself and its staff towards improved service delivery. **The Blantyre City Council Service Charter** was formulated to improve service delivery to the residents of Blantyre. With the slogan of **"Taking the City BACK to the People"** it acknowledges that service delivery was not satisfactory, hence a social pact between the Blantyre City Council and the residents was made to improve accountability and efficiency of service delivery. It is a two-way street wherein the City Council commits itself to the provision of its services to quantifiable standards, but wherein it also sets out the rights and obligations of the residents and regulate feedback and complaint handling procedures.

Despite the fact that The **Blantyre City Council's Strategic Plan for the period 2018 – 2023** has already ended, it does articulate what the Council intended to do during this five year period to make progress towards socio-economic growth, infrastructure development and safety. The strategy formulation process included a review of international and national strategic guidance, an analysis of the Blantyre City Council (BCC) strengths and weaknesses and the opportunities and threats in the environment within which it operates and a PESTEL analysis. This resulted in the formulation of a vision statement, mission statement and a set of core values which underpinned the BCC operations. These are as follows:

#### • Vision Statement

A City of choice in the SADC region with a conducive environment where people shall take ownership, live, do business and prosper

#### Mission Statement

To provide environmentally friendly, high quality, efficient and effective demand driven municipal services in partnership with the individual and corporate residents to attain better quality lives for all residents in the City

#### Core Values

Accountability and transparency, Zero tolerance to corruption, Professionalism, Local participation, Team work, customer care oriented and gender sensitivity.

The plan had seven strategic focus areas namely (1) Corporate Governance and Management, (2) Revenue and Debt Collection, (3) Financial Management, (4) Human Resource Management and Development, (5) Information and Communication Technology, (6) Municipal Governance and Development and (7) Service Provision.

#### 4.8.9 BUSP STRATEGIC GUIDANCE

Strategic Guidance for the structure plan from the Blantyre City Council, senior officials and other stakeholders were obtained through a strategic directions workshop held on 16 and 17 August 2023. The objectives of the workshop was to reach consensus on the most important issues to become the focus of the BUSP and to use these to build consensus on the strategic direction the plan should take. The results of the workshop were detailed in the Strategic Directions Report and were subsequently presented to and confirmed by the stakeholders during a validation meeting on 18 September 2023. The key issues identified by the workshop reflect the urban reality for the city and the things the group regarded as the key focus for the BUSP. These are detailed in Table 8.

Issue	Description
Illogical Urban Form, density and Intensity	The morphology of the city still suffers from the legacy of colonialism. The key commercial areas are surrounded by low density higher income suburbs while the poor resides far from employment opportunities. The CBDs have little residential land use and becomes "dead" after business hours.
	The BUSP should focus on guiding the urban form of the city towards one integrated whole with equal opportunities for all and with increased density and intensity of use.
Availability of land, linked to land ownership, jurisdictional issues and governance.	While there is a substantial amount of vacant developable land within the city's boundary, most of it is owned by government through the Ministry of Lands. It is here where the so called "City Chiefs" still have a say over settlement decision making and land allocation. Such transactions takes place outside the normal legal avenues and substantially contribute to unplanned settlement. However, unplanned settlement also takes place on land owned by BCC as evidenced in Ndirande, Bangwe, South Lunzu, etc. In addition, large tracts of land is owned by individual land owners who fail to develop it, thereby worsening the land shortage.

#### Table 8: Strategic Emphasis

Issue	Description
	The BUSP should seek to ensure that land is available to accommodate growth within all levels of affordability through timeous forward planning and service delivery by addressing the issues of ownership, control and timeous forward planning.
Insufficient Land Delivery at all tiers	The growth in the demand of land is largely driven by rural to urban migration and new household formation. Land delivery in the city lags behind the demand for several reasons. Low levels of affordability linked to the high cost of land and services, limited capacity of BCC to plan and develop enough new townships, land constraints, the interference of other role players, and failure to adequately coordinate the key role players impacts planning and land delivery.
	The BUSP should seek ways to improve planning and land delivery to address the entire demand spectrum with special attention to strategies to accommodate the lower income population and to transform informal settlements into viable neighbourhoods. Land delivery must include the provision of basic services by BWB and ESCOM in cooperation with BCC.
Pollution, Environmental degradation and unsafe settlement	While the legal framework to protect the environment is in place, it is not enforced. In addition, ageing wastewater treatment infrastructure and the lack of an integrated solid waste management system with a landfill way past its design life pollutes the city's rivers and leads to indiscriminate disposal of solid waste. Development control is failing and unplanned settlement, often within floodlines and on steep slopes, increases pressure on the environment and place people at risk.
	The BUSP should find ways to ensure environmental resilience through improved service provision, enforcement of existing legislation and bylaws and improved forward planning and development control to protect lives and property that may increasingly be at risk as a result of climate change.
Insufficient opportunities and incentives to support local economic development	While Blantyre is seen as the commercial capital of Malawi, that position is weakening. There is a shift away from manufacturing to distribution and the informal sector plays an increasingly important role in the Blantyre economy. Deteriorating economic infrastructure such as reliable utility services and a functional road and transport system together with a shortage of commercial and industrial land for both large and small business and a poorly developed regulatory and policy environment makes Blantyre less competitive and often discourage or complicate the setting up of new business.
	The BUSP should seek to structure the city in such a way that it promotes local economic development and formal employment creation through the development of decentralised nodes, land availability, quality economic infrastructure and revised regulations to make it easier to do business.
Inadequate provision of social Services needed by the community	Unplanned settlement far exceeds planned settlement formation. This means that in most new settlement nobody thinks about, designate or plan for land to accommodate necessary social services. This includes land for educational, health and recreational purposes that should be supplied at predetermined levels or standards to satisfy the needs of the community it serves.
	The BUSP should seek to ensure that no new development in the city is allowed without meeting strict requirements for land for social services and open space, even if this will not be needed immediately and therefore seek to prevent development where this cannot be ensured.
Lack of Road and Transport Planning and Maintenance	The main emphasis with respect to mobility in the city is on roads and cars. While there is some facilities for pedestrians along some roads, there is little evidence of an integrated approach towards accommodating all modes of transport including public transport, transit, cars, pedestrians and non-motorised transport. In addition, land use planning does not complement mobility. Densities are too low to support a viable public transport or transit system while the failure to accommodate the whole spectrum of land uses in integrated and

Issue	Description
	<ul><li>planned neighbourhoods increases the need to travel to a different part of town to work, do business, recreate, shop, etc.</li><li>The BUSP should seek to provide a framework to plan for mobility rather than for roads, thereby integrating land use with mobility to make sure that the two complement each other and that we plan for people and not for cars.</li></ul>
Inadequate Revenue Generation to fund administration, maintenance and Capex.	<ul> <li>BCC's finances are under pressure and funding for strategic areas such as township development, land delivery, planning and development control, maintenance of roads and infrastructure, the acquisition of land, the development and maintenance of open space and the provision of decentralised (social) services needs to be secured, either through increased revenue collection, from the open market or from key stakeholders.</li> <li>Low density and intensity of land use in the city means that optimal revenue is not generated from the current city footprint. Funding for decentralised services should be secured from Central Government through "fiscal decentralisation" to fund the functional decentralisation of certain responsibilities from central to local government.</li> <li>Although not in the ambit of the BUSP, plan proposals should contribute to the financial sustainability of the city through reducing cost and improving revenue from the existing urban space.</li> </ul>
Increasing urban sprawl	The mean gross density of Blantyre on average is low and there is substantial underutilisation of land within the existing footprint of the city. In addition, BCC has little suitable yet undeveloped land left in its ownership. The BUSP should determine the future demand for land and all available options to maximise the efficiency of land use in the city should be used to make the city as sustainable as possible.
Emphasis on single land use zoning limits development and density	There is a realisation that the BCC has no option but to pursue densification and intensification of land use. This would include a more diverse mix of land uses in close proximity. However, care must be taken to ensure that land uses that are mixed be compatible and does not negatively influence the amenity of any area where it is applied. The BUSP should propose the most effective ways in which to densify and intensify current land use in the city with emphasis on the role of the CBDs, increasing the height and bulk of buildings in designated areas, the development of nodes with more commercial and mixed land use opportunities and promoting general densification in the low density neighbourhoods of the city.
Policies to achieve planned outcomes	In order to be able to guide the future development of the city to the maximum benefit of all its people it is important to have a policy framework to guide decision making in terms of spatial growth and development.
Urban Design	Little emphasis was placed on urban design and supporting layout principles. Guidelines for ensuring the improvement of the urban quality in the city and its neighbourhoods are required.

Having considered the international, national and local guiding principles, it is evident that the City of Blantyre faces a number of challenges to transform its spatial form to an inclusive, fair and vibrant city with suitable opportunities for all its residents while remaining economically, financially and environmentally sustainable. To deal with these challenges will require strong resolve and decisive interventions to steer the spatial framework of the city, the space wherein we live, work and play, into a direction that would best address these challenges.

#### 5.1 MISSION

The mission of this plan is "To steer the spatial planned growth and development of Blantyre towards prosperity, sustainability and resilience by facilitating economic growth, optimising city form, providing sustainable infrastructure and social services and employing risk informed land use planning to protect the natural environment and make communities and infrastructure safe and provide opportunities for all."

#### 5.2 VISION

#### "A prosperous, resilient and sustainable Blantyre."

#### 5.3 MAIN GOALS

To steer the planning interventions required to achieve the mission, the achievement of the following aims are required:

- Plan for sustainable growth within a compact city form through the formulation and implementation of policies for densification, intensification, infill, re-purposing of undeveloped and underdeveloped land portions, the revitalisation of the CBD and a strong urban edge.
- Facilitate local economic development at all levels and address the job/housing mismatch through the creation of opportunities for SMME and larger scale business development spread across the city rather than concentrated in only a few areas.
- Contribute towards the **financial sustainability** of the city through a more dense and intense spatial framework that maximises the rates and taxes that can be collected per unit of land and minimise cost of service provision and maintenance.
- Ensure **sustainable infrastructure provision** through finding a balance between the required quality standards vs development cost linked with future maintenance and climate proofing requirements. Increased density and intensity decreases the unit cost of infrastructure and should be pursued.
- Improve mobility/connectivity in the city through developing and implementing an integrated approach to mobility whereby the entire suite of motorised and non-motorised transport modes are integrated into the mobility or transportation system of the city. Land

use planning should promote integrated neighbourhoods to reduce the need for travel to satisfy daily needs.

 Promote environmental resilience and manage the risks of disaster through preventing pollution, respecting environmentally sensitive areas, halting environmental degradation and preventing people from settling in areas subject to the risks of floods and landslides.

In addition to these six main aims, it was also felt that two important cross-cutting issues need to be woven through the fabric of the plan. These are good governance and sustainability.

#### 5.4 THE STRATEGIC PILLARS

The results of the strategic directions workshop, inclusive of all the issues mentioned and the priority issues identified, led to the six strategic pillars of the plan as indicated in Figure 12. These represent the main plan objectives guiding the future spatial development and management of the city.



#### Figure 12: The Six Pillars of the Structure Plan

#### 5.5 GOALS AND SPATIAL OPPORTUNITIES

Each of the main plan objectives has a set of strategies, which, in turn relate to specific spatial levers and policy levers that can be applied to achieve the objectives. This section summarises

the strategies, sub-strategies and spatial and policy levers used in the plan. These are then elaborated in terms of spatial implications and allocations and in terms of policy frameworks to guide consistent and rational decision making.

#### 5.5.1 PURSUING A COMPACT CITY FORM

The rate of growth of the Blantyre population decreased during the period preceding the 2018 Population Census. This decline in the population growth rate is partially due to the shift of several government offices to Lilongwe following government's directive in 2004, and partly because urbanisation is happening outside the city boundary. Nevertheless, the number of households in the city is growing at a higher rate than the population. This is mainly due to new household formation which implies a faster growing housing demand.

Most residents (63%) in Blantyre live in unplanned areas. These areas developed spontaneously and lack the full range of land uses one would ordinarily expect to find in urban neighbourhoods. The gross residential density in the planned areas stood at 4.8 households per hectare (hh/ha) and at 8.95 hh/ha in the unplanned areas. These densities are low compared to a desired density of 25 du/ha.

The low densities together with uncoordinated and unplanned new development within the city boundary leads to urban sprawl. The negative impacts of urban sprawl include geographic separation of essential places such as work, home, school, and shopping, high dependence on automobiles for travel, high unit cost of providing utility services and access, habitat fragmentation and degradation, increased energy consumption and air and noise pollution.

It is projected that the number of households in Blantyre will increase from the current 223 651 to 328 687 households by 2039. If development in the city continues in the "business as usual scenario" this would lead to urban sprawl and increased peripheral development that will put the financial resources of BCC under increased pressure. In order to be able to accommodate population growth over the plan period it will require spatial and policy levers to be applied to ensure a compact urban form. The identified spatial and policy levers include the following:

Strategy 1.1: To ensure that suitable undeveloped land, whether in public or private ownership, is developed first and to its maximum potential before extending the boundaries of the City

SUB STRATEGY	SPATIAL LEVERS	POLICY LEVERS
~ Subject to the findings of the hazard models and mapping in the risk atlas and risk management strategy, identify the suitable undeveloped land within the city limits.	<b>S1</b> : Map the suitable undeveloped land portions in the city with the exclusion of those portions that are unsafe and potentially at risk of flooding and those that are too steep for development	<ul> <li>P1: Design the land use plan to accommodate the anticipated household growth over the plan period</li> <li>P2: Depending on the land availability and demand, set the BCC policy for the expansion of the boundary and control over development outside the boundary.</li> </ul>
~ Where developable land is privately owned yet remains undeveloped for more than 2 years after coming into effect of the new Land Act, invoke the legislative provisions and prescribed process to re-enter it.	<b>S2</b> : Identify the significant privately owned land portions, the development of which would contribute to the strategic goals of the plan.	<b>P3</b> : Formulate a policy according to which BCC will use the provisions of the act to obtain re-entry of such strategically located but undeveloped land.
~ Set the Urban Edge and establish a Joint Committee/s with the Blantyre, Chiradzulu and Thyolo District Councils to coordinate development around the city fringes and jointly pursue the objectives of the plan.	<b>S3:</b> Based on the calculated land requirement, set the urban edge and prepare a map indicating the urban edge at a scale and with adequate detail that local people can understand it.	<b>P4</b> : Prepare a joint policy framework on how to deal with urban type development outside the urban edge.
~ Align the objectives of BCC, Blantyre Water Board and ESCOM in order to support the provisions of the plan	<b>S4</b> : Ensure that the provision of water and electricity follows planning and that the water and sanitation project be aligned to the structure plan.	<b>P5</b> : Consult with the Blantyre Water Board and ESCOM to formulate a joint policy on the provision of infrastructure services in unplanned areas, especially those outside of the urban edge.
Strategy 1.2: To immediately townships to counteract the n	commence with the planning eed for unplanned developm	g and preparation of new lent
~ Identify the most suitable land	<b>S5:</b> Identify land (low hanging fruit) and do a town planning	<b>P6:</b> From the onset of this activity, consult with the Blantyre Water

~	Identify the most suitable land	<b>S5:</b> Identify land (low hanging	<b>P6:</b> From the onset of this activity,
	portions for this purpose,	fruit) and do a town planning	consult with the Blantyre Water
	preferably land already in BCC	layout and zoning plan for 1000	Board and ESCOM to cooperate with
	ownership.	plots to kick-start the process	BCC to prepare for the provision of
	x	and have the information	water and electricity to this new
		available to approach financial	development area.
		institutions/ donors for funding.	X
		8	

<ul> <li>To improve the quality of town planning layouts and ensure that all land uses are catered for in all new development, develop a set of standards for the City based on the national guidelines and standards</li> </ul>	<b>S6:</b> Develop an evaluation framework that can be used by the Blantyre Planning Committee and the to be established joint committees to evaluate all planning applications.	<b>P7:</b> All new development will be evaluated in terms of the Town Planning Standards and Layout Design Guidelines annexed to the Plan and this will ensure that adequate land for public open space, commercial land industrial land and land for all social services and facilities be provided in all new development in accordance with an agreed set of standards.	
Strategy 1.3: To set up a process of continuous development of local plans together with			

### Strategy 1.3: To set up a process of continuous development of local plans together with a town development programme

SUB STRATEGY	SPATIAL LEVERS	POLICY LEVERS
~ Institutionalise the task of creating new town planning layouts continuously to enable planned development, irrespective of who the developer would be.	<b>S7</b> : Prepare a development sequencing map and programme to guide development together with a monitoring and evaluation framework.	<b>P8</b> : BCC develops a framework that facilitates the planned development of the city's land through consultation with land owners, developers, and through entering PPPs where appropriate.

## Strategy 1.4: To freeze, with immediate effect, all unplanned development inside the city's boundaries as well as in the areas just outside of the boundary and enforce the provisions of the legislation.

~ As per the provisions of the legislation, and in line with the Urbanisation Pillar of Malawi Vision 2063, make it widely known that the city intends to stop all unplanned settlement and development. **S8:** Summarise the legislative and policy framework which limits any and all development, subdivisions, etc. without the approval of BCC and set the out the application procedure in laymen's terms.

**P9:** Use town planning rangers to report any unplanned development in the areas they work and severely deal with any signs of corruption related violations.

## Strategy 1.5: To revise the development rights in the Blantyre and Limbe CBDs to enable and incentivise landowners to increase the intensity of development on properties within the CBD and to develop and re-develop under-utilised plots.

~ ~	Identify vacant, undeveloped and blighted land and buildings within the CBDs and devise frameworks that would enable it to be developed or re-developed Ensure that the intensity of new development is commensurate with the compact city objective.	<b>S8</b> : Prepare a map of the land in question and define various intensity zones or policy zones. This would also partly be the areas of special design importance.	<b>P10</b> : Formulate development provisions to guide the future development including bulk, coverage, minimum and maximum height provisions and prepare policy zones with the commensurate policies.
~	Designate areas for mixed land use that would aid in revitalising the CBDs.	<b>S9:</b> Designate and map a specific area or areas in the CBDs for mixed land uses and differentiate between areas.	<b>P11</b> : Formulate a mixed land use policy that the City can use in planning decision making.

# Strategy 1.6: To define areas on the CBD fringes that are most suitable for the expansion of the CBDs in terms of current development trends, land use changes and planning logic.

~ Based on the land use survey, designate the CBD growth areas into those parts where land use change already commenced and where a conversion will have the least impact on the existing rights in the residential areas.	<b>S10:</b> Map the CBD expansion areas and designate desired land use zones in the expansion area to create a logical and workable transition between high intensity CBD land use, medium intensity transition zones and low intensity residential areas.	<b>P12</b> : Develop the CBD expansion policy, which includes the definition of development rights to be supported by the BCC for development in those designated areas.
Strategy 1.7: To improve the urban quality in the areas of the city that are most visible		

### Strategy 1.7: To improve the urban quality in the areas of the city that are most visible and contribute most to the image of the city

 To ensure that the urban quality in the City is improved, areas of special design importance are declared, to be subject to special policy guidance.
 S11: Designate and map the areas of Special Design Importance.
 P13. Formulate a set of general urban design guidelines for the areas of special design importance.

### Strategy 1.8: To provide for, promote and facilitate a general increase in density across the city and manage the densification process

SUB STRATEGY	SPATIAL LEVERS	POLICY LEVERS	
<ul> <li>To provide for general densification across the City.</li> </ul>	<b>S12:</b> Determine appropriate residential densities across the city and in all zones and areas where the current gross density is lower than 25 dwelling units per hectare.	<b>P14</b> : For all the residential areas in the city, determine the current mean densities and work out a densification policy that council can use to promote densification and evaluate densification applications.	
~ To improve the quality of the public realm in all areas of the City	<b>S13</b> : Consolidate the existing public open space system and augment this with new proposals including emphasis on continuous systems and the use of the system for NMT purposes.	<b>P15</b> : BCC will allocate adequate resources toward the maintenance of green spaces, parks, squares, promenades and recreational areas and will allow suitable revenue generating activities to take place there to augment income.	

#### 5.5.2 FACILITATING LOCAL ECONOMIC DEVELOPMENT

Given the projected growth in the population of Blantyre, the existing levels of unemployment, low levels of affordability (which fuels the housing shortage) and the high dependency on informal sector economic activities, urgent and sustained attention to local economic development cannot be overemphasised. While a structure plan cannot by itself address local economic development, spatial guidelines and policies can make a contribution towards creating a conducive environment for local economic development to flourish. Without this, the economic and financial sustainability of Blantyre is not possible. Plan provisions could also help to change the urban morphology of the city to a more effective urban form which can be supported by a public transit system. Spatial and policy levers to support local economic development are listed in Table 10. Strategy 2.1: To transform the existing fabric of the city and the town planning provisions to increase opportunities for new business activities and employment creation

SUB STRATEGY	SPATIAL LEVERS	POLICY LEVERS
<ul> <li>Identify a logical system of nodes and use zoning and bulk provisions to intensify land use in and around theses nodes</li> </ul>	<ul><li>S14: Prepare a map of the current nodes as well as a diagrammatic locality for the new nodes as the city will develop.</li><li>S15: Prepare an urban design guideline for the nodes by doing an example with principles guiding the treatment of the public realm, built form and mobility requirements.</li></ul>	<b>P16</b> : Prepare a broad Policy Framework that, would guide decision making by BCC to facilitate the transformation of the nodes to form the core of mixed use neighbourhoods with integrated residential, commercial, institutional and recreational land use with all residents within easy walking distance.

Strategy 2.2: To prioritise the development and maintenance of economic infrastructure

~	Prioritise economic infrastructure within key economic nodes and corridors Ensure that utility services are available in the CBDs, all the nodes and corridors and in all dedicated business and industrial areas. These include water supply, sanitation, reliable electricity supply and solid waste management	<b>S16</b> : Indicate the Infrastructure (roads, transport infrastructure, energy supply, water supply, sanitation and solid waste management)	<ul> <li>P 17: Nodes require infrastructure and BCC, together with its partners (BWB and ESCOM) will commit to the provision of key infrastructure at these nodes to facilitate its development</li> <li>P18: The decentralisation of industrial activity shall be promoted through flexible zoning policies in the urban district centres, and through the provision of incentives for industrial development in the urban district centres.</li> </ul>
~	BCC shall ensure that there is adequate provision for and effective use of land for commercial and industrial purposes in the city to accommodate economic growth and satisfy the projected need over the plan period In designated areas, BCC will favourably consider re- zonings to commercial and industrial land use, provided that it does not negatively impact the amenity of the areas where it is located.	<ul> <li>S17: Dedicated provision' will be made for light industrial and heavy industrial land in specific areas of the City with a view of improving distribution of industrial land through the City.</li> <li>S18: Through the Town Planning Standards and Layout Design Guidelines, BCC will ensure that all new townships also provides industrial zoned land that would be suitable to satisfy the needs of small scale industry within the neighbourhood nodes.</li> <li>Noxious industry shall be carefully controlled and monitored for its potential impact on the environment and surrounding communities.</li> </ul>	<ul> <li>P20: BCC will consider the use of both incentives and penalties in the form of rates and taxes rebates or increases depending on the situation.</li> <li>P21: To support economic development and decentralisation of economic activity, BCC shall facilitate the timeous servicing of commercial and industrial land located at the urban district and local centres as well as in new industrial and commercial nodes and areas.</li> <li>P22: Small-scale and light industrial use of land will normally be permitted at the identified district centres provided that it is properly constructed and does not impact negatively on the surrounding land use.</li> </ul>

Strategy 2.3: The City will develop an integrated transportation system that connects the key economic nodes and corridors, promotes access to key economic centres and facilitate regional, national and international connectivity.

SUB STRATEGY	SPATIAL LEVERS	POLICY LEVERS
<ul> <li>Connect key economic nodes through multimodal transportation system</li> <li>Develop public transit nodes to coincide with the nodal structure</li> <li>Provide non-motorised transport options, including pedestrian paths and cycling lanes.</li> </ul>	<b>S19</b> : Design a multi-modal strategic arterial transport network to guide future road and transport investments, inclusive of the main future public transport corridors and the NMT backbone	
<ul> <li>Develop and upgrade bus and taxi ranks adjacent to informal markets.</li> </ul>	<b>S20:</b> Identify the current and future informal markets and indicate the positions for future and current bus and taxi ranks	
~ Augment the physical infrastructure with appropriate and maintained traffic and transport markings		<b>P 23</b> : BCC shall clearly mark bus and taxi stops with bus stop signs, bus stop shelters, and improve transport user safety through pedestrian crossings, physical barriers near bus and taxi stops, lighting at night and access gates adjacent to bus and taxi stops.
<ul> <li>Provide parking in economic nodes.</li> </ul>	<b>S21</b> : Analyse the current structures of the proposed nodes and make recommendations on parking provision.	<b>P 24</b> : Evaluate the current parking requirement standards for various land uses and confirm or amend as necessary (Parking Policy)

## Strategy 2.4: BCC will create an enabling environment for informal traders to transition into formal businesses, providing them with legal status, access to resources, and essential support.

- Develop new/adapt existing informal trading regulations to enable the activity to operate in an orderly fashion and facilitate the transition from informal to formal operations while safeguarding existing rights and interests. Include home occupations in the regulations.		<b>P25</b> : Develop/revise informal trading and street trading policies and regulations to guide the activities and its management and control. This should include components such as legal status, health and safety compliance, simple registration procedures, training and capacity building, access to technology and Government support.
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~ Enable a mixed land use environment on the basis of complimentary land use being allowed to cluster together	<b>S23</b> : Consider and identify the areas where a new "mixed land use' zoning is to be allowed and promoted.	<b>P26</b> : Formulate a mixed land use policy and identify the areas where mixed land use will be promoted. This policy must deal with different land use scenarios such as within the CBDs, within the commercial nodes, within industrial areas and within residential areas.
Strategy 2.5: The city will to informal trading markets a focuses on creating a support recognizing their essential	foster the development and sus as integral components of the lo ortive and enabling environmen role in economic growth.	tainable maintenance of ocal economy. This policy nt for informal traders,
SUB STRATEGY	SPATIAL LEVERS	POLICY LEVERS
<ul> <li>The link between the Limbe Market and the Limbe station along James Road will be redesigned and developed into a pedestrian mall with facilities for hawkers and vendors</li> <li>Develop new markets that are optimally located and serviced with the required utility services.</li> </ul>	<ul> <li>S24: Determine the locality of new markets.</li> <li>Locality of the informal markets should be based on: <ul> <li>proximity to large transit nodes such as taxi and bus ranks.</li> <li>significant foot traffic within the area,</li> <li>accessibility from streets, transit nodes and formal commercial areas to maximize the visibility and accessibility,</li> <li>proximity of amenities, such as public restrooms, seating areas, and parking facilities.</li> <li>extent to which the area is serviced with water, electricity, sanitation and waste management.</li> <li>the presence of appropriate lighting to promote safety, particularly during early or late trading.</li> </ul> </li> </ul>	<ul> <li>P27: Formulate the design guidelines and standards for the future development of such markets.</li> <li>The development of such facilities, besides the availability of utility services will also be guided by the following:</li> <li>provide for variety in facilities and include vending stalls, storage facilities and specialist facilities for specialist vendors, example butchers, fish sellers, etc.,</li> <li>design stalls to cater for various size vendors,</li> <li>Avail refrigerated storage for rent.</li> <li>Ensure that fire safety and emergency evacuation protocols are in place.</li> </ul>
~ BCC will reconsider the role of and current arrangements with respect to street trading and develop regulations in consultation with the traders. Once agreed, these regulations shall be applied without fear or favour.	<b>S25:</b> Identify and map the areas suitable for street trading and prepare a street trading areas map.	<b>P28</b> : Review/Formulate a street trader policy and regulation framework.When BCC elaborates this framework it should be done in a participatory format – otherwise traders will generally not comply. Consult with the street traders, explain the rationale and seek agreement in order to formalise the areas designated for street trading update the street trading regulations to a set of regulations supported by all.

SUB STRATEGY	SPATIAL LEVERS	POLICY LEVERS
~ Enforce all laws and by-laws with respect to markets and street trading through the use of education and outreach, inspection and monitoring, fines and penalties, permitting and licensing, collaboration with others, incentives and rewards and legal action when required.	<b>S26</b> : Revise the areas identified for hawking and vending in the previous plan and map accordingly. Hawking and vending activities will normally be allowed in designated areas and subject to certain conditions	<ul> <li>P29: As a cross cutting theme across all aspects of the plan where there are specific laws, regulations, and/or bylaws, BCC resolve to enforce all laws, regulations and bylaws without fear or favour.</li> <li>P30: In implementing this policy, BCC will undertake a public information campaign which details all of these laws and regulations and through educational outreach explain each rule in laymen's terms, what is expected from the public and how BCC will deal with breaches of such laws/regulations.</li> </ul>

#### 5.5.3 SUPPORTING FINANCIAL SUSTAINABILITY

The financial sustainability of Blantyre cannot be ensured only through spatial strategies. However, a compact city form where existing infrastructure is used optimally and where the income of the city from rates and taxes are maximised should be the desired spatial future. Low densities lead to sprawling infrastructure with the resultant high capital and maintenance unit cost to construct and maintain it. Spatial strategies such as densification and intensification can help to increase revenue without having to expand existing infrastructure.

With the City finding it difficult to make ends meet and to provide new services while maintaining its existing infrastructure, it is important that the structure plan would consider land use arrangements and space making that would render the city form more effective, efficient and sustainable. Nevertheless, it is also important to integrate suitable policy frameworks with the structure plan to strengthen the city's financial position. These include the following:

Strategy 3.1: BCC will use spatial planning tools and provisions to, over the longer-term, increase council income from the same development footprint while serving more people/units with the same infrastructure at a reduced unit cost.

SUB STRATEGY	SPATIAL LEVERS	POLICY LEVERS
<ul> <li>BCC will formulate and apply planning tools such as densification, intensification and infill development to make more effective use of its land and services and increase the rates and taxes yield per unit of land.</li> </ul>	Refer to S10 and S12	
<ul> <li>BCC will support the re-development and re-vitalisation of the Blantyre and Limbe CBDs to increase value and incentivise developments that would facilitate more residential land use in the CBD in addition to business and office land use.</li> </ul>	Refer to S8 to S11	
<ul> <li>BCC will increase the development rights of plots in the Blantyre and Limbe CBD to allow substantially increased building heights, thereby enabling more intense use of land.</li> </ul>	Refer to S8 to S11	
<ul> <li>BCC acknowledge that the creation of nodes and the formulation of enabling development policies for those nodes will also contribute to the financial sustainability of the city.</li> </ul>	Refer to S14 to S15	
Strategy 3.2: Resolve the rates and ta the valuation roll.	xes issue with respect to	o rating properties in line with
~ BCC will seek, in line with the provisions of the Local Government Act, legal resolve to use the valuation role as the basis to determine the rates and taxes charges to be paid by every property owner in the city.		<b>P30</b> : BCC will investigate the feasibility and viability of combining accounts with its development partners to enable disconnection of services upon non-payment of municipal accounts.
~ BCC will seek ways to include all properties in the valuation role in line with the provisions of the local government act.		<b>P30A:</b> BCC will design a clear and appropriate communication strategy to motivate and explain the levying of rates and taxes to all.
<ul> <li>BCC will improve its account rendering and debt management ability, either through improving its own credit control systems or using private debt collection.</li> </ul>		<b>P31</b> : BCC will no longer accept non-payment of rates and taxes and will institute credit control measures to recover the rates and taxes owned to it.

Strategy 3.3: Prevent unplanned settlement			
SUB STRATEGY	SPATIAL LEVERS	POLICY LEVERS	
<ul> <li>Unplanned settlement that occur without municipal approval is more difficult to include in the formal rating system of the city. It should therefore be avoided at all cost.</li> </ul>	Refer to S5 to S8		
Strategy 3.4: Improve Stakeholder	Communication		
<ul> <li>BCC will seek the most effective ways to better communicate with its constituents with respect to rates and taxes and service delivery matters</li> </ul>		<b>Refer to P30</b> above. It is acknowledged that BCC, through its "Taking the City Back to Its People" campaign has already made progress in this regard and should carefully and with clear targets expand on this.	
Strategy 3.5: Actively improve servi	ce delivery to the rate p	ayers of the city	
~ From social media posts by residents, it seems that the payment of rates and taxes are often withheld because of perceived poor service delivery by BCC. BCC will therefore do its utmost to improve it service delivery, especially, solid waste management, sanitation and road maintenance.		<b>P32</b> : BCC will ensure that there are no service delivery related reasons residents can use to argue in favour of the non-payment of rates and taxes. These two are interdependent – services can only be delivered if full and regular payment for such services are recovered. At the same time, BCC must deliver a quality service. If there is discrepancy between what residents pay and the cost of the services then the rates and taxes must be revised accordingly. In addition, the institutional culture of BCC must be dominated by or based on a very strong desire by the organisation and all its staff towards quality service delivery.	
Strategy 3.6: Seek alternative revenue sources			
<ul> <li>Consider the introduction of other sources of revenue.</li> </ul>		<b>P33</b> : BCC will study and investigate the municipal revenue situation for Blantyre and explore and develop alternative sources of revenue to fund the city's development agenda.	

Strategy 3.7: Seeking Fiscal Decentralisation		
SUB STRATEGY	SPATIAL LEVERS	POLICY LEVERS
~ Certain central government functions were decentralised to BCC. However, this was not accompanied by the financial transfers necessary to fund the provision of these services. This has put BCC in a serious financial disadvantage and substantially contributes to its ability to fund all its needs.		<ul> <li>P34: BCC will reconcile the cost of the provision of the decentralised functions over the past 5 years versus the government transfers received for those functions and seek to negotiate those transfers to be in line with the total cost of providing those functions.</li> <li>P34A: To negotiate the ceding of specific revenue items as per the local government act such as vehicle licensing, toll gate fees, etc.</li> </ul>

#### 5.5.4 PURSUE SUSTAINABLE INFRASTRUCTURE PROVISION

This refers to the need to design and develop urban infrastructure that strikes a good balance between durability/climate proofing and affordability with due consideration of the levels and cost of maintenance that will be required over its economic life. The compact city objective has clear implications for the provision and upgrading of infrastructure services. To enable densification and intensification, especially in the CBDs, substantial services upgrades will be necessary over time. The speed at which this will be required and the sizing of sewer and water bulk supply will depend on the projected level of uptake of the increase in development rights. Existing utility infrastructure have mostly reached the end of its design life in the formal and older areas of the city and needs to be rebuilt. This is especially true for local access roads and the four waterborne sanitation systems with their respective WWTPs.

For greenfield development, the implications for the construction of infrastructure services is obvious. However, the spatial allocation of new development phases must take due cognisance of a gradual expansion of services and carefully assess the need for expensive new bulk infrastructure.

Nevertheless, it is acknowledged that it is more effective to re-develop existing infrastructure that is near to the end of its design life than to develop completely new networks. Spatial and policy levers pertaining to sustainable infrastructure include the following:

### Table 12: Strategic Goal 4 – To enhance the Sustainability and Affordability of Physical Infrastructure.

Strategy 4.1: While renewing infrastructure, resize the new infrastructure in such a way that it could accommodate revitalisation of the CBDs and general densification and intensification efforts.

Sub Strategy	Spatial/Infrastructure Levers	Policy Levers
~ Define the areas for revitalisation/ re- development, densification and intensification and calculate the potential uptake that may be	<b>S27:</b> Based on the expected uptake, devise an infrastructure development plan to deal with the CBDs, the CBD Fringes, the residential areas and the nodes.	<b>P35:</b> BCC will formulate a development contribution policy for land use intensification. Based on the required infrastructure interventions, a development contribution that landowners will be required to pay for the increased services requirements will be calculated.
expected to occur.	<b>S28:</b> BCC will provide suitable and affordable sanitation in the city's public spaces and in close proximity	<b>P36:</b> :BCC will create a ring fenced infrastructure development fund that is solely earmarked for the upgrading of infrastructure as and when it is required.
	to markets and street vending areas. A plan for the key areas must be prepared.	<b>P37:</b> BCC will devise a public sanitation policy and strategy to ensure access to sanitation at those places where large numbers of people congregate to do business.
<ul> <li>Integrate Urban Planning and infrastructure provision.</li> </ul>		<b>P38:</b> Whenever any planning for new development is considered or planning decisions are considered for applications that have an infrastructure component or impact, BCC engineering services shall consider such application and provide all infrastructure requirements that the applicant must provide or comply with. BCC will include this requirement into all planning and development applications submitted to BCC.
<ul> <li>BCC will prepare maintenance schedules for its infrastructure and budget the necessary funding to accomplish it.</li> </ul>	<b>S29</b> : BCC will prepare an infrastructure maintenance plan for the first five years of the structure plan	<b>P39</b> : Based on the findings of the status quo studies, BCC will plan and fund infrastructure maintenance to prevent total collapse and severe financial loss.

Strategy 4.2: To ensure that new development is progressively located in areas where it is most opportune to provide infrastructure services. Low hanging fruits should be prioritised for development.

Sub Strategy	Spatial/Infrastructure Levers	Policy Levers				
<ul> <li>Based on the map of developable land within the city boundary, classify and zone those areas on the basis of ease and least cost of service provision.</li> </ul>	<b>S28:</b> Identify the low hanging fruits – i.e. the areas where redevelopment/ densification/ intensification can occur without the need to invest large amounts in infrastructure	<b>P39:</b> BCC will encourage a logical development sequence. Should developers wish to develop outside of such sequence, then the cost of services to the required standards shall be borne by the developer.				
	upgrading	system for sustainable urban infrastructure and share with the development partners to reach agreement and unity of purpose.				
Strategy 4.3: To ensure that any new development by private individuals or the private sector comply with the services standards of the city to ensure that, over time, service delivery standards can be improved to desirable levels.						
<ul> <li>To develop and document a set of required standards for all utility services, for all developers including the BCC and government to comply with.</li> <li>To prevent Non- compliant designs from being executed without the due diligence by the technical departments to ensure that required standards and quality are met.</li> </ul>		<ul> <li>P41: To promote equitable Infrastructure services delivery, BCC will prepare an Infrastructure standards policy which will specify minimum standards and design guidelines for any development within the city.</li> <li>P42: BCC will promote sustainable and resilient design principles in planning for infrastructure</li> <li>P43: BCC will require that all utility infrastructure for any development be designed by a registered professional engineer and that all plans and designs must be approved by BCC prior to the commencement of construction.</li> <li>P44: BCC will strengthen development control and enforcement mechanisms to ensure that the standards and requirements are met.</li> </ul>				
It is clearly unaffordable to extend water borne sanitation systems to the entire city. Water borne sanitation is also unlikely to be affordable for new planned development, even if it is for affordable housing. However, the current extent of the use of pit latrines in high density areas is a health and environmental threat and will be addressed.	<b>S29:</b> BCC will investigate alternative packaged sanitation systems and, depending on the outcome of the investigation, reform sanitation provision in the city to a mode that is safe and sustainable.	<b>P45:</b> BCC will formulate a policy to regulate the use of pit latrines in all future development in the city.				

## Strategy 4.4: To coordinate with other service providers to ensure unity of purpose and shared strategic direction for the future development of infrastructure in the city.

Sub Strategy	Spatial/Infrastructure Levers	Policy Levers				
<ul> <li>To seek cooperation agreements with ESCOM and Blantyre Water Board to coordinate the prioritisation and provision of utility services within the city boundary as well as immediately outside the boundary and will seek to include these entities as members of the joint committee to be formed with the Blantyre District Council.</li> <li>To strengthen and/or harmonize the institutional framework to improve coordination of service delivery</li> </ul>	<ul> <li>S30: Based on the land as identified in S28,obtain agreement that focus should be on these areas.</li> <li>S31: Obtain common agreement that the provision of water and electricity in unplanned settlements only serve to encourage such settlement and get commitment from partners to not serve areas without agreement from BCC.</li> <li>S32: Negotiate a moratorium on the provision of services in unplanned settlement with BWB and ESCOM without the prior input of BCC.</li> </ul>	<ul> <li>P46: BCC will do its utmost to reach common ground with BWB and ESCOM through ensuring that these two bodies are in agreement with the provisions of this plan and prepared to incorporate the principles into their own operations.</li> <li>P47: Implement an institutional mechanism of control and agree that utilities will not be provided unless such a development has received planning approval from the BCC and that utility designs have been submitted and approved.</li> <li>P48: ESCOM and BWB should provide their investment plans to BCC to be checked with the provisions of the Blantyre Urban Structure Plan prior to implementation. ( in practice, current coordination structures/attempts seem not the be successful) (BCC CEO member of BWB's Board and STAFF of BWB and ESCOM being members of the planning committee.</li> </ul>				
~ To promote the provision of sufficient bulk energy and bulk water supply to meet the increasing demands in the city	~ <b>S33:</b> BCC will keep estimates of the growth in the city's demand for electricity and water and communicate this to the utility companies for planning and capacity development purposes.					
Strategy 4.5: BCC will implement a working solid waste management system for the city						
~ Together with the Water and Sanitation Project funded by the World Bank, BCC will devise a city wide solid waste management system that actually works and is able to serve all parts of the city.	<b>S34:</b> BCC will prepare a comprehensive and integrated waste management strategy for the city and invest the necessary resources to operationalise the strategy.	<ul> <li>P49 Decentralize waste disposal sites and/or establish strategic waste transfer stations across the city.</li> <li>Integrate the private sector in waste management activities (waste collection &amp; transformation)</li> <li>Promote Public-Private Partnership in waste management</li> <li>Encourage waste separation at source by distributing bins in homes and at disposal sites</li> <li>Establish incentives and disincentives for minimizing waste generation at source and encouraging reuse and recycling. Examples, include tax waivers for manufacturing companies/industries with infrastructure or activities that minimize waste generation or promote waste reuse and recycling</li> </ul>				

Much of the success of urban areas is built on the ability of its residents to move or connect with the various activities that makes up daily life in the city; moving to and from places of employment, accessing government services, accessing social services such as education and health and connecting with recreational activities. Traditional emphasis in Blantyre has been on motorised transport, but levels of congestion have reached a point where it is necessary to re-think connectivity/mobility in terms of the entire spectrum of modes as well as needs and resources to develop a balanced and effective mobility network for the city over the plan horizon.

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Strategy 5.1: To establish a logical Road Hierarchy.							
Sub Strategy	Spatial/Infrastructure Levers	Policy Levers					
<ul> <li>To evaluate and clearly classify its existing road system into major arterials, arterials, distributors, collectors and access roads Upgrade the road network systems hierarchy</li> </ul>	<b>S35:</b> Prepare a formal road classification system for the city and feed this into the Infrastructure Standards and Design Guidelines. Include the non- motorised transport requirements for each road type and ensure compliance in future planning <b>Refer to S19:</b> Plan for future public transport /transit systems	<b>P50:</b> BCC will set the standards for all roads in the hierarchy and require all new and future development to comply with the road standards, design requirements, widths and facilities specified for each road class.					
<ul> <li>Based on the classification, BCC will design its future arterial road system diagrammatically to serve the city in the future and ensure its ability to distribute people and goods throughout the city with multiple nodes of transport.</li> </ul>	<b>S36:</b> Based on the land use plan, prepare a diagrammatic strategic road network that would be able to ensure future connectivity and mobility. Consider the designated nodes and corridors as well as future nodes and corridors in the preparation of the strategic road network.						
Strategy 5.2: To dedicatedly plan for non-motorised transport							
Sub Strategy	Spatial/Infrastructure Levers	Policy Levers					
~ To raise the profile of non- motorised transport in the planning and programming of transport infrastructure	<b>S37:</b> BCC will develop and adopt guidelines for the reallocation of road space to include safe pedestrian and cycling lanes, support pedestrian-oriented design standards and promote the incorporation of facilities for						

non-motorised road users
Sub Strategy	Spatial/Infrastructure Levers	Policy Levers
~ To plan a NMT backbone to accommodate cycling and pedestrian traffic in a safe environment throughout the city	<ul> <li>S38: In addition and to augment S 36 and S37, investigate the use of the rivers and other public open spaces to create a nonmotorised transport backbone through the city in the form of a "riverwalk" or boardwalk or ecological and non-motorised transport corridors.</li> <li>S39: Explore the viability and desirability of a NMT flagship project that could unlock future investment in NMT.</li> </ul>	<b>P51</b> : BCC will actively support the inclusion of NMT infrastructure in all its future planning and development endeavours and will require the same from private developments.
~ To promote and integrated public open space system	<b>S40:</b> Design a public open space system wherein land uses, the road hierarchy, NMT and public open spaces are integrated into one logical system	
Strategy 5.3: To use the princ future traffic problems and system.	iples of transport Oriented I prepare for a feasible and v	Development (TOD) to avoid iable future public transit
<ul> <li>To promote densification and intensification of land use.</li> <li>To promote the establishment of a system of nodes and corridors which will eventually be able to support a public transport or transit system.</li> </ul>	<ul> <li>S41: BCC will plan with the end (TOD) in mind. This means that land use, density and intensity decisions will be taken to eventually enable a viable public transport or transit system which cannot work without a certain threshold of commuters supported by appropriate densities. This could include the provision of improved traffic management and traffic signalling along future corridors, the introduction of public transport lanes on routes where the demand may be high enough for an embryo system</li> <li>S42: BCC will explore the potential use of the existing railway line as a public transport backbone</li> </ul>	<b>P52:</b> BCC acknowledge that, given the circumstances in the city, public transport is a necessity. Failure to develop a public transport system is likely to seriously impede traffic movement and efficiency over the medium term. BCC is therefore committed to seek a viable solution to the need for public transport system in the city.
<ul> <li>BCC will define the future transit backbone and ensure that the proposed nodes are optimally positioned to support this</li> <li>BCC will investigate the use of the existing railway line as a</li> </ul>	<b>S43:</b> BCC will ensure the connectivity or connectedness of the urban development nodes through the strategic transport network plan. this would include:	<b>P53:</b> BCC acknowledge the impact of development around the Chileka Airport and its potential impact on safety. BCC together with civil aviation, will prepare development restrictions on land surrounding the airport and its approach and departure zones and disseminate this information to the Blantyre District

possible backbone for a low-tech public transit system for the city.	Upgrading and maintaining the strategic transportation network	Council for enforcement.	implementation	and
<ul> <li>BCC will actively encourage the upgrading and refurbishment of the Chileka International Airport to restore Blantyre's role in the Air travel sector in Malawi.</li> </ul>	Integration of rail transport in the multi-modal transport vision as a key transit partner Upgrading the road networks to Chileka International Airport to improve accessibility			

#### 5.5.6 ENVIRONMENTAL RESILIENCE

With a natural environment largely degraded and destroyed as a result of unsustainable consumption, it is of utmost importance to change our behaviour to protect the environment, allow it to regenerate and to protect it through managing human behaviour and ecosystem services in such a way that the environment is in the strongest possible position to deal with threats and pressures. The plan must therefore take due cognisance of the sensitivity of environmental resources and ecosystem services and do spatial allocations in such a way that it would improve the resilience of these resources and services. Spatial and policy levers to support environmental resilience include the following:

Table 14: Strategic Goal 6 – To ensure that the Urban and Natural Environment is in the strongest possible position (resilient) to deal with Threats and Pressures

Strategy 6.1: To protect the city, its infrastructure and its people from the effects of climate

change and other shocks(Promote Urban Resilience)					
Sub Strategy	Spatial Levers	Policy Levers			
<ul> <li>To implement the provisions of the disaster risk management plan currently under preparation.</li> </ul>	<b>S44:</b> Re-locate the houses and other fixed property located within the 1:50 year return period floodlines and the high landslide risk areas as determined by the Risk Atlas and Risk Management Strategy for Blantyre City.	<b>P54:</b> BCC will strengthen institutional (technical and financial) capacity for resilience to equip all related institutions and departments with the relevant skills and resources			
<ul> <li>To ensure that the tools and approaches for resilience are integrated in urban planning and management</li> </ul>	<ul> <li>S45: Include a provision in the evaluation of any and all development applications requiring a registered engineer to certify the 1:50 year floodline in all cases where the proposed development is close to a river or stream or in any way potentially subject to flooding.</li> <li>S46: With reference to P 41 to P44, BCC will ensure that road and stormwater infrastructure are designed in accordance with the minimum infrastructure design guidelines and standards and certified by a professional engineer.</li> </ul>	<b>P55:</b> BCC will design and implement a public awareness campaign on what people can do to reduce the risk of being affected by disasters. This would include the identification of the main threats of flooding, seismic activity and landslides.			

Sub Strategy	Spatial Levers	Policy Levers
~ To set infrastructure design standards that would take due cognisance of climate change and the expected increase in variability of rainfall and storm events.	<b>S47:</b> Evaluate existing stormwater drainage structures and practices, especially the tendency to fill stormwater drainage structures with soil to facilitate access.	<b>P56:</b> To include climate proofing as a component of the Infrastructure Design Guidelines under the Sustainable Infrastructure Objective of the plan. Refer to P41 – P44
~ To actively target the formalisation of unplanned settlements where no planned urban services and drainage are provided and where people are very vulnerable to floods and landslides	<b>S48:</b> Identify and map unplanned settlements in the city	<b>P57</b> : BCC will develop an unplanned settlement upgrading programme together with the other institutional stakeholders such as ESCOM, BWB, Ministry of Lands and others.
~ To completely halt the incidence of unplanned development in the city and ensure that both planning layouts, infrastructure designs and building designs comply with government laws and city by-laws and the objective of urban resilience.	Refer to S5 and P5 under the compact City Objective	<b>P58:</b> To support the Moratorium on unplanned Development in the City as per the provisions under the Compact City Objective.
<ul> <li>To reduce the city's carbon footprint through emphasis on electrical mobility and walking and cycling (NMT) and the promotion of green building and green roofs.</li> </ul>	Refer to S37 – S43: these levers are designed to address carbon emissions related to vehicular traffic.	<ul> <li>P59: BCC will support the carbon emissions reduction components of the Mobility and Connectivity objective, most notably the drive for public transit and the development of NMT</li> <li>P60: BCC will promote the use of green building technologies and provide green building guidelines to its residents to promote</li> </ul>
Strategy 6.2: To protect th	ne Natural Environment and Critical	l Natural Assets
~ To direct growth away from sensitive areas, particularly the very sensitive river courses, hills, high mountains, steep slopes and ridgelines and the rivers and dams in the city and direct growth away from areas at risk from natural hazards	<ul><li>S49: Map these sensitive and risky areas, compare with the mapping from the Risk Atlas and designate these areas as not suitable for future development.</li><li>S50: Designate permissible land uses in these areas with emphasis on its ability to serve as NMT movement corridors and public open space.</li></ul>	<ul> <li>P61: BCC will formulate a settlement policy particularly for these areas and implement a monitoring system to ensure that only designated land uses are allowed in these zones.</li> <li>P62: BCC will prepare a forest intervention plan for the renewal and enhancement of urban vegetation</li> </ul>

Sub Strategy	Spatial Levers	Policy Levers
~ To conserve and protect river ecosystems	<ul> <li>S51: Based on the results of the risk atlas and risk management strategy, identify and classify the rivers in terms of where sand mining can and cannot be allowed.</li> <li>S52: Identify the areas where the rivers are most at risk of litter and solid waste finding its way into the river courses and feed this into the provisions of the Integrated Solid Waste Management Strategy (S34)</li> </ul>	<b>P63:</b> To conserve the river ecosystems and reduce occurrence of flooding, BCC will not allow any illegal sand mining in the city and will formulate a policy framework and establish a bylaw on sand mining to regulate mining activities in a sustainable way and enforce its implementation.
~ To protect farming areas from urban encroachment and support appropriate development in rural areas through the envisaged joint committee between BCC and the Blantyre District Council	See the provisions of the Compact City Objective	<b>P64:</b> BCC will consult with the Blantyre District Council and agree on the most appropriate areas for development (if any) and seek the full support of the BDC towards Blantyre's urban edge and permission for higher density non agricultural development outside the urban edge.
Strategy 6.3: To prevent a	nd control pollution	
~ To reduce the impact of urban development on downstream river systems and dams and on groundwater.	<ul> <li>S53: Ensure effective wastewater management and treatment through the upgrading of 2 existing wastewater treatment plants in collaboration with the water and sanitation project.</li> <li>S54:</li> <li>Find a way in which to also upgrade Limbe and Chilimba.</li> <li>S55: Monitor wastewater and effluent from the industrial areas, especially illegal hazardous effluent dumping into the normal river systems</li> <li>S56: BCC will seek alternative sanitation models and replace pit latrines over time</li> <li>S57: BCC will require all future development to include off-site sanitation systems, many of which are available in the market, can be packaged, is easy to operate, and deliver clean effluent.</li> </ul>	<ul> <li>P65: BCC will design a system to monitor pollution of its rivers from all human activity, most notably from domestic and industrial effluent and from solid waste</li> <li>P66: BCC will use the provisions of the environmental management act to require polluters to cease their activities until such time as their effluent quality meet the required standards.</li> <li>P67: BCC together with Blantyre Water Board will continuously monitor groundwater for signs of pollution that may occur as a result of the large number of unimproved pit latrines in the city</li> <li>P68: Irrespective of where it is located, should the BCC be of the opinion that a proposed industry may discharge noxious effluent or unpleasant noise, fumes, smoke dust or smell, an environmental impact assessment shall be required before development may take place.</li> </ul>

The structure plan is built on the foundation of good governance. The Blantyre City Council and its officials commit themselves to eight key principles of good governance. These are shown in Figure 13 and elaborated in Table 15.



Figure 13: The eight Principles of Good Governance

Governance is the process of decision making and the process by which decisions are implemented (or not implemented) and it is used here in the context of local governance.

For the purpose of the plan, good governance is defined (after the World Bank) as "the manner in which power is exercised in the management of Blantyre's spatial, economic and social resources for development."

In the context of the plan it aims to ensure that corruption is minimised, that the views of minorities are taken into account and that the voices of the most vulnerable in society are heard in decision making. It also aims to ensure that decision making is responsive to the present and future needs of society. "Good Governance is perhaps the single most important factor in eradicating poverty and promoting development"

Kofi Anan

The United Nations supports these eight principles

and they have been applied across the world to try and improve the way in which nations, regions and cities are governed. BCC supports these principles and undertake to uphold them in the management and decision making processes of the city.

#### Table 15: Principles of Good Governance Defined

	Good Governance Principles	Description
1	Participation	<ul> <li>People are able to voice their own opinions through legitimate immediate organizations or representatives.</li> </ul>
		~ This includes men and women, vulnerable sections of society, backward classes, minorities, etc.
		~ Participation implies freedom of association and expression.
		$\sim$ All stakeholders have opportunity to participate in and affect decision making
2	Rule of Law	~ Legal framework is enforced impartially, especially on human rights laws.
		<ul> <li>Without the rule of law, politics will follow the law of the strong prevailing over the weak.</li> </ul>
3	Transparency	~ Information is accessible and freely available to the public and the media and is understandable and monitored.
		~ The rationale for decision making is clearly communicated.
4	Consensus Oriented	<ul> <li>Consensus oriented decision-making ensures that even if everyone does not achieve what they want to the fullest, a common minimum can be achieved by everyone which will not be detrimental to anyone.</li> <li>It mediates differing interests to meet the broad consensus on the best</li> </ul>
		interests of a community.
5	Accountability	<ul> <li>Good governance aims towards betterment of people, and this cannot take place without the council being accountable to the people.</li> </ul>
		~ The BCC takes responsibility and is answerable for its decisions and demonstrates fulfilment of its responsibilities
6	Effectiveness and Efficiency	~ Processes and institutions should be able to produce results that meet the needs of their community.
		<ul> <li>Resources of the community should be used effectively for the maximum output.</li> </ul>
		~ Processes meet their objectives while making the best use of resources.
7	Equity and Inclusiveness	<ul> <li>Good governance assures an equitable society.</li> <li>People have opportunities to improve or maintain their well-being</li> </ul>
8		reopie nave opportunities to improve of maintain their wen-offlig.
0	Responsiveness	~ BCC and its processes and procedures serve all stakeholders in a reasonable period of time.

The Blantyre Service Charter is a social pact between the Council and the residents of the city to improve accountability, efficiency and service delivery. With the slogan of "Taking the City back to its People", the charter makes a good start to improve Governance in the city.

Nevertheless, there are some gaps that needs to be covered and the provisions of the structure plan have been aligned to contribute to the principles of good governance as elaborated above.

#### 5.5.8 THE ROOF: SUSTAINABLE URBAN DEVELOMENT

Goal 11 of the United Nations' Sustainable Development Goals is about making cities and human settlements inclusive, safe, resilient and sustainable. It is no longer just a reference to how "green" a city is but has much wider meaning and requirements than just looking after the environment. It is more than a city's use of resources and space in a way that meets the needs of its residents in the present without negatively impacting residents' needs in the future.

Cities represent the future of global living and the proportion of the population living in cities rises every year across the world. It is no different in Malawi. The City of Blantyre finds it difficult to deal with the challenge of urbanisation and the resultant population growth. The BCC has been unable to keep pace with this growth and since the preparation of the previous structure plan, much of its growth has been organic and driven by unplanned development. Population growth outpaced the development of housing, infrastructure and services. The inability to get ahead of the wave to plan for urbanisation saw unplanned urban sprawl and the rise of slum-like settlement in the city.

The most pressing challenges related to sustainability in Blantyre are poverty and inequality, the provision of water, sanitation and energy services, pollution, vulnerability to climate change and natural disasters, tangled traffic, high levels of greenhouse gas emissions, resources to plan for and provide essential social services such as health, education, recreation, open space and public transport and resources to facilitate employment creation and local economic development.

Sustainable development cannot be achieved without significantly transforming the way urban spaces are planned, built and managed. The structure plan aims to achieve just that through integrating spatial planning and management with infrastructural, economic, social, financial, institutional, legislative and environmental considerations to address the complex set of challenges faced by the city.

Sustainable urban planning is the process of designing and managing urban lands in a way that supports urban growth while ensuring long term sustainability, efficiency and equity. This approach to planning focusses on addressing concerns such as climate change, clean air and water, renewable energy, and land use to create self-sustaining communities that can thrive in the long term without burdening future generations.

As shown in Figure 14, if all three components are not attended to, it merely results in a liveable city, a fair city or a viable city but not in a sustainable city. True sustainability therefore has to include environmental quality, social equity and economic prosperity. In that way, it also addresses some of the other important sustainable development goals such as poverty and hunger, health and well-being, clean water and sanitation, decent work and economic growth, building resilient infrastructure, promote sustainable industrialisation and strengthening our institutions.



Figure 14: Sustainable Urban Development

The Structure Plan pillars are interdependent – change in one influences the other and it requires attention to all to achieve true sustainability.

## 6 STRUCTURE PLAN CONCEPT

## 6.1 BROAD SPATIAL CHARACTERISTICS

A compact urban form is an efficient and sustainable urban form, and studies have found that increases in density and intensity of land use (as opposed to urban sprawl) has clear benefits in terms of productivity, access to jobs, access to services, preservation of urban green space, gains in energy efficiency, reduced pollution and a safer urban environment. In addition, infrastructure capital cost, public service cost and vehicle use is lower than in sprawling urban

areas. Compact cities are characterised by a dense urban core with high density around it and decreasing densities as one moves further away. Secondary centres along the main transportation routes accommodates integrated



growth and mirrors the core, just at a smaller scale. Densities are high enough to support a public transport system and this further promotes the growth and development in the nodes or sub centres. Residential, commercial and industrial zones are mixed, thereby facilitating jobs and economic activity closer to where people live.

Blantyre's urban form differs from a compact polycentric urban form in a number of ways":

- The Blantyre and Limbe CBDs are virtually devoid of any high density residential development.
- This results in the CBDs being "dead" after business hours and it further contributes to urban sprawl. With few high density residential opportunities available in the CBD, residential settlement is pushed further out to the fringes.
- The high density areas are mostly found further away from the CBDs (except for the Chinyonga and Soche areas), and are seldom supported by formal economic or employment nodes.
- There is therefore a mismatch between higher density residential areas and the main areas where job opportunities are predominantly found.
- The nodal structure (if one can speak of nodes) is undefined and concentrations of business activity is mostly based on the concentration of informal business in an area defined as suitable by such business folk.

- There is no evidence of transit oriented development (TOD) principles being applied in the development of the city. In fact, the city is allowed to grow organically without much planning intervention. New development is almost exclusively unplanned.
- Residential densities are low and the mean gross density in the city stood at 8.95 hh/ha. This low density is not suitable to support a public transport system, which requires a mean gross density of about 25 du/ha to be viable.
- The low densities, driven by the emphasis on "single residential" development where everybody lives at ground level, linked to the virtual absence of high rise residential or mixed use development also contribute to urban sprawl.
- A substantial part of the city is covered with low density suburban development and singleuse zoning, which does not contribute to an integrated city form and reflects the legacy of colonial planning philosophy.

Figure 15 provides a diagrammatic indication of the current morphological structure of the city.





Obviously, the topography of the city also contributes to determine city form and compactness and the topographical, environmental and administrative constraints are provided below.

## 6.2 TOPOGRAPHICAL CONSTRAINTS

#### 6.2.1 STEEP SLOPES

Development on steep slopes is undesirable and risky. While it occurred (in an unplanned way) in Blantyre for many years, the impacts of recent cyclones Gombe and Freddy alerted residents

to the risk of flooding and landslides to human life and property. This risk is further exacerbated by the anticipated impacts of climate change. Slopes steeper than 1:5 is regarded as unsuitable for development and these areas are indicated in Map 14. Steep slopes are mostly found in existing reserves or dedicated conservation areas and development on these steep slopes are mainly as a result of encroachment into these areas. The plan aims to prevent further settlement on steep slopes and risky areas and designate additional conservation areas to protect people and property.



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#### 6.2.2 1:50 YEAR FLOODLINES

As part of the Comprehensive Risk Atlas and Risk Management Strategy for Blantyre City developed by NIRAS, the extent of flooding under various return period scenarios were modelled and flood areas determined. The Risk Management Strategy recommended that the floodlines for a flood with a 50 year return period be adopted as the official floodline. The floodline modelling does not cover a few catchments such as the Mombezi Catchment, part of the Luchenza catchment and a few other river portions. In these cases, the rivers were buffered with 60 m from the river centreline for the main rivers and 30 m from the centrelines for smaller streams. The Blantyre Urban Structure Plan incorporate these evidence based recommendations and adopt the floodlines as areas where no development will be allowed. The floodlines and buffers now define a complete no go area for the construction of any permanent structures and land use other than for NMT and recreation purposes. Detailed provisions are contained under the appropriate sections of the plan. Map 15 provides the detail.

#### 6.3 ENVIRONMENTAL CONSTRAINTS

#### 6.3.1 RESERVES AND CONSERVATION AREAS

Reserves are those areas designated by law for environmental protection. Conservation Areas on the other hand are areas that BCC regard as either unsuitable for development or important to conserve as part of the larger scale open space and natural heritage of the city. Both the statutory reserves and the identified conservation areas must be kept free from development. The statutory reserves are Michiru Mountain Conservation area, Soche Mountain Forest Reserve, Ndirandi Mountain Forest Reserve and Mzedi Forest Reserve. Existing conservation areas are the Mudi Dam Catchment Protection Area, Bangwe Hill, Nymbadwe Hill, Mpingwe Hill and Sanjika Forest. While the reserves are designated for the protection of the environment and the forest resource, tree cutting for wood and charcoal is rampant and the reserves have been virtually deforested. These reserves and conservation areas are shown on Map 16.



Map 15: City-Wide 1:50 year floodlines



Map 16: Blantyre's Forest Reserves and Protected Areas

#### 6.3.2 AREAS OF SHALLOW GROUNDWATER

Nine catchment areas drain the city through a system of rivers and streams. However, rivers and streams are not respected for their ecological and environmental functions. Encroachment onto river banks, sand mining, large amounts of solid waste finding its way into rivers and streams and pollution from untreated or poorly treated wastewater characterises the rivers and riverbanks. The two recent cyclones in Blantyre with associated flooding and landslides brought attention to the importance of observing river floodlines and attending to the ecological health of rivers and wetlands, if not for the environmental value of doings so, then for the safety risks it poses if development is allowed within floodlines and floodplains. In addition to Map 15, Map 17 shows the areas of surface and shallow groundwater. The necessity of respecting the rivers and floodlines and to keep it free of development cannot be overemphasised. In fact, of the 170 951 structures in the city, some 11 444 are fully or partially situated within the 1:50 year floodlines of rivers and streams. Clearly, a strategy is also needed to deal with these houses and structures for the sake of removing them as barriers in the overall drainage system and to protect people and their assets from future disaster.

#### 6.4 ADMINISTRATIVE CONSTRAINTS

#### 6.4.1 BOUNDARY

The Blantyre City Boundary defines the area of jurisdiction of the BCC. Land outside the boundary are mainly under the custodianship of the Blantyre District Council, Chiradzulu District Council and Thyolo District Council. Urban type development on the fringes of the city are mostly found along the main roads out of the city, particularly Chileka Road (Blantyre District), Zomba Road (Chiradzulu District), Mulanje Road (Chiradzulu District), Thyolo Road (Thyolo District), Chikwawa Road (Blantyre District) and to the West of Chilomoni, also in the Blantyre District.

This type of settlement simply leads to unplanned organic growth. With the entire Country declared a planning area, it is therefore legally required and desirable that all such development be subjected to planning approval. Practically, this can only be achieved if the responsible authorities work together and pursue the same or similar goals.



Map 17: Rivers and areas with Shallow Groundwater

#### 6.4.2 LAND OWNERSHIP

Map 18 provides a spatial indication of the broad land ownership categories within the Blantyre City Boundary. From this map it seems that unplanned settlement was allowed to occur on both city land as well as government land administered by the Ministry of Lands. It is also clear that BCC has very little if any land left that have not been developed already or settled upon in an unplanned fashion. The provisions of the new land act determines that all government land within the city boundary will be transferred to BCC and the process has already commenced. This would provide BCC with both the opportunity and the responsibility to ensure that this land is developed optimally to accommodate the projected household growth over the plan period. There are also large portions of strategically located privately owned land which remains undeveloped and it is necessary to ensure that this land is also developed in the interest of the City's residents. Again, legal provisions are in place to deal with large tracts of strategically located private land that remains undeveloped.



Map 18: Broad Land Ownership in Blantyre

#### 6.4.3 JURISDICTIONAL ISSUES

Map 18 shows that large portions of land is owned by the Malawi Government and administered by the Ministry of Lands. The Malawi Housing Corporation also owns substantial land areas. The Ministry of Lands, upon application from individuals or families, allocated land portions in the land areas under its ownership. This resulted in a gradual organic type of

densification of land on the urban fringe inside the boundary. In some cases these concentrations became so dense that it is now called unplanned settlement or dense rural type settlement. As a result, all the land left within the Blantyre boundary have some kind of settlement already; in some cases dense and in others medium or low rural-type densities.

Both the Ministry of Lands and Malawi Housing Corporation initiate the development of new townships while the Ministry of Lands also allocate land under leasehold to individuals. It is further alleged that so called "town chiefs' also allocate land as if the land within the city boundary is customary land.

Section 43(A) of the Physical Planning Act (2016) that prohibits any person from carrying out any development in Malawi without planning permission has also made the whole of Malawi a planning area. This is a significant departure from the previous situation where the requirement for planning permission was only necessary in gazetted planning areas notably cities and towns. This legal provision means that the surrounding districts of Blantyre, Thyolo and Chiradzulu also became planning authorities that must comply with the provisions of the Act. This should in turn create favourable conditions for joint planning between Blantyre City Council and its neighbouring district councils to address urban sprawl into rural areas.

Development permission is required for various types of development including the subdivision of land, amalgamation of plots and change of use of land or buildings. Establishing control over subdivision has been the weak link in addressing uncontrolled development and urban sprawl. The requirement for development permission for the construction of utilities and services such as roads, power lines, water pipes and sewer lines (Section 45e) should help to enhance alignment of sector plans to the Structure Plan and reduce uncoordinated planning and development between various development agencies in the city. It is further important that the city takes control over the quality of township layouts and subdivision of the government land into portions for planning to decrease the extent of piecemeal layouts that do not connect to existing areas and to limit space left open after planning (SLOAP), which wastes large tracts of land and facilitate rather than discourage unplanned settlement.

In line with the intentions of Malawi Vision 2063 and the provisions of the Land Act, the Ministry of Lands already commence with handing over the land under its administration to the BCC and this should substantially aid the ability of the BCC to initiate and control new development in the city.

### 6.5 LAND REQUIREMENT

To calculate the extent of land needed to accommodate the household population of the City by 2039, inclusive of all required land uses associated with a well-functioning urban area, the population and household projections as in Table 16 were used. Instead of attempting to calculate the land requirement for each and every land use, a different approach from the 2000 Urban Structure Plan was followed. The plan, under the Compact City Pillar, sets a target mean gross density for the City of 25 dwelling units /hectare. <sup>1</sup> Based on the household growth projections, Blantyre City will need to accommodate an additional 105 036 households by 2039. New development is not the only way in which growth will be accommodated. Intensification and densification proposals will also contribute but indications based on the actual applications received by BCC in the past, it is difficult to estimate the extent to which it will be taken up by developers and land owners. It is therefore prudent to make sure that enough land is allocated to accommodate growth in new development.

To accommodate 105 036 households at a mean gross density of 25 du/ha, a total land area of 4 200 ha is required.

Year	Households	Population	Mean Household Size
2024	223 651	901 089	4.03
2025	229 466	919 093	4.01
2026	235 433	937 456	3.98
2027	241 554	956 187	3.96
2028	247 834	975 291	3.94
2029	254 278	994 778	3.91
2030	260 889	1 014 653	3.89
2031	267 672	1 034 926	3.87
2032	274 632	1 055 604	3.84
2033	281 772	1 076 695	3.82
2034	289 098	1 098 207	3.80
2035	296 615	1 120 150	3.78
2036	304 327	1 142 530	3.75
2037	312 239	1 165 358	3.73
2038	320 357	1 188 642	3.71
2039	328 687	1 216 141	3.70

#### Table 16: Projected Household Growth: 2024 - 2039

<sup>&</sup>lt;sup>1</sup> Mean gross density refers to the number of dwelling units per hectare across the city inclusive of all other land uses, as well as space required for roads and infrastructure. It does not mean that all densities should be the same. Lower density areas may have a density of 15 du/ha while high density areas may have densities of 40 du/ha. In new development areas the objective is to arrange densities in such a way that the average across all areas would approximate 25 du/ha.

## 6.6 DEVELOPABLE LAND

Given the extent of existing development in the city together with the constraints discussed earlier, it is assessed that there is a total of 3700 ha of developable land available within the city boundary. These are detailed in Table 17. It is to be noted that much of the (rural type) undeveloped and within the city boundary has some settlement on it already. Some portions are not settled at all while others have approximately 60% already occupied. Table 17 represents a realistic assessment of the capacity of all these land portions with the necessary provision made for existing houses or settlement.

Number	High Density	High Density infill	Medium Density	Medium Density Infill	Low Density	Low Density Infill
1	96	39.4	168	3.65	101.7	7.11
2	56.7	6.12	76.4	15.5	103	2.66
3	93.1		140.6	6.83	22.3	3.51
4	58.5		30.2	40.7	20.2	9.76
5	3.4		134.1	3.9		4.68
6	2.14		161			3.24
7	81.2		35.7			
8	61.47		221.25			
9	38.5		117.9			
10	84.8		115			
11	164.7		55.53			
12	75.7		49.36			
13	194					
14	34					
15	24.2					
16	31.6					
17	134					
18	119.85					
19	276.6					
20	34					
21	72.9					
22	60.4					
23	203					
Subtotal	2001	46	1305	71	247	31
TOTAL						3700 ha

#### Table 17: Breakdown of Developable Land (Ha)

This means that there is a shortfall of about 500 ha of land within the city boundary to accommodate the anticipated growth in households over the plan period. This shortfall will need to be made up through the extension of the Blantyre City Boundary.

# 7 THE BLANTYRE SPATIAL FRAMEWORK

Map 19 provides a broad land use concept underlying the BUSP. Its main features are:

- The pursuit of a compact city form through
- ✓ the designation of both small undeveloped land portions within the existing urban footprint and larger brownfield and greenfield land portions to accommodate the future growth of the City;
- densification and intensification of land use in the CBDs and the low density residential areas of the city, especially in areas where upgraded water borne sanitation is available or will be available soon;
- ✓ ensuring future layout efficiency by setting design guidelines and standards to be followed to ensure efficient land use; and
- ✓ extension of the City's boundary to accommodate the projected land shortfall and possible delays in development in some designated areas.
- The pursuit of a quality urban environment through
- ✓ better layouts that will build integrated neighbourhoods and communities with emphasis on walkability, mixed use and mixed housing, diversity and provision for all future land uses associated with integrated neighbourhoods;
- emphasis on the quantity and quality of public open space and the public realm, supported by urban design guidelines; and
- ✓ capacity building to empower city staff to work with communities to improve the urban quality at the designated nodes of the City.
- The promotion of local economic development through
- ✓ designating 27 existing areas with significant commercial/business activity as nodes together with policy areas and policy provisions to allow more intense use and economic opportunities;
- $\checkmark$  paving the way for improved economic service provision to these nodes;
- $\checkmark$  defining a pathway for the formalisation of the nodes in unplanned areas; and
- ✓ designating future larger scale industrial and commercial areas while providing for decentralised economic opportunity in all new layouts.

- Ensuring the health and safety of the City's residents through
- ✓ designating areas that are unsuitable for settlement and effectively preventing people from occupying such areas;
- ✓ resettling households who find themselves in known hazardous areas such as within floodlines and on steep slopes;
- designing resilient infrastructure that takes due cognisance of the impacts or climate change on especially capacity requirements on roads and stormwater;
- ✓ upgrading unplanned settlement where residents are substantially more vulnerable to disaster risk due to a lack of planning and infrastructure provision;
- ✓ designating reserves, conservation areas and public open spaces, not only be kept free from development, but to be developed or re-forested by a community based resource management process;
- ✓ upgrading of the wastewater treatment plants that do not form part of the water and sanitation project, investigate ways in which to improve the current sanitation practices in both planned and unplanned areas and resolving which sanitation provision standards to follow for any new development, and
- designing and implementing an Integrated Solid Waste Management System covering city wide waste collection, waste separation and recycling and value addition through widespread and decentralised composting.
- The development of sustainable roads and infrastructure through
- ✓ setting design standards that are appropriate to deal with climate change requirements such as the amendment of design capacities to account for the impacts of climate change;
- ✓ reconsidering building regulations to include raised plinths for all buildings to deal with local flooding and run-off;
- ✓ prioritising mobility and not only road traffic to ensure that future infrastructure provides for a variety of transport modes including non-motorised transport and setting out a transportation backbone that would best serve the residents of the city and their economic activities.



Map 19: Broad Spatial Framework.

# 7.1 STRATEGIC GOAL 1: STRATEGY TABLES TO ACHIEVE A COMPACT CITY FORM WITH TARGETED GROWTH

The strategies to achieve this goal relate to identifying developable land within the city boundary and ensuring that this is developed first before spilling or sprawling outside the boundary, to making maximum use of the land inside the city through densification and intensification, to enable and incentivise the redevelopment of the CBDs and to work with the City's development partners and the neighbouring district councils to jointly pursue this overall goal.

Table 18: Strategy 1.1: To ensure that suitable undeveloped land, whether in public or private ownership, is developed first and to its maximum potential before extending the boundaries of the City

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
Subject to the findings of the hazard models and mapping in the risk atlas and risk management strategy, identify the suitable undeveloped land within the city limits.	Council acknowledges the Vision 2063 assertion that well planned urban centres promote efficient use of resources that create more sustainable land use and protect the biodiversity of natural ecosystems Council further acknowledges the negative impacts of urban sprawl on the cost of land and services, the cost of future maintenance, the increase in distances to travel to main employment areas and the decrease in income from rates and taxes per unit of land. Council is committed to ensure that future planning is done in line with contemporary planning practice resulting in much more dense and mixed use neighbourhoods and superior urban quality.	<ul> <li>Council will strive to:</li> <li>Formulate the land use plan to accommodate the anticipated household growth over the plan period.</li> <li>Direct new development to take place within the designated areas.</li> <li>Based on the floodlines and steep slopes mapped as part of this plan, not allow any development within the determined 1:50 year floodlines or on slopes that are steeper than 1:5</li> <li>Implement and effective development control system to enforce plan provisions.</li> </ul>	<ul> <li>P1</li> <li>BCC will ensure that any and all new development and settlement in the city follow the application and approval process as contemplated in the provisions of the Physical Planning Act.</li> <li>P2</li> <li>BCC will, through a public information campaign, convey its policy on new development and settlement to the community and enforce the provisions of the law without fear or favour when development or settlement is non-compliant</li> </ul>	<ul> <li>By the end of 2025, all new development in the city will be planned formally and approved by BCC in accordance with the requirements of the Physical Planning Act.</li> <li>By the end of 2024, BCC would launch an information campaign whereby the development process and requirements for new development/subdivision/township establishment is clearly spelled out to the public and all stakeholders to ensure that this is widely known and that no stakeholder can claim to be unaware of the requirements.</li> <li>By the end of 2024, new development is channelled to the areas designated for new township establishment and development on the city fringes are limited to the areas of future expansion.</li> </ul>	
Where developable land is privately owned yet	Council acknowledges the intention of Vision 2063 to ensure that all land in town and/or city jurisdictions should	Council will strive to: ~ Formulate the land use plan to accommodate the	<b>P3</b> BCC will identify these strategic land portions and enter into discussions with the land	<ul> <li>By the end of 2025, BCC has identified and discussed the development of strategic land portions in the city with private owners and determine a way</li> </ul>	

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remains undeveloped for more than 2 years after coming into effect of the new Land Act, invoke the legislative provisions and prescribed process to re- enter it.	belong to the town and city authorities for effective planning and execution of their master plans. Council acknowledges that large tracts of strategically located land in private ownership remains undeveloped and that this has a negative influence on the urban amenity and form of the city. Council is committed to ensure that all strategically located land in the city being brought under the ownership of BCC to enable effective planning and control.	anticipated household growth over the plan period. ~ Identify the significant privately owned land portions, the development of which would contribute to the strategic goals of the plan.	owners to determine their plans, reach agreement on its development and communicate Council's policy with respect to expropriating such land if it remains undeveloped. <b>P4</b> BCC will formulate a policy according to which it will use the provisions of the Lands Act to obtain re-entry of such strategically located but undeveloped land.	forward, be-it an agreement to develop the land or by starting the process of re-entry.	
Set the Urban Edge and establish a Joint Committee/s with the Blantyre, Chiradzulu and Thyolo District Councils to coordinate development around the city fringes and jointly pursue the objectives of the plan.	Council acknowledges the importance of a joint vision between all the stakeholders dealing with planning and development in and on the fringes of the City to prevent urban sprawl and uncoordinated development. Council further acknowledges that not all development proposals on the fringes of the city are without merit and that a policy is required to guide decision making in this regard. Council is committed to work together with the three district councils bordering the city to give effect to the provisions of the Physical Planning Act which effectively declared all of Malawi as a planning area.	<ul> <li>Council will strive to:</li> <li>Guide the bulk of new development to within the urban edge and only support development outside the urban edge if it has planning merit.</li> <li>Work with the three District Councils to establish joint committees that would enable BCC to have real time knowledge of planning applications submitted outside the urban edge.</li> <li>Commence with the process of extending the City's boundary in</li> </ul>	<ul> <li>P5</li> <li>For the purpose of this plan, the existing Blantyre City Boundary is set as the urban edge. BCC will erect signs indicating the BCC boundary on every road into and out of the City to indicate to residents where the boundary is.</li> <li>P6</li> <li>BCC together with the three district Councils will prepare a joint policy on how to deal with urban type development outside the urban edge.</li> <li>P7</li> <li>BCC will commence with the formal process of extending the boundary of the city into the</li> </ul>	<ul> <li>By the end of 2024, the BCC boundary will be signposted on every main road into and out of the city and citizens will be aware of the boundary, which now also doubles as the urban edge.</li> <li>By the end of 2026, the broad policy framework that forms part of this plan will be elaborated by BCC and the district Councils to form a guide for decision making on planning and development applications outside of the urban edge.</li> <li>By the end of 2030, the extension of the Blantyre City Boundary to include the five designated areas is complete and BCC has effective control over development in these areas.</li> </ul>	Policy Framework on Development outside the urban edge.

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		accordance with the plan provisions.	five designated expansion areas.		
Align the objectives of BCC, Blantyre Water Board and ESCOM in order to support the provisions of the plan.	Council acknowledge the sentiment in Vision 2063 that Malawian "cities are poorly planned and do not adequately provide services such as water supply, electricity supply, waste management, education, health and transport." Council acknowledges that if BCC, Blantyre Water Board and ESCOM improve its cooperation, all three parties is likely to benefit in terms of its financial sustainability and contribute to a more efficient city form and more integrated planning, thereby improving living conditions and quality of life in the city. Council beliefs that failure to align objectives and operating principles contributes to unplanned settlement and causes long term problems for the city and its people. Council is committed to work with its partners to find solutions to the challenge of planning and providing affordable serviced land to the citizens of Blantyre.	<ul> <li>Council will strive to:</li> <li>Ensure that the provision of water and electricity follows planning and that the water and sanitation project be aligned to the provisions of the structure plan.</li> <li>Reach agreement with the service providers on a realistic and workable methodology and funding system to plan ahead for development through township establishments together with the provision of utility services at the same time and at an affordable cost.</li> </ul>	<ul> <li>P8</li> <li>BCC will consult with the Blantyre Water Board and ESCOM to formulate a joint policy on the provision of infrastructure services in unplanned areas, especially those outside of the urban edge.</li> <li>P9</li> <li>BCC will seek agreement with its development partners not to supply any service to a person, developer or area where such a development has not been approved formally as contemplated by the physical planning act.</li> </ul>	By the end of 2025, BCC, Blantyre Water Board and ESCOM have agreed on and implemented a system whereby all three parties will align their operations to contribute to planned development and discourage unplanned development and settlement by not availing services to illegal settlement and development.	

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
Institutionalise the task of creating new town planning layouts continuously to enable planned development.	Council acknowledges that the unavailability of planned land contributes to the proliferation of unplanned settlement. However, this is not the only reason and the cost of planned and serviced land also plays a role in people's decisions to settle in unplanned areas. With the preparation of town planning layouts being relatively affordable, Council is committed to set up a system of continuous planning on the basis of a programme designed to provide the housing opportunities required to accommodate the growth of the city over the plan period.	<ul> <li>Council will strive to:</li> <li>Prepare a development sequencing map and programme to guide development and make sure that the targets are reached every year.</li> <li>Allocate the necessary professional resources to, as its core activity, prepare town planning layouts and take it through the evaluation and approval process.</li> <li>Allocate the necessary resources to have the planned layouts surveyed and become part of the cadastre of Blantyre.</li> </ul>	P10 BCC will follow the development programme for the first five years as developed under the BUSP and ensure that targets are achieved every year. P11 BCC develops a cooperative framework that facilitates the planned development of the city's land through consultation with land owners, developers, and through entering PPPs where appropriate.	<ul> <li>BCC will follow the planning programme and, by 2029, would have planned a total of 35 000 housing opportunities in the form of single plots as well as plots suitable for higher density medium rise residential buildings and sectional title schemes.</li> <li>BCC will submit an annual report to Council detailing progress and achievements with respect to the implementation of the programme.</li> <li>BCC will ensure that the layouts so created will be of high quality and link seamlessly with the existing cadastre of the city. The principles and standards contained in the Town Planning Standards and Layout Design Guidelines.</li> </ul>	Five year plot development programme. Town Planning Standards and Layout Design Guidelines.
Identify the most suitable land portions for this purpose, preferably land already in BCC ownership.	Council acknowledges that it is important to make an easy start to get the process developed and institutionalised.	Council will strive to: ~ identify the most suitable land (low hanging fruits) to kick start the process and test the waters with respect to obtaining financing for the surveying and development of the townships.	<b>P12</b> From the onset of this activity, BCC will consult with the Blantyre Water Board and ESCOM to cooperate with BCC to prepare for the provision of water and electricity to the townships developed under this policy.	By the end of 2024, BCC will have planned and approved new layouts for 2000 new plots as designated in the five year plot development programme. By the end of 2024, BCC will have worked out an agreement with its development partners to, as a unit, work together to provide services to these plots in a way that it would benefit all role players.	Cooperation framework between BCC, BWB and ESCOM on future land development in Blantyre and the role and responsibility of each in a new development dispensation.

Table 19: Strategy 1.2: To set up a township development programme and commence with the planning and preparation of new townships to counteract the need for unplanned settlement.

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Improve the quality of town planning layouts and ensure that all land uses are catered for in all new development, and develop a set of standards for the City based on the national guidelines and standards	Council acknowledges that, due to a number of reasons, even planned development in Blantyre is subject to a number of shortcomings. Developers often place their main emphasis on the provision of single land use categories such as industry or housing. As a result, other land uses are neglected, which negatively affects the quality of the city in general and neighbourhoods in particular. Also, layouts are often developed as islands surrounded by unplanned land and this results in disjointed linkages and a lot of space left open after planning. Such spaces are invariable settled upon because of the obvious benefits of easy access and the possibility to have access to services.	<ul> <li>Council will strive to:</li> <li>tighten its development control activities to ensure that all new development planning proposals are taken through the legal application and approval process.</li> <li>set appropriate standards for planning and development and ensure that these are met.</li> <li>ensure that no shortcuts are allowed and that new layouts are contiguous to the existing cadastre and integrated seamlessly.</li> <li>Ensure that the entire suite of land uses as required in the town planning standards and layout design guidelines are provided in all new layouts.</li> </ul>	P13 BCC adopts the Town Planning Standards and Layout Design Guidelines and will implement its provisions without fear or favour. These provisions will be used by the Planning Committee to evaluate all town planning applications. P14 The Town Planning Standards and Layout Design Guidelines will be applicable to all prospective developers and land owners including BCC itself.	BCC will, upon the approval of the BUSP, commence with using the Town Planning Standards and Layout Design Guidelines to evaluate the any and all planning applications submitted to it. BCC will, upon approval of the BUSP, disseminate the standards and guidelines to all stakeholders who have an interest in or may potentially submit planning and development applications to the city.	
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Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
As per the provisions of the legislation, and in line with the Urbanisation Pillar of Malawi Vision 2063, make it widely known that the city intends to stop all unplanned settlement and development.	Council acknowledges the intention of Vison 2063 to create laws to halt the development of slums in Malawi. The BUSP should already incorporate this sentiment since unplanned settlement is one of the key reasons why the provision of services such as water supply, electricity supply, waste management, education, health and transport is inadequate.	<ul> <li>Council will strive to:</li> <li>follow a two-pronged approach to halt unplanned settlement through providing planned plots on the one hand and enforcing the law prohibiting settlement and development without planning permission on the other.</li> <li>work with ward councillors and ward committees to timeously identify any illegal unplanned settlement and deal with it before construction commences or progresses too far.</li> <li>use its town planning rangers to identify and report any unplanned development in their areas of responsibility.</li> <li>Severely deal with any signs of corruption where officials are bribed to turn a blind eye.</li> </ul>	P15 BCC will summarise the legislative and policy framework which limits any and all development, subdivisions, etc. without the approval of BCC and set out the application procedure in laymen's terms. P16 BCC will launch an information campaign to explain its stance on unplanned settlement, highlight the negative impacts it has on residents who settle in an unplanned manner (often in high risk areas), explain how planning permission can be obtained, and highlight the need to obtain building plan approval before any construction work is undertaken.	By the end of 2024, BCC will have designed and set up a system whereby the ward councillors and citizens alike will contribute to, in line with the local government system in Malawi, guiding development away from unplanned settlement toward properly planned neighbourhoods with the full suite of land uses that would in the long term contribute to an improved quality of life of the residents of the city. By 2026, all new development in the City will be formally planned and approved prior to any settlement, services construction or building construction will be allowed.	

Table 20: Strategy 1.3: To freeze, with immediate effect, all unplanned development inside the City's boundaries as well as in the areas just outside of the boundary and enforce the provisions of the legislation.

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To actively target the formalisation of unplanned settlements where no planned urban services and drainage are provided and where people are very vulnerable to floods and landslides	<ul> <li>Council will strive to:</li> <li>gradually and carefully work with communities residing in unplanned areas to develop an upgrading strategy and method that is supported by them</li> <li>implement this development and upgrading strategy to improve living conditions and work toward integrated neighbourhoods in these areas as well.</li> </ul>	<ul> <li>P17</li> <li>Identify and map unplanned settlements in the city</li> <li>P18</li> <li>BCC will develop an unplanned settlement development and upgrading strategy together with the impacted communities and other institutional stakeholders such as ESCOM, BWB, Ministry of Lands and others.</li> </ul>	By the end of 2026, BCC has elaborated the Development and Upgrading Strategy Framework of this plan into a fully-fledged strategy supported by all stakeholders. By 2027, BCC commenced with at least 2 upgrading projects	Development and Upgrading Strategy Framework.
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Table 21: Strategy 1.4: To revise the development rights in the Blantyre and Limbe CBDs to enable and incentivise landowners to increase the intensity of development on properties within the CBD and to develop and re-develop under-utilised plots

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
Identify vacant, undeveloped and blighted land and buildings within the CBDs and devise frameworks that would encourage owners and developers to develop or re- developed their properties	Council acknowledges that the urban quality of the Blantyre and Limbe CBDs are not satisfactory and that it needs re-vitalisation to function as the vibrant social and economic hubs of the city.	<ul> <li>BCC will strive to:</li> <li>Facilitate the revitalisation of the Blantyre and Limbe CBDs through considering the age and conditions of buildings and vacant land and then determine increased development rights.</li> </ul>	<b>P19</b> BCC will formulate development provisions to guide the future development including FAR, coverage, minimum and maximum height provisions and prepare policy zones with the commensurate policies.	From January 2025 new buildings, conversions, redevelopments and/or renovations in the CBDs are subjected to the policy guidelines and designs and building plans will be evaluated against the policy provisions. Land and building owners are aware of BCC's intentions to redevelop and revitalise the CBDs and buys into the vision.	Various land use provisions for specific policy zones.

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Ensure that the intensity of new development is commensurate with the compact city objective.	Council acknowledges that the CBS can contribute significantly to the compact city objective through the increase of residential opportunities within the traditionally commercial land use typology normally found there.	<ul> <li>BCC will strive to:</li> <li>Use the CBDs to contribute to the compact city form, thereby bringing people closer to the main areas of employment, utilising infrastructure to its maximum and reducing the city's carbon footprint through reducing the need to travel.</li> </ul>	<b>P20</b> BCC will promote the intensity of development in the CBDs of the City through increasing the development rights of plots in the CBD to allow for greater building height, more mixed land uses and especially more high density residential land uses in a mixed land use environment	By the next census in 2038, the number of households residing in the CBDs have at least doubled from its 2018 levels.	
Designate areas for mixed land use that would aid in revitalising the CBDs.	Council envisions a CBD where a variety of activities and events for people of mixed age, mixed gender, mixed income, etc. comes together in a cosmopolitan environment that would be attractive to both tourists and local residents	<ul> <li>BCC will strive to:</li> <li>Promote the establishment of more mixed land uses in the CBDs to make it more attractive and lively.</li> </ul>	<b>P21</b> BCC will formulate a mixed land use policy that the City can use in planning decision making	From 2025, BCC uses its mixed land use policy to guide developments and re-zoning applications in the CBDs From 2026, all new development in the CBDs can be described as mixed use with a mixture of retail, office, and residential land use, not only vertically on a site but also horizontally in an area.	Mixed Land Use Policy
Lay down requirements for urban design guidelines for building form, public realm and mobility to achieve improved urban quality.	Council recognises that certain guidelines are required to guide BCC in setting the standards and evaluating development proposals in the CBDs	<ul> <li>BCC will strive to:</li> <li>Improve the urban quality of the CBDs by establishing and implementing urban design guidelines for the area of special design importance.</li> </ul>	<b>P22</b> BCC will formulate urban design guidelines and avail these to all prospective developers and interested land owners in the CBDs	From 2026, BCC requires all prospective developments in the CBDs to provide design information on how the building form, its relation to the public realm and its contribution to and inclusion of mobility infrastructure contributes to the urban quality and satisfy the urban design guidelines.	Urban Design Guidelines

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
Based on the land use survey, designate the CBD growth areas into those parts where land use change already commenced and where a conversion will have the least impact on the existing rights in the residential areas.	Council appreciates the need to allow for the re- purposing and re-zoning of land on the fringes of the existing CBDs to allow for its expansion and that such expansion contributes to the local economic development of the city	<ul> <li>BCC will strive to:</li> <li>Allow for the expansion of the CBDs both vertically and horizontally including by repurposing some of the land uses in defined fringes of the CBD and building on ongoing land use changes in the fringes of the CBDs</li> </ul>	<b>P23</b> Develop the CBD expansion policy, which includes the definition of development rights to be supported by the BCC for development in those designated areas.	Gradual expansion of the CBD into the expansion policy areas	CBD Expansion Policy
To ensure that the urban quality in the City is improved, areas of special design importance are declared, to be subject to special policy guidance Determine the preferred configuration of buildings in terms of land uses to support the objective.	Council desires that new development in new areas be appropriately planned from the onset to ensure a good quality urban environment.	<ul> <li>BCC will strive to:</li> <li>Provide guidelines for architects/designers and developers on design guidelines to uphold the highest design standards expected of the CBDs and the area of special design importance.</li> </ul>	<b>P24</b> Formulate a set of general urban design guidelines and provide a methodology for co- planning urban designs for the nodes. (All new development, re-development, renovation and maintenance in the areas of special design importance shall be to the highest standard to support and promote a positive image of the city. All new developments/redevelopments in the areas of special design importance must be designed by a registered architect.)	Development in the expansion areas are undertaken with responsibility and with a clear objective of ensuring a good quality urban environment.	Urban Design Guidelines

Table 22: Strategy 1.5: To define areas on the CBD fringes that are most suitable for the expansion of the CBDs in terms of current development trends, land use changes and planning logic.

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
To provide for general densification across the City	Council acknowledges that the current mean density in the city is too low and that this leads to increased cost of services and maintenance per unit of land and that it impacts the ability of the city to provide sustainable services. It also impacts on the viability of a public transport system.	<ul> <li>BCC will strive to:</li> <li>Increase the mean gross density in the city to 25 dwelling units per hectare by allowing the low and medium density areas to increase density through subdivision of existing large plots, subject to application and approval from BCC.</li> </ul>	<ul> <li>P25</li> <li>Determine appropriate residential densities across the city and in all zones and areas where the current gross density is lower than 25 dwelling units per hectare</li> <li>P26</li> <li>For all the residential areas in the city, determine the current mean densities and work out a densification policy that council can use to promote densification and evaluate densification applications.</li> </ul>	By 2029, the mean gross density in the city have increased from the current 8.95 hh/ha to 12hh/ha and further to 15hh/ha by 2034	General Densification Policy

## Table 23: Strategy 1.6: To provide for, promote and facilitate a general increase in density across the city and manage the densification process

# 7.2 STRATEGIC GOAL 1: SPATIAL PROVISIONS FOR A COMPACT CITY FORM WITH TARGETED GROWTH

The spatial translation of the compact city strategy is incorporated in the Spatial Framework Map. However, it is elaborated in more detail hereunder for the appropriate policy statements in tables 18 to 23

# 7.2.1 STRATEGY 1.1: TO DEVELOP SUITABLE UNDEVELOPED LAND IN THE CITY TO ITS MAXIMUM POTENTIAL BEFORE EXTENDING THE BOUNDARIES

#### 7.2.1.1 High Density Townships

The spatial framework in Map 19 shows the land areas designated to receive the future low, medium and high density townships. Many of these areas can be described as "brownfields" because there are various extents of low density settlement on it already, while "greenfields" with no settlement on it only occur in a few instances. Within the current city boundary, there is a realistic 3700 ha of developable land available. Of this, 2001 ha is earmarked for high density development with an additional 46 ha for high density infill in the existing developed part of the city. Map 20 provides the locality of these land portions and shows that it is located mostly in the north-eastern parts of the city Mzedi, Maone, Mapanga and South Lunzu areas, and to the south in the Chigumula and Misesa areas. This land is adequate to accommodate some 61 388 households at a mean gross density of 30 du/ha. It represents some 58.4% of the expected household growth over the plan period.

#### 7.2.1.2 Medium Density Townhips

Map 21 shows the areas designated for medium density township establishment. These areas total 1 376 ha (1 305ha brownfield and 71 ha infill) and can accommodate some 34 390 households at a density of 25 du/ ha. The medium density township establishment areas are located in the Mapanga and Mzedi areas in the north east, Chigumula in the south, Michiru and Likhubula in the north-west and on smaller land portions distributed through the city.

### 7.2.1.3 Low Density Townships

Map 22 shows the localities of the future low density townships. These areas total 278 ha and at a gross density of 15 du/ha can accommodate 4172 households. It is mostly located in Mapanga, Mzedi and New Mpingwe areas with some small infill areas spread across the city as shown in the map.
Together, the land designated for low, medium and high density township establishment at the designated densities is able to accommodate 95% of the household growth expected over the plan period. However, it may be that current land uses such as immature forests may delay the development of certain land portions and it is therefore prudent to provide for extension areas that would allow for timing issues and ensure that adequate land will be available.



Map 20: Areas designated for High Density Township Establishment



Map 21: Areas designated for Medium Density Township Establishment



Map 22: Areas designated for Low Density Township Establishment

## 7.2.1.4 The Urban Edge

The purpose of establishing a fixed urban edge is to define the prime area for development within the Blantyre City boundary. The urban edge serves to concentrate future development in the desired spatial area, contribute to intensification and densification through limiting urban sprawl and contribute to the optimal use of existing infrastructure. Following the assessment of current development and future development potential, the urban edge for Blantyre is set as show on Map 23.



Map 23: The Urban Edge

The urban edge is the current Blantyre City Boundary and it is therefore the intention of Council to limit urban type development to within the urban edge.

## 7.2.1.5 Development outside the Urban Edge

Development outside the urban edge is not within the jurisdiction of the BCC. However, the intention of the Physical Planning Act as amended is to remove the opportunity to do development and settlement without planning permission by declaring the entire country as a planning area. It is therefore prudent and logical to establish a joint committee in terms of section 15 (4) and 16 of the Local Government Act 2017 between the Blantyre City Council and the Blantyre, Thyolo and Chiradzulu District Councils for the purpose of coordinating settlement and development decisions in these neighbouring areas. It is important for BCC to have knowledge about planning and development applications submitted to the District Councils because it may have important impacts on the city and vice versa. With respect to spatial development outside the urban edge, BCC's policy intentions are clear, but it is important for the members of the joint committee to share a joint policy on how to approach urban type development and settlement outside the urban edge on the fringes of the city.

**Annexure A** to the BUSP contains a Policy Framework on Dealing with Urban Type Development outside the Urban Edge. This policy framework will be used as a starting point for the joint committee to elaborate it into a fully-fledged and elaborated policy to guide the work of the joint committee.

## 7.2.1.6 Provisions on Land not owned by BCC

Substantial portions of land designated for future development is land in private ownership. This makes it difficult to plan and arrange the establishment of future townships in a logical sequence. Some of these land portions are strategic land representing the most suitable land for development in terms of topography as well as proximity to existing services and existing places of work and business. Map 18 indicates broad ownership patterns but is not fine-grained enough to identify all the strategic land portions not owned by BCC. It does indicate that much of the land identified for future development is owned by BCC. At the same time, and in accordance with the provisions of the new Land Act, land indicated as owned by Ministry of Lands is now in the process of being handed over to BCC.

In order to bring as much strategic land as possible under its control, BCC will identify all meaningfully large tracts of privately owned land in the city and engage with its owners to explain the city's vision and attempt to obtain buy in from them. While owners will be allowed to develop such land themselves, they will need to obtain planning permission and satisfy all the quality and

standards requirements of the city. Should such land remain undeveloped for a period of two years after the initial discussions with the owners, BCC will institute measure to have it re-entered into the City's land reserve.

#### 7.2.1.7 Extension of the City Boundary

With the risk that the designated land inside the city may not be ready for development when required, and with a shortfall of about 500 ha to accommodate growth over the plan period, provision is made for the expansion of the boundary into five areas. The total area for the boundary extension is 2863 ha, broken down as shown in Map 24. While larger than the extent of land required, the extension serves a dual purpose in providing control to BCC over those portions of land that are most likely to develop outside the boundary.

The Blantyre District Development Plan 2017 -2022 provides an indication of the mission and focus of development in the Blantyre District. The provisions of the district development plan is aimed at food insecurity, low income levels, high population growth, poor standards of education, the poor road network, environmental degradation, early marriages and teenage pregnancies, high rate of youth unemployment, high morbidity and mortality, low access to potable water, high levels of malnutrition, the high rime rate and poor governance and accountability structures. Overlapping issues or strategies are largely limited to

- The development of SMEs to counter low income levels and poverty
- The establishment of a dump site for Blantyre District,
- Various afforestation and tree planting initiatives,
- disaster risk reduction, and
- safe water supply.

The plan lists a number of industries/companies that are operating outside the boundary of the city and also lists Mdeka, Lirangwe, Chileka, Lunzu, Nkula and Mpemba as important trading centres.

In addition, the plan states "Owing to housing shortages in the city, nearby Blantyre rural areas have witnessed relocation of high income city workers to some of the rural centres. Thus modern residential housing areas have mushroomed in areas such as Mpemba where the Blantyre District Council has opened up-market residential area mostly being developed by middle to high income city workers".

The approach and contents of the Blantyre District Development Plan clearly indicates that there are potential discrepancies and conflicts between the vision of the BDC and BCC with respect to urban type developments and mutual support between the two entities. The district cannot expect to depend on the markets of the city without at least acknowledging the difference in the roles of  $162 \pm D_{10}$  and

the (rural) district and the city. It is for this reason that BCC will seek and promote the establishment of a joint planning committee to address mutual issues of physical planning in rural and urban context.



Map 24: Boundary Extension Areas

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To provide guidance to the proposed cooperation, a Policy Framework for Physical Development Applications outside the Blantyre Urban Edge is attached to the plan as **Annexure "A"**.

To support this provision and ensure that it is implemented over the plan period, BCC will commence with the boundary extension process in 2025 with a completion target of 2030.

#### 7.2.1.8 Floodlines

The 200 Blantyre Urban Structure Plan already recommended that 1:50 year floodlines for the rivers and streams in the city be determined and be used to protect the rivers and guide safe settlement. This provision was not implemented and settlement close to rivers within floodlines occurred throughout the city. Tropical cyclones Gombe and Freddy exposed this failure and the 1:50 year floodlines were generated as an important component of the development of a Comprehensive Risk Atlas and Risk Management Strategy for Blantyre City. These were shared by NIRAS with the BUSP team and it was agreed to be incorporated in the BUSP as an important output of the Risk Management Project.



Figure 16: Examples of Development within Floodlines – Ndirande and Ginnery Corner

The 1:50 year floodlines were determined scientifically and will in future be the sole indicator of the risk of flooding of proposed new developments. The Blantyre Planning Committee will not accept or consider town planning and development applications unless there is a clear indication as to how the area or land concerned are influenced by the 1:50 year floodlines. A GIS shapefile

or digital data of the official floodlines are available from BCC and must be used to motivate all applications for development in the city. A few rivers were not included in the floodline determination process and for these buffers were used to determine the floodlines, beyond which no development will be allowed in future.



Map 25: Blantyre City 1:50 Year Floodlines

#### 7.2.1.9 Infrastructure Alignment Policy Framework

Malawi Vision 2063 holds that cities are poorly planned and do not adequately provide services such as water supply, electricity supply, waste management, education, health and transport." Urban planning and infrastructure and social service provision are inextricably linked and need to operate as a unit with shared goals and objectives to be successful. Council beliefs that failure to align objectives and operating principles contributes to unplanned settlement and causes long term problems for the city and its people.

The key role players in the physical planning and utility services provision are BCC, BWB and ESCOM. BCC will initiate consultations between the three parties to agree on a method of aligning the mission and objectives of each to pursue the same goal namely to sustainably plan and develop land within the city in a planned way and to prevent further unplanned development to occur to the medium and long term detriment of all citizens of Blantyre.

**Annexure B** of the BUSP contains a policy framework to be used as a guide to align the BCC, BWB and ESCOM development goals and activities.

It is to be noted that, once the BUSP is approved, section 37 of the Physical Planning Act requires that all government departments and statutory bodies must have due regard to the plan in formulating and preparing any project for public investment and development. This underpins the need for unity of purpose to be negotiated between BCC and its development partners.

# 7.2.2 STRATEGY 1.2: TO SET UP A TOWNSHIP DEVELOPMENT PROGRAMME AND COMMENCE WITH THE PLANNING AND SURVEYING OF NEW TOWNSHIPS

#### 7.2.2.1 Counteract the Need for Unplanned Settlement through Timeous Planning

It is a fact that the proportion of households in Blantyre that lives in unplanned areas are increasing, which means that unplanned settlement is growing faster than planned settlement. To counter this three main actions will be taken – apply the law, plan in advance and plan well.

To apply the law, development control must be done effectively to know what is actually happening on the ground and to prevent development or settlement without planning permission. Being an

institutional capacity issue, it is dealt with later under development management and control.

Forward planning is perhaps the most important action required to ensure successful implementation of the BUSP. Without planned plots being available to newcomers, it is very difficult and perhaps A man who does not **plan long ahead** will find trouble at his door

Confucius

politically impossible to prevent unplanned settlement. Timeous forward planning is therefore one of the core strategies of the BUSP. One can make many strategic plans but if there is no follow through into actual physical planning actions to create plots and neighbourhoods, it is worthless.

**Annexure "C"** to the plan contains the Five Year Plot Development Programme that was set up to reach the required number of planned plots over the first five years of the plan.

### 7.2.2.2 Town Planning Standards and Layout Design Guidelines

The 2000 Blantyre Urban Structure Plan projected the land requirement for various purposes on the basis of standards derived from the then Land Use Planning Guidelines and Standards. Provision is normally based on the number of facilities with a specific size for a specified population or number of households. This resulted in, for example, allocating a certain size or extent of land for industrial purposes or for commercial purposes or providing for a certain number of schools with a specified plot size. However, with these linked to planned layouts relative to the number of plots or households, it follows that when development takes place without planning or planning permission, none of these standards are used, with the resultant failure to provide for other essential land uses necessary to create liveable and integrated neighbourhoods.

In addition, it is observed that there are substantial problems and shortcomings with actual planned developments where town planning layouts were done. It is therefore necessary to combine the land use provision standards as contained in the Land Use Planning and Development Management Guidelines and Standards with layout design guidelines that planners must use to prepare quality layouts that comply with provision standards on the one hand and ensure better quality neighbourhoods on the other. **Annexure "D"** to this plan contains the Town Planning Standards and Layout Design Guidelines to be followed in both preparing new township layouts and to be used when layouts and development proposals are submitted to the planning committee for approval.

# 7.2.3 STRATEGY 1.3: TO HALT UNPLANNED DEVELOPMENT INSIDE THE CITY'S BOUNDARIES AS WELL AS IN THE AREAS JUST OUTSIDE OF THE BOUNDARY AND ENFORCE THE PROVISIONS OF THE LEGISLATION.

### 7.2.3.1 Halting Unplanned Settlement in Blantyre

Allowing unplanned or spontaneous settlement in the city has many negative impacts on both the city as well as on the people who live there. These include:

- ✓ a lack of infrastructure services such as water, electricity, sanitation, waste management and access roads,
- $\checkmark$  a settlement pattern which makes it difficult to retrofit such infrastructure at a later stage,
- ✓ failure to provide for social and economic land uses which in turn results in the unavailability of schools, health facilities, community facilities and opportunities for commercial activities,
- ✓ investment in housing structures which is difficult to recover, or to use as collateral to start a business or deal with shocks,
- ✓ vulnerability to disasters due to the absence of infrastructure such a stormwater management and settlement in areas that are unsuitable or at risk of flooding or landslides.

In addition, whereas most structures in informal or slum areas are generally temporary makeshift shelters, the majority of households in Blantyre's unplanned areas (53%) are of a permanent nature with another 43% being semi-permanent. This has obvious implications in terms of the difficulty to formalise the unplanned areas – much money was spent on building these structures and to make way for streets, services and other land uses, some must be relocated, which is difficult and expensive.

However, it is also acknowledged that planned and serviced plots are not affordable to all residents and that a range of options are required to satisfy different affordability levels. The concept of site and services were developed in Malawi but seems to have gone out of favour. However, it would be a practical and affordable solution to unplanned settlement. If people settle in a planned fashion in a site and services context, it provides for incremental service provision and land reservation for other uses without having to disrupt existing buildings and retrofit services.

For these reasons, BCC will do its utmost to halt further unplanned settlement in the city. Under the guidance of Malawi Vision 2063, BCC will utilise the provisions of the Physical Planning Act (as amended). More specifically, the Physical Planning Amendment Act 2022, under section 43 (a) determines that "Subject to this Act, a person shall not carry out any development in Malawi without a planning permission granted under this Part" thereby declaring the entire Malawi as a

planning area. Section 45 of the Amendment Act outlines the types of development permission that may be granted and these include outline development permission or development permission, advertising display, subdivision of land, change of use of land or building, permission for construction of utilities and services and amalgamation of plots.

Should residents fail to comply with the act, BCC has legal tools available to deal with it. These include enforcement notices (section 55), stop notices (section 59) and it will be used without fear or favour to control illegal development in the city. BCC recognises the right of residents served with such notices to appeal, and undertake to deal with these appeals professionally and to oppose any court action that may follow from such notices.

BCC further recognises the fact that it only has 60 days to deal with applications, failing which the applicant is at liberty to commence with the development.

Nevertheless, BCC also recognises that it is challenging, in such a large area as the city, to be aware of developments that commence without planning permission. BCC needs eyes and ears to keep it informed of such new development. While planning rangers are deployed, they are too few to cover the entire area effectively and it is necessary to devise a community based system to assist BCC to control development without permission.

BCC will therefore engage with the ward councillors of all the wards in the city and in a participatory manner devise a system whereby the ward councillors, leaders and communities become actively involved in controlling development in their neighbourhoods. To be effective, it will be necessary to achieve full buy-in by the communities and their leaders and it is therefore necessary to raise awareness and foster a clear understanding of the negative impacts of development without planning permission taking place.

## 7.2.3.2 Upgrading of Unplanned Settlement

The unplanned areas in the city occupies 31% of the land area (excluding the mountains and conservation areas), yet accommodate 63% of the population. In addition, it has insufficient provision of infrastructure services, access, economic infrastructure and other important land uses needed for a fulfilling and good quality of live. It is unacceptable that residents in Blantyre reside in such conditions and BCC will commence with the development of a process and guidelines for the upgrading and formalisation of unplanned settlement.

BCC recognises that this is a difficult and sensitive undertaking not to be launched in haste but rather on the basis of a carefully developed policy and methodology on the back of a participatory development process. **Annexure "E"** provides a basic Unplanned Settlement Upgrading

Framework which will be used to start and guide this process and progressively develop and adjust a methodology to implement wider and wider in the city.

# 7.2.4 STRATEGY 1.4: TO REVISE THE DEVELOPMENT RIGHTS IN THE BLANTYRE AND LIMBE CBDS TO ENABLE AND INCENTIVISE LANDOWNERS TO INCREASE THE INTENSITY OF DEVELOPMENT ON THEIR PROPERTIES

BCC has not defined clear development rights in the CBDs and other so called 'purple areas' (areas of special design importance) including floor area ratio (FAR), building coverage ratio (BCR), or building heights for different areas of the City. The impact of this lack of enforceable standards is the low intensity development prevalent in the CBDs. However, the practice has been to define minimum number of floors for different areas with development in the CBDs required to be 4 floors for Blantyre CBD and 3 floors for Limbe CBD. However, this has been an area of contention between BCC and developers as it has not been defined in any approved policy.

Strict single use zoning (commercial) in the CBDs has precluded residential development with negative consequences including long travel distances to employment centres, 'dead' CBDs after work hours and less vibrant commercial districts.

Defining clear development provisions for future development of the CBDs bring clarity and certainty, enhance the cityscape and the character of the CBDs and make the most efficient use of prime land through the development of undeveloped plots and redevelopment of old and dilapidated buildings. In the context of a compact city, the development rights seek to increase the intensity of development in the CBDs by defining new standards for FAR, BCR and building heights.

To this end, the CBDs have been zoned based on current common characteristics and planned future development and each zone is accorded a set of development rights.

## 7.2.4.1 Blantyre CBD – Redevelopment

Blantyre CBD has a significant amount of properties that are either old (but of no historical, architectural or cultural significance and are not listed as monuments) and/or dilapidated/blighted or are of such poor quality that they detract from the quality of the cityscape. These properties can be classified in 5 major blocks (see Map 26)

## • Redevelopment Policy Area 1: Southside of Haile Selassie Road.

This is the main shopping street of Blantyre CBD. It is dominated by old two storey buildings whose ground floors are used for retail and some upper floors used for residential accommodation.

#### • Redevelopment Policy Area 2.

This is a large block of properties along Browns Road and Lower Slater Road and is one of the oldest residential settlements in Blantyre that is also known as the Indian Quarter. It is dominated by low- rise, very old and often dilapidated buildings. A number of plots have already undergone redevelopments while others are blighted. It also has a number of vacant plots.

### Redevelopment Policy Area 3:

This is the stretch of properties on the eastern frontage of Hannover Avenue. It is dominated by low- rise, old and often dilapidated properties invariably used as garages, warehouses and other odd uses. There are also a number of vacant plots which are used as car parks. This block sits incongruously opposite a block that has seen recent modernisation with modern bank buildings and a hotel.

#### **Redevelopment Policy Area 4:**

Glyn Jones Road. This encompasses the northern and southern frontages of Glyn Jones Road. The southern side is dominated by shops and consists of two storey buildings. The northern side is sparsely developed with a couple of warehouses, some offices including dilapidated ones near the Clock Tower as well as a few old residential dwellings.

### **Redevelopment Policy Area 5:**

Mibawa Minibus Terminal, Blantyre Flea Market and Blantyre Market. These facilities are separated by the Mudi River and the Mandala Road but are adjacent to each other. Mibawa Minibus Terminal is a makeshift terminal that offers very poor public infrastructure to the travelling public. The Flea Market is a fairly new market but it is now too congested and surrounded by unsightly makeshift stalls. The Blantyre Market is an old but imaginatively designed market that is in a state of disrepair.

There are also isolated sites throughout the CBD that are ripe for redevelopment.

## 7.2.4.2 Re-development Policies

While the plan is proposing limited physical and outward expansion of the CBD, one of the ways of accommodating the growth of the CBD during the plan period is through redevelopment<sup>2</sup>. In addition to accommodating growth, redevelopment will also be a way to revitalize aging

<sup>&</sup>lt;sup>2</sup> "Redevelopment" refers to demolition and replacement of outdated buildings and parking lots, usually with larger new buildings, and usually in a more urban, pedestrian-friendly arrangement where previous development was suburban and lacking in such city comforts. Redevelopment can also refer to significant renewal of existing buildings often to new, more intensive uses.

commercial areas, contribute to the vitality of the CBD and add variety to housing opportunities in the CBD.

- $\checkmark$  BCC shall promote compatible infill and redevelopment in the policy areas.
- ✓ BCC shall encourage the redevelopment of these sites and use instruments that would encourage redevelopment including construction/rehabilitation of streets, walkways and cycle ways, storm drainage and utilities as well as car parking.
- ✓ BCC shall provide incentives that encourage redevelopment of under-utilized areas within the existing CBD.
- ✓ BCC shall prepare development briefs for the redevelopment of these blocks guided by the development rights as elaborated in Section 7.2.4.3 below.



Map 26: Map of Re development Policy Areas in Blantyre CBD

BCC shall use the Urban Design Guidelines attached as **Annexure "G"** to guide developers and architects in the design of buildings in the policy areas.

The development rights within the Blantyre CBD are revised as follows:

## Blantyre CBD Zone 1: Central Business Area - High rise

This zone is bound by Glyn Jones Road to the north, Sanjika Road to the south, Livingstone Road to the east and Laws Road to the west (see Map 27). This is the core of the CBD and the highest standards in terms of building height and massing and other design parameters are expected.

Mixed use development will be encouraged with the ground or more floors accommodating uses such as retail, restaurants, cafes, hair salons, medical practices and upper floors accommodating offices and residential units on top floors. A mixed Land Use Policy Framework for the city is attached as **Annexure "F"**.

The following FAR, BCR, building height, car parking requirements and setbacks will be applicable in Zone 1.

Floor Area	Building Coverage	Minimum Building	Car parking requirements (spaces/floor area)		Setbac	setbacks (m)		
Ratio (%)	Ratio (%)	height (# of storeys)		ŕ				
600	60	8	Commercial	Offices	Residential	Front	Rear	Side
			1/40	1/50	0.5 per unit	4	10	0



Map 27: Blantyre CBD Development Right Zones

### Zone 2: Fringe CBD Areas – Medium rise

Zone 2 comprises of the rest of the existing CBD (Map 27) where slightly lower standards shall apply.

Mixed use development will be encouraged with the ground or more floors accommodating uses such as retail, restaurants, cafes, hair salons, professional practices and upper floors accommodating offices and residential units on top floors.

The following FAR, BCR, building height, car parking requirements and setbacks will be applicable in Zone 2.

Table 25: Blantyre CBD Zone 2 Development Rights

Floor Area	Building Coverage	Minimum Building	Car parl (spaces/floor	king 1 area)	requirements	Setbac	ks (m)	
Ratio (%)	Ratio (%)	height (# of storeys)						
400	60	5	Commercial	Offices	Residential	Front	Rear	Side
			1/40	1/50	0.5 per unit	4	10	0

#### Zone 3: New CBD Expansion Areas – Low rise

These areas were identified through assessing land use changes around the Blantyre CBD and identifying those areas where some form of transition is already taking place. Although this approach could be seen as demand driven, it also makes planning sense and this zone is therefore dedicated to lower intensity expansion of the CBD.

The following FAR, BCR, building height, car parking requirements and setbacks will be applicable in Zone 3.

 Table 26: Blantyre CBD Zone 3 Development Rights

Floor Area Ratio (%)	Building Coverage Ratio (%)	Minimum Building height (# of storeys)	Car parking requirements (spaces/floor area)		Setbac	Setbacks (m)		
200	60	3	Commercial	Offices	Residential	Front	Rear	Side
			1/40	1/50	0.5 per unit	4	10	0

## 7.2.4.4 Blantyre CBD Revitalisation

#### Public Realm Improvements

The public realm in Blantyre CBD refers to streets including sidewalks, spaces and places that are shared by the community. It comprises all built form elements, exterior places, open spaces and streetscape linkages that support an environment for social engagement and economic activity.

BCC will promote and support<sup>3</sup> the following improvements of the public realm within the Blantyre CBD.

- ✓ Public Square at the corner of Chilembwe Road and St George Street to act as one of the focal points for civic and social life of the CBD.
- ✓ A city park, space for vending facilities and along the Mudi River at Mibawa as well as footpath and cycle track along the Mudi River.
- ✓ Every street shall have well maintained sidewalks to ease pedestrian flow and improve safety and connecting parking areas to retail and recreation areas for pedestrian access including intersection improvements to encourage safer pedestrian crossings.
- ✓ Street furniture such as benches, bins and lamp posts shall be designed to improve the street environment.
- ✓ St George's Street (Map 28) shall be pedestrianised. Restricting motor vehicle access along the shopping street shall allow shoppers to feel safe and enhance non- motorised connectivity between important nodes in the CBD including the public square.
- Avenue tree planting and landscaping to create shade and beauty shall be implemented along major streets including Victoria Avenue, Haile Selassie Road, Glyn Jones Road, Hannover Avenue and Zalewa Road.

#### Parking

✓ Multi-storey car parks shall be developed at the corner of Glyn Jones Road to cater for the northern section of the CBD and behind Haile Selassie Road at Mibawa for the southern section of the CBD. They will be so designed to accommodate commercial uses on the ground floor and could also have residential units on the top floors.

<sup>&</sup>lt;sup>3</sup> Whenever the plan states that "BCC will promote and support" it refers to in-principle support. Development permission must still be applied for and BCC is not under an obligation to approve such applications. Where there are particular red flags or fatal flaws such as poor accessibility, traffic issues, unavailability of services, or public objection, etc. applications may be turned down.

Examples of what is proposed for the improvement of the public realm is provide in Plate 6 hereunder.





Streets for people





Fitting a park in the CBD





Pedestrian Streets

Plate 6: Examples of Blantyre Public Realm Improvements

#### Mudi Riverfront

The Mudi Riverfront in the CBD will be developed from the Clock Tower to the Rangeley Park (Map 28). It will form part of a wider non-motorised transport corridor allowing for communities to connect to the Mudi River. The Mudi Riverfront initiative will promote the provision of ecosystem services; integrated green infrastructure; ecological restoration; riverbank restoration; stormwater management practices; waste management practices; improved public trail access; improved and widened habitat corridors; open-space and recreational amenities including a riverine public park; environmental education opportunities integrated with neighbourhoods and schools, incorporating recreational amenities along the river.

This area popularly known as Mibawa is a largely green area dominated by large Mibawa trees. A makeshift minibus park has been developed in the area. The area is the rear side of Haile Selassie Road shopping street. The Mibawa area will be the heart of the Mudi Riverfront. It will be developed to accommodate a modern minibus park, a multi-storey car park, a riverine public park, a river trail (footpath and cycle track) and public activities and events, such as sidewalk cafés, fairs and vendors.

- ✓ A river trail will be developed along the Mudi River from the Clock Tower to Rangeley Park/Blantyre Golf Course. The river trail shall be lined within a tree canopy to provide shade during summer months and street furniture such as waste bins, sitting benches, lighting and information signage shall be placed at strategic places.
- $\checkmark$  The river trail shall be wide enough to accommodate the needs of pedestrians and cyclists.
- Perpendicular connections located at strategic locations shall connect residents and different parts of the CBD to the riverfront and its facilities.
- ✓ Footbridges across the river will be constructed at strategic points to improve not only access to the river but also non-motorised connectivity between parts of the CBD and between communities and the CBD.
- Redevelopment of the Haile Selassie Road shopping area will provide opportunities to open shopping frontages at the rear of these plots. For these buildings, ground floor uses that are public in nature including retail, entertainment and restaurants will be permitted.
- ✓ The Mibawa area is important for conveying storm water from the urban environment to the natural environment. Proper stormwater management will aid in preventing a myriad of problems such as flooding and pollution.
- ✓ Location and development of infrastructure including the minibus terminal and the multistorey car park shall take the 1:50 year flood lines of the Mudi River into account.

Examples of the intended development of the Mudi Riverfront and river trail is provided below.





Walkways with lighting and tree canopy





Walkway furniture





Potential structures

## Plate 7: Mudi River Front and River Trial Development

## Markets

Markets are fundamental to the city's economy and access to food by the city population. Blantyre CBD has two markets – Blantyre Market and Blantyre Flea Market. Developed over 50 years ago Blantyre Market has lacked proper maintenance for years and is in poor state. The Flea Market is

overcrowded and now surrounded by unsightly makeshift structures. Unregulated street vending is an important issue in Blantyre CBD. To improve the quality and functioning of the markets;

- ✓ Blantyre Market shall be rehabilitated and modernised,
- ✓ Blantyre flea market shall be redeveloped and expanded to accommodate more vendors,
- ✓ a new vendors market shall be developed at Mibawa to take the pressure off the streets and the Flea Market, and
- ✓ connectivity between Blantyre Market, the Flea Market, the proposed vendors market, minibus terminal and multi-storey car park at Mibawa shall be enhanced to create seamless connectivity between these activity nodes.

## Heritage

BCC shall encourage the preservation and restoration of its built heritage including the listed buildings of Top Mandala and the Old Boma.



Map 28: Map of the Mibawa area of Blantyre CBD showing proposed land uses

## 7.2.4.5 Limbe CBD and its Environs Redevelopment and Revitalisation

A lack of investment in the Limbe CBD over many years has led to the dereliction of some buildings, blighted areas, poor roads and a general decline in the shopping environment. In addition, the Limbe CBD suffers from overcrowding and poor parking availability.

#### Zone 1: Central Business Area

A significant part of the Limbe CBD, especially the southern part, is blighted and the infrastructure is poor. There are however indications of redevelopment beginning to take place. Planning policies seek to revitalise the Limbe CBD by encouraging redevelopment of existing properties, improving its urban fabric and ambience as well as improving its infrastructure.

- ✓ Creation of living spaces above the shopping areas will be encouraged.
- ✓ The lower part of James Street will be pedestrianised and extended to connect to the Flea Market and to the Limbe Market to support street vending and enhance pedestrian connectivity between the CBD and the markets.
- ✓ Limbe stream shall be rehabilitated and development along Limbe stream shall not be permitted
- ✓ A light industrial and business park shall be developed west of Limbe Market to promote small and medium enterprises.
- Revitalisation of Limbe Market and expansion of the Limbe Flea Market to accommodate more vendors in purpose built facilities.
- ✓ Minibus park along Dunduzu Road for city minibuses only
- ✓ Expanded intersection at Dunduzu/Dalton to ease traffic flow



Plate 8: Vending Structures that may be used to improve James Street

## Zone 2: CBD expansion area

The existing central business area is bound by the railway line to the north, Limbe stream to the south and from the Midima Roundabout in the east and Limbe stream crossing to the west (Map 29).

The growth of Limbe CBD has been constrained within the area bound by the railway to the east and the Limbe stream to the west. The plan proposes to extend the Limbe CBD to the south of the current CBD into the forest adjacent to the existing CBD. This forested area, currently underutilized, offers a strategic opportunity for urban expansion. Allowing it to transform into an extended CBD area will promote growth, enhance accessibility, and provide additional space for development. In turn, this will enhance accessibility to businesses, services, and employment opportunities for residents.



Map 29: Limbe CBD and Expansion Areas

7.2.4.6 Limbe CBD Revised Development Rights

## Zone 1: Limbe CBD

The following FAR, BCR, building height and car parking requirements will be applicable in the Limbe CBD.

Table 27: Limbe CBD Zone 1 Development rights

Floor	Building	Minimum	Car parl	king r	requirements	Setbac	cks (m)	
Area	Coverage	Building	(spaces/floor	area)				
Ratio	Ratio	height (#						
(%)	(%)	of storeys)						
400	60	5	Commercial	Offices	Residential	Front	Rear	Side
			1/40	1/50	0.5 per unit	4	10	0

## Zone 2: CBD expansion area

Mixed use development will be encouraged with the ground or more floors accommodating uses such as retail, restaurants, cafes, hair salons, professional practices and upper floors accommodating offices and residential units on top floors.

Table 28: Limbe CBD Zone 2: Development Rights

Floor Area Ratio	Building Coverage Ratio	Minimum Building height (#	Car parking requirements (spaces/floor area)		Setbac	Setbacks (m)		
400	60	5	Commercial	Offices	Residential	Front	Rear	Side
			1/40	1/50	0.5 per unit	4	10	0

## 7.2.4.7 Revitalizing Limbe CBD

Limbe, a historic district etched in the annals of Malawi's development, stands as a testament to the country's rich heritage. Initially established alongside the advent of the railway in the early 20th century, Limbe's Central Business District (CBD) embodies a convergence of historical significance and contemporary challenges.

However, Limbe's CBD, once a thriving hub, now faces a plethora of challenges. Congestion and aging infrastructure have cast shadows over its vibrancy. Despite ongoing efforts by developers to reinvigorate some older structures, the lack of a unified vision and urban planning guidance has hindered the achievement of desired densities and functional dynamism.

#### Strategies for Revitalization

The key planning levers to be used to foster the revitalization of the Limbe CBD relate to increasing the development rights of properties in the city, setting minimum standards to foster higher buildings with more optimum land utilisation and promoting mixed land uses, both at a vertical and horizontal scale.

✓ Development rights and minimum requirements

Table 27 and Table 28 set the development rights and minimum requirements to be used for the Limbe CBD in future. Its intention is to encourage the more effective use of land and would enable property owners to develop and use their land and buildings more effectively and more economically.

#### ✓ Densification

The implementation of a minimum floor requirement of five stories for new developments aims to optimize land usage and encourages developers to build upwards, reducing sprawl and utilizing limited space within the CBD more effectively. It also fosters densification by allowing more businesses, residences, and amenities to coexist within a compact area. It promotes a more efficient use of space, encourages a diverse mix of uses and fosters a vibrant urban environment.

✓ Mixed Land Use

Encouraging mixed-use developments within the CBD involves integrating residential, commercial, retail, and recreational spaces within the same building or within the same area. It fosters a diverse and dynamic urban environment by accommodating various activities and enhancing convenience for residents and businesses. It contributes to diversity and leads to mixed land use, mixed incomes, mixed culture and mixed age groups in a cosmopolitan urban space. People can live, work, and engage in leisure activities within close proximity and mixed land uses promote walkability and reduce dependency on cars by creating neighbourhoods where essential services and amenities are within easy reach. It enhances the pedestrian experience and contributes to a more vibrant street life, invariably motivating people to be more creative in the making and use of urban space.

#### 7.2.4.8 The Blantyre – Limbe Corridor

The Chipembere Highway is the major corridor which forms the spine of Blantyre City dissecting the City from east to west and providing a direct connection between the CBDs of Blantyre and Limbe. The highway was recently upgraded to a dual carriage way from the Clock Tower to Standard Bank in Limbe.

The Blantyre Limbe Corridor is home to a variety of uses. These include institutional uses dominating the southern part of the corridor from Queen Elizabeth Central Hospital (QECH) to the Independence Arch; industrial uses



at Ginnery Corner and Maselema; residential uses at Mandala and Chichiri; commercial uses at Ginnery Corner, Chichiri and at Yiannakis; and recreation at Chichiri. The intensity of land use is generally low and densities are also very low along the whole length of the corridor. The quality of development is mixed from modern buildings to old and sometimes blighted buildings.

Many important services are located along this corridor and it has the potential to attract even more activity to the city because of the health services, higher education institutions and light industries located along the corridor.

#### Drivers of Change

✓ One of the main thrusts along this corridor is probably related to the tertiary education sector. It is reported that the Malawi University of Business and Applied Sciences (MUBAS) plans to increase its student numbers to 20000 or more in the next fifteen years. Other institutions of higher learning located along the corridor include the Kamuzu University of Health



Sciences (KUHES)-College of Medicine Campus; UNICAF University at Ginnery Corner; the Malawi College of Accountancy (MCA); Malawi School of Health Sciences (MSHS) - Blantyre Campus; the National College of Information and Communication Technology (NACIT); the Malawi School of Government-Blantyre Campus at the former Malawi

Posts Corporation college; DMI - St John the Baptist University-Blantyre Campus in Shire Buildings near Yiannakis Round about in Limbe. Most of these are growing steadily and most have serious shortages of accommodation facilities, self-provided or in the open market, for their growing student numbers.

- ✓ The largest referral hospital in Blantyre and Malawi, the QECH is located along the corridor and attracts a large number of people seeking medical services each day. Other institutions including the High Court of Malawi, Malawi Broadcasting Corporation (MBC), the headquarters of the Malawi Police in the Southern Region, Blantyre City Council and the Museum of Malawi are also located along this corridor.
- ✓ The main sports arena for Blantyre, the Kamuzu Stadium used to attract a large number of football supporters whenever it hosted national or international football games or other local and national events. The supporters from distant places require both accommodation and restaurant services. However, the stadium no longer carries FIFA approval and it needs to be either replaced or upgraded to fulfil its intended function and return to its former glory.

#### Challenges

- ✓ The Blantyre Limbe Corridor links the two CBDs and the Chipembere Highway also serves an important mobility function. However, the absence of a public transport or transit system that operates along this corridor leads to substantial congestion and resultant conflict between its mobility and activity functions. It is therefore important to, when considering redevelopment and revitalisation to consider this interaction.
- ✓ Access and parking should be carefully considered when densification and intensification are pursued and access from parallel and diagonal streets should be utilised as far as possible.

#### Strategies for Revitalisation

Most of the land in the CBDs and along the corridor is freehold land. It is owned and operated by companies and individuals for particular uses and development and re-development cannot be forced on anyone. Strategies for revitalisation and intensification of land uses in Blantyre, Limbe and along the corridor are therefore largely limited to the setting of development rights and requirements and the formulation of policies whereby BCC indicates its vision and set policy provisions that would promote and sometimes incentivise development in pursuit of the vision.

BCC supports the revitalization of the Blantyre - Limbe Corridor to promote higher intensity and density of development at an appropriate human scale, to optimize land utilization, to promote an aesthetically pleasing environment and to support a viable public transit system. It will support mixed use development where appropriate to create a vibrant and functional corridor.

## ✓ Development Rights

Varied development requirements will apply to commercial, residential and institutional uses along the corridor. Implementation of a minimum floor requirement is to attain densification, maximize efficient land use, promote vertical growth and concentrate services and people in the same place and therefore contribute to the creation of a compact city. Table 29 summarises the development rights along the corridor for various land uses.

Table 2	29: Blantvre –	Limbe Corridor	FAR. Co	verage and	Minimum	Heights
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Land Use Zone	Floor Area Ratio (%)	Building Coverage Ratio (%)	Minimum Building height (# of storeys)
Commercial	400	60	3
Residential	500	50	7
Institutional Housing	500	50	7
Mixed Use	500	60	7

The development rights in the above table is aimed at making high intensity development attractive to developers because it enables them to build more floor space on the same plot and thereby increasing its rate of return. It also incentivises mixed used development. With respect to other development rights, the following will be permitted and required.

#### Table 30: Limbe Corridor Parking requirements and Setbacks

Car parking requirements (spaces/floor area)Setbacks (m)						
Commercial	Offices	Residential	Mixed Use	Front	Rear	Side
1/40	1/50	0.5 per unit	As per mix <sup>4</sup>	4	10	0

 $\checkmark$  Densification and residential land use

Redeveloping the existing low rise residential and commercial buildings to up to seven floors aims to promote densification and therefore accommodate more residents per land unit, albeit students, lecturing staff or just ordinary families.

✓ Mixed Land Use

Mixed-use developments within the highway corridor will be promoted and supported. This means integrating residential, commercial, institutional and recreational uses within the same

<sup>&</sup>lt;sup>4</sup> Parking requirement for mixed use buildings shall be calculated as per the floor areas allocated to each land use in a particular building eg. If the building has both commercial and residential land use then parking is to be provided at a rate of 1/40m<sup>2</sup> for the commercial floor space component plus 0.5 parking spaces per residential unit.

area or even within the same building. It aims to create a diverse and multifunctional urban environment where people live, work, and engage in leisure activities within close proximity.

✓ Enhancing Urban Connectivity

Mixed-use developments promote walkability and reduce dependency on cars by creating neighbourhoods where essential services and amenities are within easy reach. This enhances the pedestrian experience and contributes to a more vibrant street life.

## 7.2.4.9 Specific Proposals along the Corridor

With its varied land uses and mixture of buildings of various heights and quality, there are particular land portions in the corridor that lends itself to redevelopment or requires redevelopment to maintain the prominence and importance of the corridor.

## Chichiri Housing Area

BCC will support redevelopment and densification of the Chichiri Housing Area block on the on the northern side of the Chipembere Highway from Chichiri Round About to the Independence Arch into a 'university town' that focuses on providing for accommodation in high rise blocks as well as amenities for students, staff and others living in the town. The area already has mixed land uses, especially along the Chipembere Highway. Behind this block along the Lali Lubani Road is an area popularly known as Poly Ally where MUBAS students and staff are accommodated. BCC will therefore support applications for land use change in this area provided that it meet the development requirements as elaborated above and that it takes the urban design guidelines for the **Area of Special Design Importance** into consideration.



Plate 9: Example of quality University Accommodation provided privately

## Maselema to Yiannakis Roundabout

BCC will further support the redevelopment of the area on both sides of the highway from Maselema to the Yiannakis Roundabout.

- ✓ Applications for commercial and residential development will be supported along the northern part of the Chipembere Highway.
- ✓ On the southern side of the Chipembere Highway, commercial development will be supported along the highway frontage while industrial development will be supported at the rear.
- ✓ With the exception of listed buildings in the area, rehabilitation of old, blighted and low rise buildings will not be permitted in favour of redevelopment along the building standards set out for the Blantyre-Limbe corridor in this Plan.

#### Redevelopment of the Vacant Land Around Chichiri Independence Arc

- ✓ The area around the Independence Arch stretching from the Museum of Malawi to the junction of Kasungu Crescent and Chipembere Highway on the south side of the highway as well as between Chichiri Primary and Secondary Schools and NACIT College on the north side present opportunities for redevelopment and significant infill development is possible to take advantage of its improved connectivity.
- $\checkmark$  The minimum floor requirements in this area shall be 7 stories.
- Mixed use development consisting of active uses on the ground floor, offices on upper floors and residential units on the top floors shall be supported in this area.
- ✓ Car parking requirements shall be as prescribed for the Blantyre Limbe corridor.



#### Plate 10: Low and Higher Rise Mixed Use Buildings

- Redevelopment of the Kamuzu Stadium and Surrounds
- ✓ The Kamuzu Stadium opened in 1955 and has outlived not just its aesthetic quality but also its structural soundness resulting in capacity reductions and restrictions in recent years. It, together with the Upper Stadium occupy a prime location with excellent connectivity in the heart of Blantyre along the Blantyre-Limbe corridor but the Kamuzu Stadium is now no longer fit for purpose. At the same time, a stadium is a significant piece of social

infrastructure which has the potential to become an important facility for community recreation and source of community pride.

The Kamuzu Stadium and Upper Stadium site shall be redeveloped to accommodate a new modern stadium. Stadiums are very expensive investments and innovative ways to make the investments viable will be employed including a design brief to make it as multi-purpose as possible. For example, stadium parking lots can be used on weekdays for city commuters. Office space can be rented within the stadium. Fairs and vending stalls on the stadium grounds can be visited all week long. The stadium can be designed to become a small entertainment city where people gather and meet and have a good time. Suitable open space around the stadium is also available to ensure a quality public realm.

#### Revitalization of the Trade Fair Grounds

- ✓ The site is managed by the Malawi Confederation of Chambers of Commerce and Industry (MCCCI). The current design of a self-built flea market setup is not commensurate with the advances made on similar facilities in other countries. It is occupying the most strategic location but the structures present a cityscape similar to a squatter settlement.
- ✓ BCC will pursue the development of a modern international exhibition and conference centre at the current Trade Fair Grounds.

In addition to these particular land portions, BCC will support any other development and redevelopment in the corridor zone that supports BCCs vision for the corridor as described above.



Plate 11: Modern Exhibition and Conference Centre design



Map 30: Chipembere Corridor Map.

## 7.2.5 STRATEGY 1.5: TO DESIGNATE AREAS ON THE CBD FRINGES FOR THE EXPANSION OF THE CBDS

## 7.2.5.1 CBD Expansion Policy Development

The CBD Expansion Policy focuses on delineating expansion areas adjacent to the existing CBD, strategically identifying zones suitable for controlled development. It outlines the principles, guidelines, and parameters for development rights, zoning regulations, infrastructure improvements, and sustainability standards within these designated areas.

While the expansion policy areas have been delineated in maps 27 and 29, **Annexure "H"** outlines the CBD Expansion Policy Framework. This shall be read with Annexure "G", which provides guidance on the urban design requirements for development in the expansion area as well.

## 7.2.6 STRATEGY 1.6: TO PROVIDE FOR, PROMOTE AND FACILITATE A GENERAL INCREASE IN DENSITY IN SUITABLE AREAS OF THE CITY

#### 7.2.6.1 General Densification Policy

Residential densities in Blantyre City is generally low, but more so in the old suburbs such as Sunnyside, Namiwawa, Nyambadwe, Mount Pleasant, Mandala, old Mpingwe, and BCA. Newer areas such as New Mpingwe, Kandjedza Forest and Chapima Heights also have low densities. While it is acknowledged that these low density areas are part of the character of Blantyre and are desirable for the higher income, it is also recognised that some of these densities are simply unsustainably low and more and more owners are considering subdividing their plots or building more than one house. In some cases, these plots are also redeveloped into a number of units for residential use. The sectional titles act that is currently in bill form is also likely to motivate land owners to re-develop and densify their properties.

In the interest of progressing towards a compact city form, BCC supports densification in general. However, this needs to happen in a responsible way with due consideration of services capacities, the impact on traffic and the impact on surrounding owners.

Upon application, BCC will favourably consider applications that achieves densification and intensification of land use in the densification policy zone as shown in Map 31. This densification area falls entirely within the area of the city with access to waterborne sanitation. BCC holds that, at this point in time, it would not be prudent to promote and support densification in areas without access to waterborne sanitation. It is not desirable to, for example, service a high rise block of apartments without water borne sanitation or to serve a sectional title complex of 40 units without access to waterborne sanitation. If individual subdivisions are allowed in an area with pit latrines, the cumulative impact of densification is the same.

However, BCC will consider applications for densification in other areas of the city provided that it includes a packaged water borne sanitation system with acceptable effluent qualities with an ensured maintenance and monitoring system, and that other planning considerations are favourable without fatal flaws or red flags.

#### 7.2.6.2 Payment of a Development Contribution

The effect of densification is cumulative. In the beginning, when only a few extra houses or plots is added to an area, infrastructure such as water supply, sanitation, streets and intersection capacities would generally be able to cope with the additional load. However, after a few years of densification the additional load will eventually outstrip infrastructure capacities and this will result in pressure on BCC to increase such capacities to serve an area. However, those that did not **191** | P a g e
benefit from the densification are then also expected to contribute to service upgrades which benefitted only a few.

To enable BCC to cope with this increased demand over a period of time, BCC will require and endowment to be paid to the city when the development rights for an individual property is increased as a result of the granting of a subdivision application or a re-zoning which enable the owner to either sell one part of a subdivided plot or to construct more units than was the allowable under the original right. BCC will charge a fee of 5% of the value of the additional plot created through a subdivision, the value of which will be determined by the city valuer. The right only comes into effect once endowment is paid and the endowment will be paid into the cities special "betterment" fund as established under this plan.



Map 31: Densification Policy Zone

## 7.3 STRATEGIC GOAL 2: STRATEGY TABLES TO PROMOTE AND FACILITATE LOCAL ECONOMIC DEVELOPMENT

Malawi Vision 2963 builds on that of Malawi's founding leaders to not only achieve political freedom, but attain economic independence and high quality of life for all. With industrialisation

as one of the three pillars of the vision, the sentiment of employment creation and the facilitation of economic opportunity linked to a corruption free and easy to do business mind set, the BUSP sets a spatial framework that would promote local economic development and the supply of economic infrastructure to best support the economy of the city and its businesses.

We must never forget that it is the private sector - not government - that is the engine of economic opportunity. Business, particularly small businesses, flourish and can provide good jobs when government acts as a productive partner

Local economic development is critical for a city as it serves as

the cornerstone of its vitality and prosperity. A thriving local economy not only bolsters the standard of living for residents but also generates employment opportunities, foster community well-being and reduces poverty. Additionally, a robust local economy can attract investments, businesses, and skilled talent, driving innovation, infrastructure development, and a higher tax base. This, in turn, supports essential public services like transport, education, healthcare, and public safety. Local economic growth enhances a city's resilience by diversifying its economic base and reducing its vulnerability to external economic shocks. Local economic development is the linchpin for building a vibrant and sustainable urban environment.

The core focus of the BUSP as it relates to local economic development is on facilitating sustainable economic expansion, ensuring that it offers diverse avenues for all residents to engage in economic activities, whether through self-employment or formal jobs.

While the BUSP is not the primary driver of local economic development, it takes the following spatial principles into consideration that support local economic development.

- ✓ Compact cities tend to be more economically efficient.
- $\checkmark$  Activity nodes and corridors benefit from a mix of land uses.
- $\checkmark$  The principle of least cost should be considered in development.
- ✓ Regional accessibility and mobility should be adequately provided for.
- ✓ Agglomeration and specialisation principles should guide planning.
- ✓ Flexible land use zoning and policies should encourage entry-level economic opportunities.
- $\checkmark$  A balanced road network is essential to support the formal and informal economy.

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- ✓ Road hierarchy should align with the land use strategy to ensure future mobility and accessibility.
- ✓ Optimal utilization of existing infrastructure is crucial in city planning.
- $\checkmark$  The spatial framework should promote an efficient public transportation system.

Five strategies are used in the BUSP to promote and facilitate local economic development. These are:

- The promotion of a logical system of nodes and corridors.
- Ensuring that enough land is set aside for commercial and industrial land use in all new layouts submitted for approval to BCC by setting and enforcing provision standards.
- Promoting mixed land use.
- Ensure that there is adequate economic infrastructure such as roads, water, electricity, waste management, etc. which are required for doing business and taking investment decisions.
- Supporting the informal sector, which plays a major role in the city's economy.

Table 31 to Table 35 provide the strategic provisions while the spatial implications for these are elaborated in section 7.4.

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
Identify a logical system of nodes and use zoning and bulk provisions to intensify land use in and around theses nodes	Council acknowledges the paramount importance of recognising and cultivating key economic nodes within the city. These economic nodes are focal points driving business activity, fostering growth, and attracting a diverse range of businesses. Our city aims to harness the potential of these nodes strategically and sustainably, aligning them with our broader economic development goals.	<ul> <li>BCC will strive to:</li> <li>Identify a logical system of nodes and use zoning and bulk provisions (policy zones) to intensify land use in and around these nodes.</li> <li>Promote the establishment of mixed land uses in these nodes.</li> <li>Ensure that, in new development and layouts, adequate land is planned and land uses integrated into nodes of opportunity and thereby contributing to integrated neighbourhoods.</li> </ul>	<ul> <li>P27</li> <li>Within the existing fabric of the City 8 district centres and 15 local centres are identified and policy areas determined. The diagrammatic position of 6 future district centres are also determined and any future layout covering that area will be required to include a district centre.</li> <li>P28</li> <li>Small-scale and light industrial use of land will normally be permitted at the identified district centres provided that it is properly constructed and does not impact negatively on the surrounding land use.</li> <li>P29</li> <li>Land use allocation in all future development shall be required to follow the provision standards for business and industrial land as determined in the Town Planning Standards and Layout Design Guidelines of the city.</li> </ul>	By 2029, the identified nodes are known in the community as district and local centres and that the city will favourably consider mixed land uses and formalisation in these centres. By 2029, all the identified district centres without access to utility services and sanitation will have been provided with such services, and public amenities will be available. By 2026, BCC will have elaborated an industrial development policy aimed at integrating small scale industrial enterprises into the fabric of the district centres.	Node policy areas and guidance. Town Planning Standards and Layout Design Guidelines.

## Table 31: Strategy 2.1: To transform the existing fabric of the city and the town planning provisions to increase opportunities for new business activities and employment creation

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
Prioritise economic infrastructure development and maintenance within key economic nodes	Council acknowledges that for the CBDs and the identified nodes to fulfil its function, it requires good access and the full range of utility services and the management of waste and wastewater.	<ul> <li>BCC will strive to:</li> <li>Ensure that utility services are available in the CBDs, in all the nodes and in all dedicated business and industrial areas. These include water supply, sanitation, reliable electricity supply and solid waste management</li> </ul>	<b>P30</b> BCC, together with its partners (BWB and ESCOM) will commit to the provision of key infrastructure at the nodes that have no access to services to facilitate its development.	From 2026, two district centres without proper services will be upgraded per annum to ensure that the infrastructure necessary to support economic development is available.	Industrial development policy framework
Ensure that there is adequate provision for and effective use of land for commercial and industrial purposes in the city to accommodate economic growth and satisfy the projected need over the plan period	Council acknowledges that, in the interest of local economic development, industrial and business land must be available to investors whenever required. However, Council is also committed to avoid a situation where land is allocated to an investor and is then not developed for a long time.	<ul> <li>BCC will strive to:</li> <li>Avail serviced industrial and commercial land to the private sector through dedicated new business and industrial zoned areas and through ensuring that all new layouts provide commercial and industrial land to the standards set in the Town Planning Standards and Layout Design Guidelines.</li> <li>Allocate land conditional to it being developed within a set period of 2 years after allocation, failing which the allocation will be automatically cancelled and the land revert back to the Council.</li> </ul>	<ul> <li>P31</li> <li>Dedicated provision' is made for industrial land in specific areas of the City with a view of improving the equitable distribution of industrial land.</li> <li>P32</li> <li>Through the Town Planning Standards and Layout Design Guidelines, BCC will ensure that all new townships also provide industrial and commercial zoned land that would be suitable to satisfy the needs of small scale commerce and industry within the district and local centres.</li> <li>P33</li> <li>The decentralisation of industrial activity shall be promoted through flexible zoning policies and through the provision of incentives for industrial development in the urban district centres.</li> </ul>	By 2026, no prospective investor in Blantyre must consider to take their business elsewhere as a result of the unavailability of business and industrial land or a result of red tape.	Industrial land allocation plan Town Planning Standards and Layout Design Guidelines.

#### Table 32: Strategy 2.2: To prioritise the development and maintenance of economic infrastructure and ensure adequate land availability

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
Develop an integrated multi- modal strategic arterial transport network to guide future road and transport investments, inclusive of the main future public transport corridors and the NMT backbone	Council acknowledge the importance of and will pursue the development of an integrated transportation system that connects the key economic nodes and promotes access to key economic centres within the CBDs, followed by district centres and local centres. Council further acknowledges the importance of NMT and is committed to include provision for all transport modes in future road planning and design.	<ul> <li>BCC will strive to:</li> <li>Work toward conditions that would eventually enable the implementation of a public transport or transit system. These include</li> <li>~ suitably dense settlement which will ensure enough passengers to make the system viable,</li> <li>~ reserves that are wide enough to accommodate the entire range of transport modes – (vehicles, cycles, pedestrians skates, etc.)</li> <li>~ a logical road hierarchy linking the nodes and other areas of gathering and forming the backbone of the integrated network.</li> </ul>	<ul> <li>P34</li> <li>Connect key economic nodes through multimodal transportation system, with public transit nodes coinciding with the nodal structure and augmented with nonmotorised transport options, including pedestrian paths and cycling lanes.</li> <li>P35</li> <li>BCC shall clearly mark bus and taxi stops with bus stop signs, bus stop shelters, and improve transport user safety through pedestrian crossings, physical barriers near bus and taxi stops, lighting at night and access gates adjacent to bus and taxi stops.</li> <li>Augment the physical infrastructure with appropriate and maintained traffic and transport markings</li> <li>P36</li> <li>Evaluate the current parking requirement standards for various land uses and confirm or amend as necessary (Parking Policy)</li> </ul>	See strategy 5	

Table 33: Strategy 2.3: The City will develop an integrated transportation system that connects the key economic nodes, promotes access to key economic centres and facilitate regional, national and international connectivity.

## Table 34: Strategy 2.4: BCC will create an enabling environment for informal traders to transition into formal businesses, providing them with legal status, access to resources, and essential support.

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
Develop new/adapt existing informal trading regulations to enable the activity to operate in an orderly fashion and facilitate the transition from informal to formal operations while safeguarding existing rights and interests. Include home occupations in the regulations. Enable a mixed land use environment on the basis of complimentary land use being allowed to cluster together	Council recognises the importance of harnessing informal trading activities to empower small businesses and enhance economic development. Council aims to create an enabling environment for informal traders to transition into formal businesses. Council is further committed to facilitate this transition while safeguarding their rights and interests.	<ul> <li>BCC will strive to:</li> <li>harness the initiative and resilience of informal business people by providing them with legal status, access to resources, and essential support.</li> <li>create spatial conditions and regulations that would contribute to their ability to grow their businesses, and take it into the mainstream economy to increase employment and growth.</li> <li>Create conditions that would allow for the incubation of new initiatives through allowing fledgling businesses to start in residential homes.</li> </ul>	<ul> <li>P37</li> <li>Develop/revise informal trading and street trading policies and regulations to guide the activities and its management and control. This should include components such as legal status, health and safety compliance, simple registration procedures, training and capacity building, access to technology and Government support.</li> <li>P38</li> <li>Offer legal recognition to small businesses, including home-based and street vendors, granting them access to contracts, bank accounts, and legal protections.</li> <li>P39</li> <li>Provide guidance and support for informal traders to meet health and safety standards, ensuring the safety of their products for consumers.</li> </ul>	Informal trading in the city happens on an ad-hoc basis wherever people decide to do so. As a result it is uncoordinated, informal, normally encroaching on streets and sidewalks and are without the required legal framework or mind set to recognise its value and harness its potential. By 2025 BCC effectively assist informal business in the city by ~ simplifying registration procedures, ~ offering training and capacity building opportunities, ~ facilitating mentorship and networking opportunities, ~ assisting to source access to technology, and ~ government support	Revised trade regulations and by -laws

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
Design and develop a flagship informal market which can serve as an example for future projects to formalise areas where mostly informal business is taking place and document it for replication to other nodes that are largely informal. Develop new markets at the identified district and local centres and provide economic infrastructure.	Council will foster the development and sustainable maintenance of informal trading markets as integral components of the local economy.	<ul> <li>BCC will strive to:</li> <li> create a supportive and enabling environment for informal traders, recognizing their essential role in economic growth. </li> <li> In consultation with the informal traders, redesign and re-develop the James Street link between the Limbe Market and the Limbe Station into a pedestrian mall with facilities for informal traders, hawkers and vendors. </li> </ul>	P40 Determine the locality of new markets for development by BCC. P41 Formulate the design guidelines and standards for the future development of such markets.	By 2026, BCC has commenced with the consultative process and the design process to improve the current informal trading taking place along James Street and Dalton Road with the view of turning it into a pedestrian mall where the same traders can ply their trade in a much improved environment. By 2030, BCC has added three new market buildings in the three most suitable nodes	James Road Broad Upgrading suggestions
To devise a fresh approach, methodology and regulatory framework for hawking and vending and street trading in the city.	Council acknowledge street trading and hawking and vending as an important economic activity in the city and wishes to find ways in which this can be harnessed and supported without compromising the	<ul> <li>BCC will strive to:</li> <li>Engage the street traders and hawing and vending community to jointly find an optimal arrangement whereby the interests of road users, formal business and street traders are reconciled and a regulatory framework</li> </ul>	<ul><li>P42</li><li>In a participatory process, identify and map the areas suitable for street trading and prepare a street trading areas map.</li><li>P43</li><li>Review/Formulate a hawking and vending/street trader policy and regulatory framework.</li></ul>	By 2026, BCC has commenced with the consultation with the street traders and hawkers and vendors to share the views of all parties, agree on the rationale of some form of regulation and then agree on the spatial and regulatory arrangements that would best serve the varying interests in this matter.	

## Table 35: Strategy 2.5: The city will foster the development and sustainable maintenance of informal trading markets as integral components of the local economy.

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rights of r       the formation       Enforce all laws and       Council a	oad users and l sector.	agreed to that would be optimal for all the stakeholders. CC will strive to:	P44	By the end of 2024, BCC has	
by-laws with respect to markets and street to markets and street use of education and outreach, inspection and monitoring, fines and penalties, permitting and licensing, collaboration with others, incentives and rewards and legal action when required. that enfe laws, by regulation catalyst f local underscore for uphole adherence environmen nurtures expansion investmen	orcement of -laws, and s is a central for fostering economic ent within an framework. further es the need ding stringent to legal ks to an ent that business and attracts ts.	Ensure that all the residents of the city are made aware of the laws, regulations and by-laws under which the city operates through public outreach and civic education campaigns. Enforce the laws and by- laws strictly and without fear or favour. Decisively deal with any and all unwarranted and/or corrupt interference to enforcement actions.	<ul> <li>Revise the areas identified for hawking and vending in the previous plan and map accordingly.</li> <li>Hawking and vending activities will normally be allowed in designated areas and subject to certain conditions</li> <li>P45</li> <li>BCC resolve to enforce all laws, regulations and by-laws without fear or favour and will undertake a public information campaign which details all of these laws and regulations and through educational outreach explain each rule in laymen's terms, what is expected from the public and how BCC will deal with breaches of such laws/regulations.</li> </ul>	hade a summary of an the laws regulations and by-laws under which it operates and translated it into laymen's terms. By mid 2025, BCC completed it public outreach campaign to communicate these to its constituents. By 2026, BCC will have an inspection and enforcement plan prepared and resourced and commence with its implementation.	

## 7.4 STRATEGIC GOAL 2: SPATIAL PROVISIONS TO PROMOTE AND FACILITATE LOCAL ECONOMIC DEVELOPMENT

The spatial translation of the local economic development promotion strategy is incorporated in the Spatial Framework Map. These are derived from the strategies and concretised in spatial context with the required policy guidelines for decision making and monitoring.

## 7.4.1 STRATEGY 2.1: TO TRANSFORM THE EXISTING FABRIC OF THE CITY AND THE TOWN PLANNING PROVISIONS TO INCREASE OPPORTUNITIES FOR NEW BUSINESS ACTIVITIES AND EMPLOYMENT CREATION

Blantyre residents are resourceful and find a variety of ways within the urban space to do some form of business to sustain themselves. As a result, there are many formal and informal markets in the city. People also trade next to the road, have set up informal trading places next to formal markets and often hawk and vend in the streets at various places.

BCC wishes to increase opportunities for establishing formal businesses, for promoting small enterprises and enable informal economic activity to also flourish in an ordered, clean and conducive environment.

#### 7.4.1.1 Nodes and Corridors

A system of nodes and corridors is generally considered as the most effective way in which to intensify land use and create more opportunities for small, medium and large business to establish.

"Nodes are defined areas of development that have a variety of land uses, with concentrations of density and a concrete sense of place that people can identify with"

"Corridors are major connections between nodes facilitating multiple modes of transportation, often with more intensive transit investment along them". Corridors, once served with a public transit system, can develop into linear areas of higher density and intensity development without compromising the mobility functions of the corridor. BCC will treat the establishment of activity corridors with care until such time as a public transport system that can deal with such linear more intensive development.

It is crucial for a city to identify and recognise key economic nodes and corridors because they serve as the vital arteries of economic activity and growth. Nodes, typically characterised by high business concentration and diverse industry sectors, are pivotal in driving job creation, attracting investments, and fostering innovation. The recognition of employment centres, innovation hubs, transportation corridors, and industrial zones not only promotes a thriving local economy but also enhances infrastructure development, public services, and the overall quality of life for residents. By identifying and nurturing these economic hubs, cities can strategically position themselves to capitalize on market trends, emerging sectors, and community needs, thereby ensuring long-term prosperity, resilience, and inclusive development.

BCC acknowledges the paramount importance of recognising and cultivating key economic nodes in the city. These economic nodes are focal points driving business activity, fostering growth, and attracting a diverse range of businesses. BCC aims to harness the potential of these nodes strategically and sustainably, aligning them with our broader economic development goals.

The urban structure plan has systematically identified key economic nodes. These nodes are concentrated areas of businesses, industries, and economic activity that can be utilised to stimulate growth and diversify the city's business landscape.

The economic nodes and corridors have been subdivided into tiers, with Tier 1 representing the most important economic nodes and corridors and Tier 2 and Tier 3 representing the district and local centres or nodes respectively.

Tier 1 economic nodes and corridors include:

- Blantyre CBD
- Limbe CBD
- Blantyre Limbe Corridor including the Makata, Ginnery corner and Chichiri

Tier 2 nodes are district centres:

- Kameza,
- Luwanda,
- Ndirande,
- Chigodi,
- Banana,
- Chigumula,
- Kubya, and Chilomoni

In addition to these, 6 more future district nodes area diagrammatically noted in the map with the intention that when development reach these areas, planners must include a district node with all its related land uses in such layouts.

Tier 3 nodes are local centres:

- Chirimba,
- Chikapa,
- Mpanga,
- Bangwe,
- BCA,
- BCA Kandodo,
- Misesa,
- Chilobwe,
- Soche,
- Nancholi,
- Manyowe,
- Chinseu,
- Musa Magasa, and Mulunguzi.

The locality of the CBDs, district, local and future district centres are indicated in Map 32.

#### 7.4.1.2 Mixed Land Use Policy

In addition to identifying the nodes, a mixed use policy area for each node was identified and mapped. These policy areas for each node is subject to the mixed land use policy of the city attached as **Annexure "F"** and the provisions of this policy will be used to guide decision making and promote land use change and intensification at the nodes. These are contained in the GIS database of the BUSP.



Map 32: Designated Nodes

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### 7.4.2 STRATEGY 2.2: TO PRIORITISE THE DEVELOPMENT AND MAINTENANCE OF ECONOMIC INFRASTRUCTURE AND ENSURE ADEQUATE LAND AVAILABILITY

#### 7.4.2.1 Economic Infrastructure

Due to its critical nature for economic development, access and maintenance of economic infrastructure, particularly within Tier 1 and 2 nodes and corridors must be prioritised within city planning. This includes providing reliable energy, water supply, sanitation, refuse removal and telecommunications networks.

This infrastructure must be optimised to develop a more compact city that will reduce the unit cost of infrastructure to the city and promote mixed developments that allow residents to work, live and play in the same neighbourhood. It must further promote inclusive development that provides affordable housing options to marginalised communities, while promoting a walkable city that reduces the need for motorised transport options.

The main economic infrastructure to be developed and maintained by the city include:

- Transportation Infrastructure such as bus and taxi ranks, roads, bike lanes, pedestrian paths, bus stops, etc.
- Utilities Infrastructure such as, solid waste management, public facilities, schools, health facilities, etc.
- Tourism and cultural infrastructure, such as parks, sport, and recreational facilities, etc.

The city must further promote the development and maintenance of infrastructure that does not fall under its mandate, including:

- Water and water systems, energy infrastructure and sanitation infrastructure
- Telecommunications Infrastructure such as broadband and digital connectivity.
- Upgrading and restoration of tourism and cultural infrastructure, such as museums, national parks within the area, etc.

BCC will prioritise economic infrastructure development and maintenance within the CBDs, the Blantyre Limbe Corridor, the other large scale commercial and industrial areas of the city, in the designated district and local centres and in the future commercial and industrial areas.

#### 7.4.2.2 Industrial Land Provision.

Besides ensuring that economic infrastructure are provided to support the city's economy, shortage of land for commercial and industrial use is even more crucial because even if services are available but

there is no land, it would stifle economic growth and chase investors away. To ensure that enough land for industry is available to accommodate growth, BCC will follow a two-pronged approach.

**Firstly**, the BUSP designated approximately 231 ha of land for future industrial development and use across the city. These are shown in Map 33 below.

**Secondly,** the Town Planning Standards and Layout Design Guidelines (Attached as **Annexure "D"**) provides the provision standards for industrial land as an integral part of the urban fabric. Whenever new township layouts are designed and submitted BCC will require that at least 5% of the land area or  $20m^2$  of land per household shall be zoned for light industrial purposes. This shall be worked into the layout and located on the edges of the neighbourhood centre in such a way that it would not negatively impact other land uses. This will ensure a spread of smaller scale industrial land (and opportunities) in a planned way throughout neighbourhoods and increase localised industrial opportunities.



#### Plate 12: Examples of Small-scale Industry

There are many options to develop such facilities but it is mostly small affordable units, the size of a garage, half a garage or even a double garage from where industrial type activities such as joinery, welding manufacturing, upholstery, general service and repairs, plumbing, vehicle servicing, etc. can be accommodated.



Map 33: Current and Future Industrial Land Use

#### 7.4.2.3 Commercial Land Provision

A similar approach is followed for commercial land with the exception that it is more integrated with other land uses, simply because there is less conflict and more synergy between commercial and other land uses. To ensure adequate commercial land supply, a three pronged approach is used.

**Firstly**, BCC supports and promotes the intensity of commercial land use in the main commercial nodes of Limbe and Blantyre CBDs as well as the Limbe – Blantyre Corridor. Here, more efficient use of land through increased development rights as discussed previously will add to the current stock of commercial floor space.

**Secondly**, BCC designated mixed land use policy zones around the district and neighbourhood nodes. These are greater in extent than the current commercial land uses and allows other land uses within the node to apply for commercial land use and thereby increase the commercial activity, income and employment creation at the nodes.

This policy zone identifies the area wherein BCC will allow and promote more commercial land use



Figure 17: Kameza District Node Policy Zone

and the re zoning of land for commercial purposes. However, it is also necessary to provide some planning guidance on the future development of the nodes. BCC will work with the communities to prepare basic urban design agreements on how they perceive the future spatial form and quality of the node and prepare basic drawings and guidelines on the desired building form and its relation to the street and public spaces, the public realm and mobility. Over time this will be done for each node.

Finally, additional areas for commercial expansion is also earmarked and these are contained in Map 34. The main larger scale additions to the stock of commercial land will be in Limbe with commercial growth into the existing forest area next to the Burn Dam. In both Blantyre and Limbe, CBD Expansion areas are designated to also accommodate increased commercial, office and mixed land uses.

For designated commercial and industrial land, land allocations/sales will be conditional upon it being developed within a set period of 2 years, failing which the land will automatically revert back to BCC for re-allocation.



Map 34: Current and future Commercial Land use.

## 7.4.3 STRATEGY 2.3: THE CITY WILL DEVELOP AN INTEGRATED TRANSPORTATION SYSTEM THAT CONNECTS THE KEY ECONOMIC NODES, PROMOTES ACCESS TO KEY ECONOMIC CENTRES AND FACILITATE REGIONAL, NATIONAL AND INTERNATIONAL CONNECTIVITY.

BCC recognises and promotes the three tiers of nodes and corridors as employment centres that are areas that can boast high job densities. This implies that the city must ensure the accessibility of these areas through an appropriate transportation system. BCC will therefore promote and pursue the development of an integrated transportation system that connects the key economic nodes and corridors and promotes access to key economic centres within the economic nodes and corridors.

The integrated transport system will be designed to support economic activity by connecting key economic nodes, including:

- Commercial and retail centres.
- Industrial zones.
- Informal trading centres.
- Education and research centres.
- Innovation and technology centres.
- Arts, cultural, tourism and hospitality centres.
- Institutional and government centres.

BCC will use the following methods to promote economic activity through an integrated transport system:

- Developing public transit nodes.
- Develop and upgrade bus and taxi ranks adjacent to informal markets.
- Allowing for the free flow of traffic through economic corridors, for example by providing dedicated taxi and bus stops adjacent to road lanes.
- Clearly marked bus and taxi stops, such as bus stop signs, bus stop shelters, etc.
- Improve transport user safety through pedestrian crossings, physical barriers near bus and taxi stops and lighting at night.
- Promoting easy access between bus stops and commercial, industrial and institutional centres. E.g. an access gate directly adjacent to bus and taxi stops.
- Providing parking in economic nodes.
- Providing non-motorised transport options, including pedestrian paths and cycling lanes.

The detail of this strategy is contained under strategic goal 5 since it is a mobility and infrastructure driven strategy.

## 7.4.4 STRATEGY 2.4: BCC WILL CREATE AN ENABLING ENVIRONMENT FOR INFORMAL TRADERS TO TRANSITION INTO FORMAL BUSINESSES, PROVIDING THEM WITH LEGAL STATUS, ACCESS TO RESOURCES, AND ESSENTIAL SUPPORT.

A significant portion of the city's economy is reliant on informal economic activity, while many residents rely on informal trade to survive. The city must:

- Develop a legal framework and regulations for informal trading.
- Develop informal trading markets.

The city recognises the importance of formalising informal trading activities to empower small businesses and enhance economic development. This policy aims to create an enabling environment for informal traders to transition into formal businesses, providing them with legal status, access to resources, and essential support. It outlines a comprehensive strategy to facilitate this transition while safeguarding their rights and interests.

#### 7.4.4.1 Develop Informal Trading Regulations

Informal trading markets provide local entrepreneurs with an opportunity to start a business at a significantly reduced cost than a formal business. It is therefore important that the city provide entrepreneurs with the opportunity to formalise their operations, which in turn will provide them with rights and protection.

BCC will provide informal traders with a set of regulations that will govern their activities. These informal trading regulations will include:

- Provide Access to Legal Status:
- ✓ Offer legal recognition to small businesses, including home-based and street vendors, granting them access to contracts, bank accounts, and legal protections.

#### Health and Safety Compliance:

 Provide guidance and support for informal traders to meet health and safety standards, ensuring the safety of their products for consumers.

The BCC by-laws already deals with health and safety compliance issues and these will be reviewed with the objective of making it easier to do business.

To further support informal traders, BCC will:

#### Simplify registration procedures:

 ✓ Streamline the registration and licensing process for small businesses, minimising bureaucracy and reducing costs to encourage informal traders to formalize their activities.

#### Training and capacity building:

 Provide training and capacity building opportunities to enhance the basic business skills of informal traders.

#### Facilitate mentorship and networking opportunities:

✓ Establish mentorship programs that pair experienced business owners with informal traders seeking to formalise, fostering knowledge transfer and networking opportunities.

#### Access to Technology:

✓ Promote the adoption of technology in business operations, including point-of-sale systems, digital marketing, and online sales platforms to help informal traders compete effectively in formal markets.

#### • Government support:

- ✓ Facilitate agreements with other spheres of government to support informal traders. These may include providing:
  - ~ Business registration
  - ~ Taxation support, e.g. assisting entrepreneurs to comply with their tax obligations
  - Access to Finance: Establish or support microfinance institutions and financial cooperatives tailored to the needs of small and informal businesses, providing them with capital and financial services.

The BUSP also provides for mixed land uses at the district and neighbourhood nodes to be supported, provided it is done responsibly and are complementary to existing uses. (See the Mixed Land Use Policy Framework).

## 7.4.5 STRATEGY 2.5: TO FOSTER THE DEVELOPMENT AND SUSTAINABLE MAINTENANCE OF INFORMAL TRADING MARKETS AS INTEGRAL COMPONENTS OF THE LOCAL ECONOMY.

#### 7.4.5.1 Develop Informal Trading Markets

BCC will foster the development and sustainable maintenance of informal trading markets at the designated nodes as integral components of the local economy. This policy focuses on creating a

supportive and enabling environment for informal traders, recognizing their essential role in economic growth.

Informal trading markets provide local entrepreneurs with an opportunity to start a business at a significantly reduced cost than a formal business. It is therefore important that informal markets provide a range of opportunities to entrepreneurs, from start-ups to more established informal businesses. This also ties in with the idea of spreading more smaller scale industrial activity through the neighbourhoods at the nodes.

BCC will continue to pursue the development and maintenance of informal markets that:

- Is adjacent to large transit nodes such as taxi and bus ranks.
- Have significant foot traffic within the area and is accessible from the street, transit nodes and formal commercial areas. This approach aims to maximize the visibility and accessibility of street vending zones, attracting a larger customer base and fostering economic activity.
- Have nearby amenities, such as public restrooms, seating areas, and parking facilities.
- Are properly serviced with water, electricity, sanitation and waste management.
- Have appropriate lighting to promote safety, particularly during early or late trading.
- Provide vending stalls, storage facilities and specialist facilities for specialist vendors, example butchers, fish sellers, etc.
- Stalls be designed to cater for various size vendors.
- Refrigerated storage are available to rent.

#### BCC will ensure that:

- The by laws for trading within the markets are evaluated and revised where necessary.
- The by laws are enforced.
- Security is provided.
- Fire safety protocols and emergency evacuation protocols are in place.

#### 7.4.5.2 Development Control in and around Markets.

If markets and the areas they are located in are not managed, it invariably leads to illegal annexing of all types of other informal traders and trading activities around the markets. Much more so than in the markets, these "annexes" cause health, safety, environmental and security challenges at the markets. Plate 13 shows comparisons of the Limbe and Blantyre Markets between 2002 and 2023. The Limbe Flea Market was added during this period but today the flea market is virtually empty while traders have set up their own stalls all around the market and encroached the entire area along Dalton Road

while Kenyatta Drive serves as the mini-bus rank that serves not only Limbe but also travellers to further afield.













Plate 13: Limbe Market

The current state of the Limbe market is a health, safety and traffic problem that needs to be attended to. One can hardly walk along Dalton and James Roads and the environment is really dirty and a health challenge. Nevertheless, the informal traders that set up in this area has organised themselves into "zones" where a number of them sell the same type of goods. This indicates a level of cooperation and BCC will address the improvement in the use and management of the area through a community-based management approach to find a lasting self-managed solution.

# 7.4.5.3 Re-Development of the James Street Link between the Limbe Market and the Limbe Station into a Pedestrian mall with facilities for informal hawkers and vendors

Plate 13 provides an indication of how the informal traders encroached around the Limbe market but it also indicates that the area is regarded as good for business for the traders. BCC recognises this and will commence with a process of re-developing the James Street link into a pedestrian type mall with facilities for informal traders, hawkers and vendors. The current state of the area is characterised by poor quality structures, eroded, wet and muddy surfaces, mountains of waste and general blight. Water and sanitation is a major issue and a solution for the traffic situation at the "bus terminal" and surrounds is also required



Plate 14: Conditions around the formal Limbe Market

In this process of re-development, BCC will emphasise the following key characteristics:

- Navigable Aisles with hardstanding surfaces and acceptable gradients or the use of stairs.
- Integration with public space and a pedestrian street with the emphasis on walkability.
- Availability of sanitation facilities and water.
- Protection of traders and vendors from the elements
- Affordable to trade from the area and to achieve this, creativity is required such as direct the use of the materials currently used for shelters to do it in a more ordered and designed way without necessarily raising costs.
- Safety of patrons are important and the designs should contribute to this.

Plate 7 shows the situation at Limbe Market in 2002 and the 2000 to 2015 Blantyre Urban Structure Plan anticipated the growth of the trading along James Street and already then included the upgrading of James Street into a pedestrian mall. This did not happen and the results are clear. It illustrates the imperative of dealing with this and similar spontaneous developments by providing some control, guidance and structure. The principle I valid for all the markets and all the nodes in the city.

#### 7.4.5.4 Hawking and Vending and Peddling

Blantyre currently a by-law to control and guide peddling in the city with a peddler defined as someone who goes from place to place selling goods by use of a mobile cart such as a tricycle, trolley or similar vehicle. It requires peddlers to be licenced and identifies areas where it is not allowable to peddle and prohibit peddling of uncooked or unprepared fresh meat, fish or poultry. It also clearly states that peddlers may not deposit any goods or foodstuffs on the ground, a stall, bench, counter, in a kiosk shelter or other structure for the purpose of sale or display.

The only reference in the by-laws to street vending is found in the market by-laws, which states that "No person shall establish a private market or engage in street vending within the Council unless he has first obtained the written permission from the Council."

The Primary Commercial Centres of the city are being choked through informal hawking and vending activities on the sidewalks and in the streets especially in the Limbe CBD. Hawking and vending have become important commercial activities in the city and BCC recognises their value as an important source of income for many residents. It is expected that more and more people will become involved in hawking and vending activities and that there will be a rise in demand for space for such activities. The importance of regulating and controlling these activities is, however, also acknowledged in so far as they may influence the general amenity of the area and the rights and interests of fellow residents. BCC will allow hawking and vending activities in the city as an important economic activity but it shall be controlled according to specific policies and conditions.

Uncontrolled hawking and vending carried on from sidewalks, streets and public open space and without suitable or adequate facilities impedes traffic flow, limits access to formal shops and the city in general, causes health risks and negatively influences the image of the city. These activities will be managed to mitigate the negative effects while retaining the advantages it bring to a large number of residents.

Hawking and vending activities will normally be allowed in the following designated areas provided that any person carrying on business as a vendor is in possession of a valid hawking license issued by the Assembly. Designated areas for hawking and vending are as follows:

- Along the south of Haile Selassie Road in Blantyre.
- Along Chilembwe Road between Livingstone and Victoria Avenues, Blantyre.
- Along Kaoshiung Road between Haile Selassie Road and the Blantyre Market.
- At the Wenela Bus Station area inclusive of the road toward the Blantyre Station.
- Along James Street in Limbe from Churchill Road past Market Square to the Limbe market.
- Along Dunduzu Road between Dalton and North Roads in Limbe.
- At the existing Market Square.
- At the existing and proposed urban district and local centres where specific provision for hawking and vending facilities are made in local plans.

The main hawking and vending areas in the Blantyre CBDs are shown in Map 35 below. According to this assessment, hawking and vending activities are mostly found along the south of Haile Selassie Road and along Kaoshiung Road between Haile Selassie Road and the Blantyre Market, with less hawking and vending found along Chilembwe Road. This is in line with the proposals of the previous structure plan. The main hawking and vending areas in Limbe CBD is shown Map 36. Here, street ending is more prolific and Market Street, Hill Street and James Street. These seem to be more and in different areas anticipated by the previous structure plan.

The general conditions of conduct for hawkers and vendors as annotated in the previous structure plan are still valid and can be retained. Accordingly, BCC adopts the general conditions of conduct as below.





Map 35: Key Street Vending Areas in Blantyre CBD



Map 36: Key Street Vending Areas in Limbe CBD

The general conditions of conduct for hawkers and vendors as annotated in the previous structure plan are still valid and can be retained. Accordingly, BCC adopts the following general conditions of conduct:

# Persons involved in hawking and vending activities in the city shall at no time carry on their activities such that:

- It may cause any obstruction to any service or service works of the Assembly or the service providers in the city;
- Creates a nuisance;
- Damages or defaces the surface of any public road or public place or any other property belonging to the Assembly; or
- Creates a traffic hazard.

# In the process of carrying on business, no person shall be allowed to, at any public road or public place,

- Stay overnight at the place of such business;
- Erect any structure (other than a device which operates in the same manner as, and is shaped like an umbrella) for the purpose of providing shelter;
- Attach any object by any means to any building, structure, pavement, tree, lamp pole, electricity pole, telephone booth, post box, traffic sign bench or any other street furniture in or on a public road or public place;
- Make a fire at a place or in circumstances where it could harm any other person or damage a building or vehicle or any street or street furniture;
- Cause an obstruction to the entrance of any building or public amenity;
- Obstruct access to a fire hydrant;
- Prevent pedestrians form using, or substantially obstructs them in their use of a sidewalk;
- Cause an obstruction on a roadway;
- Obstruct access to parking or loading bays or other facilities for vehicular traffic;
- Obstruct a road traffic sign or traffic markings; and
- Spill litter, fat oil or grease onto a public road or public place.

Areas designated for hawking and vending purposes shall:

- Be kept clean and in a sanitary condition to the satisfaction of city health regulations;
- Not be used for storage of refuse, scrap or waste material.

Hawking and Vending was one of the key issues for discussion at the Blantyre City Summit and from the breakaway meeting on hawking and vending it was clear that there is little common ground on how it should be treated and regulated. BCC acknowledges that hawking and vending are important economic activities and that no solution is possible without the active involvement of the hawkers and vendors.

BCC will therefore commence a process of engaging vendors and their representatives and establish a working group to prepare a comprehensive policy framework and agreement on hawking and vending and or street trading in the city. To have any chance of success, such a policy framework must be based on mutual respect and the willingness to recognise and truly and mutually understand each other's perspectives and a willingness to work towards a win-win situation. What is important spatially is to understand the basis on which hawkers and vendors define the best trading areas. Obviously, this would have much to do with where they feel they do the best business. However, this should be filtered through other considerations such as public convenience, impacts on parking and traffic, impacts on other business, etc. What is certain is that BCC or planners or authorities cannot take unilateral decisions about trading areas. If they don't like it they will simply go where they can do the best business.

The process therefore needs to also include other stakeholders that are impacted such as the formal businesses and traffic authorities. The overall objectives of the process are to revise and agree on the areas where hawking and vending is allowed in the city, the rules and regulations they

will abide by and the mechanisms of how the conduct of hawkers and vendors will be controlled. The outcomes will be a hawking and vending/street trading policy, agreed trading areas, a set of regulations to which the hawkers and vendors agree to abide by, an undertaking to self-regulate based on the understanding of the interests of all the stakeholders and understanding of the consequences should the regulations not be followed.

Finally, it is important that the regulations and by-laws related to all types of business including hawking and vending, trading at the markets, peddling, etc. be made known to the general public and BCC will plan and execute a public outreach campaign, suitable to reach the various stakeholder groups, to communicate the by-laws and regulations of the city to all residents. This is imperative for good governance and a requirement before BCC would be able to embark on a campaign to enforce all laws and by-laws strictly and without fear or favour.

## 7.5 STRATEGIC GOAL 3: STRATEGY TABLES TO CONTRIBUTE TO THE FINANCIAL SUSTAINABILITY OF THE CITY

Blantyre City's financial sustainability is under threat and this is likely to worsen over time if it remains business as usual. While an Urban Structure Plan is neither designed nor able to provide solutions to the financial challenges of a city, its provisions should not only support urban sustainability, but also the financial sustainability of the city.

The spatial form of a city either contributes to or detract from its financial sustainability. A sprawling city generally requires more infrastructure (roads, pipelines, reservoirs, waste removal vehicles and longer travel distances) to serve the same population. It influences the cost of living by for example requiring longer distance travelling to reach places of work, business or government services (which is more expensive) or higher cost of services such as water and electricity per unit. A compact and denser city form has the opposite effect and cost less for the city administration to develop and maintain while it also cost less to individuals and individual households to live and work there.

Malawi Vision 2063, under the Urbanisation Pillar, recognises that ... "resources have not been adequate to meet the growing infrastructure and other related needs of cities and towns". It identifies improved domestic revenue mobilisation and the enhancement of local revenue mobilization capacities as the key actions to be able to cater for almost all local government development projects. However, it does not recognise the role of a more efficient city form on cost and revenue generation in the urban areas.

The BUSP augments the Vision 2063 strategies and highlights spatial strategies that will contribute to and augment measures to improve revenue recovery and mobilise additional revenue. It introduces land use arrangements that would, over the medium to long term, make the city form more effective, efficient and sustainable. These strategies are elaborated below and are interwoven and interdependent with the other strategies in the plan.

What this means/Requires Desired Land Use Sub Strategy **Policy guidelines Policy Statement** Related Outcomes **Policy/Plan** Land use efficiency To apply planning Council acknowledges **Refer to P 19 – P26** BCC will strive to: will gradually improve tools such the need to use all as as the provisions of the ~ use all spatial levers that may contribute to the densification. possible strategies and pan are implemented sustainability of the city. intensification and measures that may and this contributes to infill development to present itself to improved efficiency make more effective enhance the financial and reduced unit cost. use of its land and sustainability of the services and increase city the rates and taxes yield per unit of land. More vibrant and To support the re-Council Acknowledges ~ BCC will strive to: **Refer to P19 - 23** intense CBDs where development and rethat the more business is done. ~ Facilitate the revitalisation of the Blantyre and vitalisation of the redevelopment/ Limbe CBDs through considering the age and Blantyre and Limbe revitalisation of the conditions of buildings and vacant land and then CBDs to increase CBDs will lead to more determine increased development rights. value and generate intense land use and more income higher value buildings ~ Use the CBDs to contribute to the compact city and this would increase form, thereby bringing people closer to the main revenue for the same areas of employment, utilising infrastructure to land. its maximum and reducing the city's carbon footprint through reducing the need to travel. More ordered and **Refer to P 27 – P33** То utilise the ~ BCC will strive to: intense development at proposed local and the city's nodes. ~ Identify a logical system of nodes and use zoning district centres to and bulk provisions (policy zones) to intensify also increase land use in and around these nodes. efficiency in those nodes and increase the revenue base.

Table 36: Strategy 3.1: BCC will use spatial planning tools and provisions to, over the longer-term, increase council income from the same development footprint while serving more people/units with the same infrastructure at a reduced unit cost.

#### Table 37: Strategy 3.2: Prevent unplanned settlement

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
To design and implement measures to lessen and eventually stop unplanned settlement from establishing in Blantyre.	Council recognises that Unplanned settlement that occur without municipal approval is more difficult to include in the formal rating system of the city. It should therefore be avoided at all cost.		Refer to P 1 – P18	By 2026, no new unplanned settlement will take place within the urban edge of Blantyre.	

## Table 38: Strategy 3.3: Improve Stakeholder Communication

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Outcomes	Land Use	Related Policy/Plan
To find and employ the most effective ways to communicate with the city's residents with respect to rates and taxes and service delivery matters	Council recognises that at least some resistance towards the payment of rates and taxes can be ascribed to a lack of knowledge of the purpose and necessity of every resident contributing to the cost of operating and maintaining the city. Council is committed to improve its	<ul> <li>BCC will strive to:</li> <li>use every means and media platform available to it to convey as much information about the city and its operations to residents to foster a better understanding of the legal requirement to pay rates and taxes, how it is used to the benefit of residents and what may result from failure of residents to pay their dues.</li> </ul>	<b>Refer to P45 above.</b> It is acknowledged that BCC, through its "Taking the City Back to Its People" campaign has already made progress in this regard and should carefully and with clear targets expand on this.			

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communication with		
residents.		

 Table 39: Strategy 3.4: Actively improve service delivery to the rate payers of the city

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Outcomes	Land U	Jse	Related Policy/Plan
To everything in its power to improve service delivery, especially solid waste management, sanitation and road maintenance and to communicate to residents when this is not possible and why.	Council acknowledges that, judging from social media posts and other comments by residents, it seems that the payment of rates and taxes are often withheld because of perceived poor service delivery by BCC. BCC will therefore do its utmost to improve it service delivery, especially, solid waste management, sanitation and road maintenance.	<ul> <li>BCC will strive to:</li> <li>Demonstrate its commitment to improved service delivery</li> <li>Explain to residents when specific service delivery challenges occur</li> <li>Make the city's budget transparent so that residents can also evaluate the extent of resources available to council</li> </ul>	P46 BCC will ensure that there are no service delivery related reasons residents can use to argue in favour of the non-payment of rates and taxes. These two are interdependent – services can only be delivered if full and regular payment for such services are recovered. At the same time, BCC must deliver a quality service. If there is discrepancy between what residents pay and the cost of the services then the rates and taxes must be revised accordingly. In addition, the institutional culture of BCC must be dominated by or based on a very strong desire by the organisation and all its staff towards quality service delivery.				

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Outcomes	Land	Use	Related Policy/Plan
To consider the introduction of other sources of revenue as contemplated under the urbanisation pillar of the Malawi Vision 2063	Council acknowledges the need to enhance local revenue mobilization capacities to be able to cater for almost all local government development projects. Council further recognises that government. reforms intended to be pursued in this regard include the introduction of new municipal financing mechanisms; broadening the local government revenue base; and increasing efficiency in the collection of local government revenue.	<ul> <li>BCC will strive to:</li> <li>work with its development partners and government to broaden its revenue base and strive to get revenue streams currently accruing to other role players in the city to accrue to the city's accounts.</li> </ul>	<ul> <li>P47</li> <li>BCC will study and investigate the municipal revenue situation for Blantyre and explore and develop alternative sources of revenue to fund the city's development agenda.</li> <li>P48</li> <li>BCC will engage with government to cede specific revenue items as per the local government act such as vehicle licensing, toll gate fees and contributions from the roads authority from mass distance charges accruing to the use of roads in Blantyre City.</li> </ul>				

#### Table 40: Strategy 3.5: Seek alternative revenue sources
Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Outcomes	Land	Use	Related Policy/Plan
To seek fair and full contribution from government to cover the cost of functions that were decentralised to BCC	Council acknowledges the rationale of decentralisation of certain government functions to Blantyre City. Without requisite financial support, such decentralisation increases the financial burden of Council beyond its ability to cope and negatively influences its ability to fulfil its core functions.	<ul> <li>BCC will strive to:</li> <li>Negotiate with government to come to a fair agreement with respect to "fiscal decentralisation" whereby government carries the cost of providing these services and timeously transfer the requisite funds to the city.</li> <li>Account for the government transfers and the actual cost to provide decentralised services in order to have accounting evidence on which such fiscal decentralisation can be based.</li> </ul>	<b>P49</b> BCC will reconcile the cost of the provision of the decentralised functions over the past 5 years versus the government transfers received for those functions and seek to negotiate transfers to be in line with the total cost of providing those functions.				

#### Table 41: Strategy 3.6: Seeking Fiscal Decentralisation

## 7.6 STRATEGIC GOAL 3: SPATIAL PROVISIONS TO CONTRIBUTE TO THE FINANCIAL SUSTAINABILITY OF THE CITY

The financial position of BCC is challenging. The main reasons for this are a small rate base, the fact that water and electricity is provided by utilities and therefore not a source of revenue for BCC (like it is for thousands of other cities in the world), the rendering of some services at a net cost to Council, insufficient government transfers and a high default rate on rates and taxes.

The 2021 Quinquenial Valuation Roll updated the 2005 valuation roll and included all properties in the city. In the process, the rate base has been increased and the valuations made more realistic. However, there is resistance against payment of rates and taxes with residents arguing that service delivery must come first and then payment. However, the payment of city rates and taxes are Firstly you need to improve the infrastructure, in most residential areas the roads are pathetic and other services like collection of waste from residential areas, then you can hike the fees.

A social media response from a resident with the announcement of the QVR compilation by BCC

not legally linked to the provision of services. Nevertheless, it is only logical that BCC will be judged by residents on the perceived quality of the service it delivers.

What is important though is that the rates and taxes must be able to cover BCCs expenses for the delivery of the services it is responsible for. If it is too low, BCC will not be able to cover service provision and maintenance and this has led to "asset stripping<sup>5</sup>" to make the accounts balance somehow.

Table 42 provides an indication of the annual budget in US\$ for six Southern African cities.

City	2022Annual Budget (US\$)	Annual budget per person (US\$)
Blantyre	5 230 146	6.03
Windhoek	239,480,000	482.9
Nairobi	301 835 793	58.9
Lusaka	28 575 806	9.27
Cape Town	8 370 122 031	806.1
Lilongwe	8 614 569	7.04

#### Table 42: Budget Comparisons

A cursory comparison of the Blantyre City Budget to that of the other cities in the region reveals just how little money is available to the Blantyre City Council if compared to cities such as Cape Town in South

<sup>&</sup>lt;sup>5</sup> Asset stripping occurs when an asset is not maintained to standard and the money that was supposed to be used for the maintenance of the asset is used for another budget vote. This results in the value of the asset being stripped and over time it can get to a point where the asset is worthless and has to be rebuilt completely. Normally there is no funds available for that and residents have to make do without it. An example is the condition of residential access roads and the city's wastewater treatment plants (albeit the responsibility of BWB)

Africa, Windhoek in Namibia and even Nairobi in Kenia. Where the City of Cape Town has US\$ 806 per person/annum and Windhoek has US\$ 482 per person per annum available, Blantyre (US\$6.03pp/a) and Lilongwe (US\$7.04 pp/a) is far behind and its ability to deliver good and comprehensive services in the city is severely constrained. To put this into perspective, a 50kg pocket of cement in Malawi cost about US\$ 8.55 (MK 15 000) while it costs US\$ 5.80 in South Africa and US\$ 5.44 in Namibia.

To put this into further perspective, Malawi and Zambia are classified as low income countries by the World Bank while South Africa and Namibia are classified as upper middle income countries. This revenue shortage gives rise to many problems including an inability to attract and retain qualified staff, shortages of crucial equipment and vehicles to carry out necessary tasks and a lack of funds to maintain existing infrastructure and implement new development projects. BCC acknowledges that it is imperative that its income be maximised, be managed prudently and be used judiciously to the maximum benefit of the residents of the city. While the BUSP is not a financial plan it is designed to contribute to the financial sustainability of the city through pursuing a spatial form and spatial arrangements that contributes to financial sustainability. The spatial strategies are detailed in the next sections.

## 7.6.1 STRATEGY 3.1: BCC WILL USE SPATIAL PLANNING TOOLS AND PROVISIONS TO, OVER THE LONGER TERM, INCREASE COUNCIL INCOME FROM THE SAME DEVELOPMENT FOOTPRINT WHILE SERVING MORE PEOPLE/UNITS WITH THE SAME INFRASTRUCTURE AT A REDUCED UNIT COST.

The maximisation of the "rates and taxes crop yield" simply refers to the ability to get as much revenue as possible from the spatial form of an urban area. This is achieved through higher intensity use, which enables a city council to collect taxes from more units and to collect more service charges (in quantity and not amount) from the same infrastructure extent. Property rates is by far the most important contributor to the revenue of the city.

The plan provisions that contributes to this and therefore to the financial sustainability of Blantyre is densification across the city where it is viable, developments at a much higher intensity and density than was the case up to now and through the increase in development rights and therefore development intensity in the CBD and it fringes. This strategy is long terms and designed to reduce the unit cost of maintaining the city and its infrastructure, yet increase the income form the same hectarage of land.

In addition, the introduction of the urban edge and channelling development into the existing footprint of the city assist to keep infrastructure expansion (and the resultant cost of construction and maintenance) in check. The designation of the district and neighbourhood nodes further contributes to intensification of land use and therefore to the financial sustainability of the city.

#### 7.6.2 STRATEGY 3.2: PREVENT UNPLANNED SETTLEMENT

The high percentage of households residing in unplanned settlement also contributes to the financial woes of the city. It is therefore essential to halt further unplanned settlement and channel development into planned settlements which increases the value of properties with its resultant positive impact on property rates. The methodology on how to deal with this is elaborated under strategy 1.

#### 7.6.3 STRATEGY 3.3: IMPROVE STAKEHOLDER COMMUNICATION

An internet search revels that there is very little budget information available for Blantyre City and council recognises that resistance towards the payment of rates and taxes could partly be attributed to a shortage of financial information being available to residents. This has clearly been realised by BCC and various efforts have been made to improve communication with its constituents.

Nevertheless, it is extremely important for BCC to communicate this type of information as well as detail on its budgets and how its revenue is spent to its constituents. This should provide perspective, curb expectations and also prepare the ground for necessary increases in property rates to enable BCC to provide better services.

There are many examples of how City Councils can provide feedback to its constituents such as a quarterly report on revenue and expenditure and how the revenue was spend to date. It should also highlight what council can and cannot do with the resources to its disposal. Such communication clears the air and fosters an understanding from citizens on what could realistically be expected from their council. It is also likely to lead to a greater willingness to accept property rate increases in the future.

#### 7.6.4 Strategy 3.4: Actively improve service delivery to the rate payers of the city

Closely related to communication, residents judge service delivery on what they see and experience themselves. Services that are not visible to them is negated and they only see a part of the picture at any given time. Therefore, it is firstly important to define the services residents could expect from council. This has already been commenced with in the Blantyre Service Charter. The service charter is a social pact between Blantyre City Council and City residents to improve accountability and efficiency of service delivery. For it to work, service delivery must actually meet the promised levels. If it does not, the pact is broken and people become sceptical. Again it is important to communicate honestly and not overpromise and under deliver. For example, the Charter states, under engineering services, that " potholes and other related damages are repaired within seven days of appearing", yet

it is glaringly obvious that this is not the case and that residential access roads are in a very poor condition. Similarly, it undertakes that "Waste water is treated according to national standards", but this is simply not true and has not been true for a while.

BCC will therefore disseminate accurate information to residents and also communicate and explain in cases where the promises of the service charter fail to materialise. BCC believes that such openness with its residents will improve relations, forge better mutual understanding of challenges and create an environment where logic prevails with respect to what BCC can deliver within its means.

#### 7.6.5 STRATEGY 3.5: SEEK ALTERNATIVE REVENUE SOURCES

Under the Urbanisation Pillar of Malawi Vision 2063, it is envisioned that local revenue mobilization capacities will be enhanced to be able to cater for almost all local government development projects. It hints at a reduction in reliance on central government transfers and lists the reforms as the introduction of new municipal financing mechanisms, broadening the revenue base, and increasing efficiency in collection of revenue.

BCC will concentrate on broadening the revenue base and increase revenue collection efficiency – every citizen needs to pay his/her dues. In addition, BCC will also engage government to cede specific revenue items as per the local government act, such as vehicle licensing, toll gate fees, proportional mass distance charges on heavy vehicles and other locally generated revenue that goes to central government.

#### 7.6.6 : STRATEGY 3.6: SEEKING FISCAL DECENTRALISATION

A number of previous central government functions have been transferred or decentralised from Central to Local Government. While this was planned to occur with the concurrent "decentralisation" of funds to cover the cost of these services, these decentralised services are now only partly covered by government transfers. However, there does not seem to be a full understanding of the cost of the services versus the government transfer to cover it.

BCC will reconcile the cost of the provision of the decentralised services or functions over the past five years and compare it to the transfers received to cover such functions. Should there be discrepancy, BCC will seek to negotiate transfers to be in line with the actual cost of providing those functions.

BCC recognises that even the resources of central government is limited, but also that as a decentralised service is provided, it should have the ability to cover such costs fair and evenly across all local authorities in the country or it should be able to recover part of the costs from the users of those services.

# 7.7 STRATEGIC GOAL 4: STRATEGY TABLES TO ENHANCE THE SUSTAINABILITY AND AFFORDABILITY OF PHYSICAL INFRASTRUCTURE

Sustainable infrastructure refers to the need to design and develop urban infrastructure that strikes a good balance between durability/climate proofing and affordability with due consideration of the levels and cost of maintenance that will be required over its economic life.

Malawi Vision 2063, under its Urbanisation Pillar recognises that infrastructure development and services such as housing, transport, energy and communications has not kept pace with urban population growth. In Blantyre City, the same observation is valid and the 2018 Population and Housing Census data indicates that 69% of households in Blantyre live in unplanned areas where 53.22% of housing structures are permanent. While more than 63% of households in Blantyre indicated that they use electricity for lighting, 86.9% of households in the unplanned areas and 67.36% in the planned areas use charcoal and not electricity for cooking.

While 49.6% of households in the unplanned areas get water form communal stand pipes, 95.97% of households in the unplanned areas and 97.36% in the planned areas have access to safe water. With respect to sanitation, some 89.6% of households in the unplanned areas and 65% in the planned areas use a pit latrine as toilet facility and only 33.7% of households in the planned areas and 7.8% in the unplanned areas have access to a flush toilet.

Much of the existing utility infrastructure in the city have reached the end of its economic life and needs to be replaced or re-furbished. Blantyre Water Board's unaccounted for water is as high as 54% of water that gets pumped to the city while the waste water treatment plants are really old and needs complete refurbishment to again reach the original design capacities.

The compact city strategy implies more intensive use of land within the existing footprint of the city. This means that infrastructure capacities must be able to accommodate this additional requirement, and that it is more sustainable to upgrade the existing services (that reached the end of it design life and will need to be upgraded in any case) than providing new infrastructure to a sprawling urban area.

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
Define the areas for revitalisation/ re- development, densification and intensification and calculate the potential uptake that may be expected to occur.	With the objective of building a compact city partly being achieved through a densification and intensification strategy, Council is committed to promote and favourably consider development applications (unless there are fatal flaws or other planning considerations that make it undesirable) that would achieve these objectives. Council recognises that this policy will impact the capacity of existing infrastructure and that capacities may need to be increased to accommodate more dense and intense settlement.	<ul> <li>BCC will strive to:</li> <li>Ensure that infrastructure and utility services are available to enable the redevelopment and revitalisation of the CBDs and in the areas where it is most prudent to implement such a policy</li> <li>The creation of a ring fenced fund from development contributions to be exclusively used for the upgrading of infrastructure necessitated by the densification and intensification policies.</li> </ul>	<ul> <li>P50</li> <li>Based on the expected uptake, devise an infrastructure development plan to deal with the CBDs, the CBD Fringes, the residential areas and the nodes.</li> <li>P51</li> <li>BCC will formulate a development contribution policy for land use intensification. Based on the required infrastructure interventions, a development contribution that landowners will be required to pay for the increased services requirements will be calculated.</li> <li>P52</li> <li>BCC will create a ring fenced infrastructure development fund that is solely earmarked for the upgrading of infrastructure as and when it is required.</li> <li>P53</li> <li>BCC will devise a public sanitation policy and strategy to ensure access to sanitation at those places where large numbers of people congregate to do business.</li> </ul>	By the beginning of 2025, BCC has elaborated its densification policy and has communicated its objectives and the opportunities it represents to land owners in the policy areas. By the end of 2024, BCC has, as per the provisions of section 46 (2) created a special fund for the betterment of utility infrastructure and roads necessitated by densification and intensification. By the end of 2024, BCC has adopted a development contribution policy to be charged when the intensity of development on any plot within the policy area is applied for and approved by BCC.	Densification and Intensification Policy Ring fenced betterment fund Development Contribution Policy
Integrate Urban Planning and infrastructure provision	Council recognises that layout planning, water and sanitation provision and electricity provision	<ul> <li>BCC will strive to:</li> <li>Plan ahead to have enough planned plots to satisfy the demand and thereby negating the need for unplanned settlement</li> </ul>	<b>P54</b> BCC prioritises planned development and insists that all settlement in the city shall be planned properly, even if no services would	By the end of 2025 BCC, BWB and ESCOM has agreed on different levels of utility services to be made available for different levels of affordability within	

# Table 43: Strategy 4.1: While renewing infrastructure, resize the new infrastructure in such a way that it could accommodate revitalisation of the CBDs and general densification and intensification efforts.

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	are the responsibility of different institutions and that this has in the past led to differences in strategic direction. Council is committed to work with its development partners to align objectives and work together to integrate urban planning and infrastructure provision to supply services in an orderly fashion in a planned urban environment.	<ul> <li>Consider affordability levels and provide a range of plots with different service levels to satisfy the entire demand spectrum.</li> <li>Re-introduce site and services projects (as an alternative to unplanned development) which enables settlement at low cost and low service levels but within a planned environment that can be upgraded into sustainable neighbourhoods over time.</li> </ul>	be available immediately prior to settlement taking place. <b>P55</b> Whenever any planning for new development is considered or planning applications are considered for development that have an infrastructure component or impact, BCC engineering services shall consider such application and provide all infrastructure requirements that the applicant must provide or comply with for that particular level of service. BCC will include this requirement into all planning and development applications submitted to BCC in future.	formally planned, approved and surveyed town planning layouts. By the end of 2025, no household will need to build a house or a shelter in an unplanned area but will be able to build it on a formally planned plot and have the benefit of the ability to offer it as security, obtain a mortgage bond and benefit from the capital growth of the asset.	
BCC will prepare maintenance schedules for its infrastructure and budget the necessary funding to accomplish it.	Council acknowledges that the inability to maintain its infrastructure has dire long term consequences. This strips the city's assets from its value, influences its balance sheet and is notoriously difficult and expensive to rebuild once it has lost serviceability.	<ul> <li>BCC will strive to:</li> <li>Develop and infrastructure maintenance plan and schedule to continuously attend to its ageing infrastructure before it becomes completely unserviceable and in need of total replacement</li> <li>Budget for scheduled maintenance on an annual basis and ensure that it is done on the basis of good engineering contracts with good contract administration and accountability</li> </ul>	P56 Based on the findings of the status quo studies, BCC will plan and fund infrastructure maintenance to prevent total collapse and severe financial loss.	By 2025, BCC will have prepared an infrastructure maintenance plan for the first five years of the structure plan and work with BWB and ESCOM to do the same.	

Table 44: Strategy 4.2: To ensure that new development is progressively located in areas where it is most opportune to provide infrastructure services. Low hanging fruits should be prioritised for development.

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
Based on the map of developable land within the city boundary, classify and zone those areas on the basis of ease and least cost of service provision.	Council acknowledges the need to consider the proximity to and ease of servicing new development and it should be sequenced to enable efficient service provision.	<ul> <li>BCC will strive to:</li> <li>Identify the low hanging fruits – i.e. the areas where redevelopment/densification/intensification can occur without the need to invest large amounts in infrastructure upgrading</li> <li>Sequence future development logically</li> </ul>	<ul> <li>P57</li> <li>BCC will encourage a logical development sequence. Should developers wish to develop outside of such sequence, then the cost of services to the required standards shall be borne by the developer.</li> <li>P58</li> <li>Establish an integrated land management system for sustainable urban infrastructure and share with the development partners to reach agreement and unity of purpose.</li> </ul>	From the onset, land that is closest to areas with existing services are developed first to avoid long distances of bulk infrastructure pipelines and transmission lines to distant areas	Development sequencing map

Table 45: Strategy 4.3: To ensure that any new development by private individuals or the private sector comply with the services standards of the city to ensure that, over time, service delivery standards can be improved to desirable levels.

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
To develop and document a set of required standards for all utility services, for all developers including the BCC and government to comply with.	Council acknowledges the need to ensure that the quality of utility services designs and installations must be of an acceptable level and failure to ensure acceptable standards places an unnecessary medium to long term burden on BCC	BCC will strive to: ~ promote sustainable and resilient design principles and standards in infrastructure design	<b>P59</b> To promote equitable Infrastructure services delivery, BCC will prepare an Infrastructure standards policy which will specify minimum standards and design guidelines for any utility services installation.	By 2025, BCC has developed infrastructure design standards that specifies acceptable material, installation and procedural standards that strikes a balance between quality, performance and affordability.	Infrastructure Design Guidelines and Standards

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	to maintain inferior quality infrastructure				
To prevent Non- compliant designs from being executed without the due diligence by the technical departments to ensure that required standards and quality are met.	Council is committed to find the optimal balance between quality and affordability, especially in the design and development of low income areas.	BCC will strive to: ~ ensure that registered professional engineers are used for infrastructure designs and that they be held professionally accountable for their work.	<ul> <li>P60</li> <li>BCC will require that all utility infrastructure for any development be designed by a registered professional engineer and that all plans and designs must be approved by BCC prior to the commencement of construction.</li> <li>P61</li> <li>BCC will strengthen development control and enforcement mechanisms to ensure that the standards and requirements are met.</li> </ul>		
It is clearly unaffordable to extend water borne sanitation systems to the entire city. Water borne sanitation is also unlikely to be affordable for new planned development, even if it is for affordable housing. However, the current extent of the use of pit latrines in high density areas is a health and environmental threat and must be addressed.	Council is committed to ensure that households in Blantyre have access to safe sanitation.	BCC will strive to: ~ explore alternative means of sanitation and at least ensure that all ne pit latrines are ventilated and improved and has an impermeable lining.	P62 BCC will formulate a policy to regulate the use of pit latrines in all future development in the city.	By 2030, 80% of the city's residents will have access to safe sanitation	

Table 46: Strategy 4.4: To coordinate with other service providers to ensure unity of purpose and shared strategic direction for the fu	ture development
of infrastructure in the city.	

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
To seek cooperation agreements with ESCOM and Blantyre Water Board to coordinate the prioritisation and provision of utility services within the city boundary as well as immediately outside the boundary and will seek to include these entities as members of the joint committee to be formed with the three District Councils.	Council acknowledges the need to work together with BWB and ESCOM to achieve a planned city and move away from unplanned settlement being the main method or pattern of settlement in Blantyre.	<ul> <li>BCC will strive to:</li> <li>obtain common agreement that the provision of water and electricity in unplanned settlements only serve to encourage such settlement and get commitment from partners to not serve areas without agreement from BCC.</li> <li>negotiate a moratorium with BWB and ESCOM on the provision of services in unplanned settlements unless prior input of BCC was obtained and the plans approved.</li> </ul>	<ul> <li>P63</li> <li>Implement an institutional mechanism of control and agree that utilities will not be provided unless such a development has received planning approval from the BCC and that utility designs have been submitted and approved.</li> <li>P64</li> <li>BCC will do its utmost to reach common ground with BWB and ESCOM through ensuring that these two bodies are in agreement with the provisions of this plan and prepared to incorporate the principles into their own operations.</li> <li>P64</li> <li>ESCOM and BWB should provide their investment plans to BCC to be checked with the provisions of the Blantyre Urban Structure Plan prior to implementation. ( in practice, current coordination structures/attempts seem not the be successful - BCC CEO member of BWB's Board and staff of BWB and ESCOM being members of the planning committee.)</li> </ul>	Unity of purpose where the three institutions are in agreement and grow the city jointly in such a way that it improves the sustainability of all three partners.	
To promote the provision of sufficient bulk energy and bulk water supply to meet the increasing demands in the city	Council acknowledges the threat that the City's population may grow beyond the ability of the utilities and the country to supply water and electricity	BCC will strive to: ~ keep estimates of the growth in the city's demand for electricity and water and communicate this to the utility companies for planning and capacity development purposes.	P65 ESCOM and BWB have strategic plans to ensure the availability of bulk water and electrical supply to Blantyre and will share these with BCC to align its own planning therewith.		

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Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
Together with the Water and Sanitation Project funded by the World Bank, BCC will devise a city wide solid waste management system that actually works and is able to serve all parts of the city.	Council acknowledges the unsatisfactory situation pertaining to the management of solid waste in the city and are committed to, starting with the new landfill to be developed under the water and sanitation project, develop a strategy to improve this situation drastically.	<ul> <li>BCC will strive to:</li> <li>Decentralize waste disposal sites and/or establish strategic waste transfer stations across the city to provide easy access to such facilities and thereby negating the need for indiscriminate dumping</li> <li>Encourage waste separation at source by distributing bins in homes paying city rates and at disposal sites</li> </ul>	<ul> <li>P66</li> <li>BCC will prepare a comprehensive and integrated waste management strategy for the city and invest the necessary resources to operationalise the strategy</li> <li>P67</li> <li>BCC will intensify its campaign to sensitise residents to the effects of littering and indiscriminate dumping of waste in terms of its impact on the environment and the image of the city</li> <li>P68</li> <li>Establish incentives and disincentives for minimizing waste generation at source and encouraging reuse and recycling. Examples, include tax waivers for manufacturing companies/industries that minimize waste generation or promote recycling</li> </ul>	By 2027, solid waste is collected regularly in all parts of the city and sorted and separated at waste transfer stations for recycling and/or composting and only non-recyclable waste is transported to landfill.	

#### Table 47: Strategy 4.5: BCC will design and implement an Integrated Solid Waste Management System for the city

# 7.8 STRATEGIC GOAL 4: SPATIAL PROVISIONS TO ENHANCE THE SUSTAINABILITY AND AFFORDABILITY OF PHYSICAL INFRASTRUCTURE

## 7.8.1 STRATEGY 4.1: WHILE RENEWING INFRASTRUCTURE, RESIZE THE NEW INFRASTRUCTURE IN SUCH A WAY THAT IT COULD ACCOMMODATE REVITALISATION OF THE CBDS AND GENERAL DENSIFICATION AND INTENSIFICATION EFFORTS.

# 7.8.1.1 Estimating the additional services requirement as a result of Densification and Intensification

For the period 2015 to 2023, the Blantyre Planning Committee approved 1963 applications in total. Of these, 1818 was for residential, commercial, industrial, and other subdivision/ alteration applications. This translates to an average of 218 applications per year. Having due regard for the impact of the provisions of the structure plan in terms of densification and intensification intentions, it is estimated that the applications is likely to increase by at least 50% over the first five years of the plan if the increased possibilities and development rights are communicated effectively to land owners and lessees in the city. This would mean that approximately 1635 additional connections for water, electricity and sewer will be required in the next five years. However, this may spike if a few large buildings are developed in the CBDs.

#### 7.8.1.2 Integrate urban planning and infrastructure provision

This sub strategy deals with ensuring that the plan proposals utilise existing infrastructure to its maximum potential on the basis that it is more efficient and sustainable to serve as many households as possible with the existing infrastructure network. Therefore, on the basis of the planning proposals, Blantyre will seek the preparation of a water master plan, an electricity master plan and a sanitation master plan to respond to the BUSP. While the BUSP makes basic recommendations, comprehensive master plans are required to ensure that the city can be serviced over the long term. BCC acknowledge that the provision of these services are the responsibility of Blantyre Water Board and ESCOM but that it is imperative to have the assurance that both these parastatals are not working in isolation and that all parties aspire to achieve the same goal.

To support this strategy, BCC undertakes to follow its township development programme to provide a solid base to the other partners to plan their own rollouts. It will also detail the level of service to be provided to enable improved estimation and planning. Also refer to the provisions of section 7.2.1.9.

#### 7.8.1.3 Preparation of maintenance schedules

The master plans for water, electricity and sanitation will not only concentrate on the development of new services but also contains an assessment of the physical condition of existing infrastructure, the replacement of obsolete infrastructure and the need for maintenance together with a maintenance plan and budget.

## 7.8.2 STRATEGY 4.2: TO ENSURE THAT NEW DEVELOPMENT IS PROGRESSIVELY LOCATED IN AREAS WHERE IT IS MOST OPPORTUNE TO PROVIDE INFRASTRUCTURE SERVICES. LOW HANGING FRUITS SHOULD BE PRIORITISED FOR DEVELOPMENT.

#### 7.8.2.1 Development Sequencing

The sequencing of future development is important because it enables one to, as a first priority, develop areas where bulk infrastructure is already available, and secondly where bulk infrastructure is in close proximity. To give effect to this strategy, the areas for high, medium and low density township establishment were identified and then sequenced for the first five years to reach the desired 35 000 housing opportunities. Map 37 provides the combined township development policy areas for low, medium and high density development.

Year	High Density areas		Medium Density Areas		Low Density Areas	
	Area	Units	Area	Units	Area	Units
2025	Preparation a	nd training			'	'
2026	HD 1	1190	MD1	1000		
	HD 3	1190				
2027	HD2	1379	MD2	525		
	HD4	2135				
2028	HD5	6790				
	HD6	3255				
2029	HD7	5740	MD4	2025		
2030	HD8	2968				
	HD9	1347	MD4	2000	LD2	1925
	HD10	2205				
TOTAL		28199		5550		1925

Table 48: Development Sequencing for 2025 - 2030

These areas would be able to accommodate some 35 674 housing opportunities over a period of five year allowing the remainder of 2024 and 2025 to prepare all the systems to implement the programme.



Map 37: Combined Future Township Development Policy Areas

## 7.8.3 STRATEGY 4.3: TO ENSURE THAT ANY NEW DEVELOPMENT BY PRIVATE INDIVIDUALS OR THE PRIVATE SECTOR COMPLY WITH THE SERVICES STANDARDS OF THE CITY TO ENSURE THAT, OVER TIME, SERVICE DELIVERY STANDARDS CAN BE IMPROVED TO DESIRABLE LEVELS.

#### 7.8.3.1 Development of Infrastructure Guidelines and Standards

Infrastructure standards refer to the standards that a local government requires any type of development to adhere to. They are generally formulated to ensure that all new developments, including those embarked upon by the local government itself, are designed and constructed to a certain minimum level of quality in terms of materials and method. They are there to protect both the local government and the residents from poor quality services and resultant high maintenance cost or service interruptions over the long term.

The Land Use Planning and Development Management Guidelines and Standards of Malawi provides a fairly comprehensive general guide to development planning and management and contains numerous standards. Section 5 provides guidelines on sanitation, transport and traffic management and frequent reference is made to standards set by the Malawi Bureau of Standards. While these standards are fairly comprehensive, it does not go to a level of detail where an engineer at BCC could take the guidelines and standards and evaluate a design of a roadway, a stormwater structure, a bulk sewer line and secondary lines, a water reservoir, or a bulk water pipeline. It does set "performance standards' but lacks detail on for example the material and class of pipe to be used for sewer lines and water lines, the design requirements for roads of various classes (other than the width of road reserves, road classification, intersection distances, etc.).

BCC acknowledges that much of its utility infrastructure is old and have reached or exceeded its economic life. While these will gradually need to be renewed and networks extended to meet the increasing demand, BCC needs guidance to be able to manage this process and ensure that all new construction or refurbishment work is well designed, makes use of acceptable and durable materials and are installed in accordance with a set of specifications that is acceptable to the city. BCC further acknowledge the importance of engineering supervision and contract management during the construction process.

To assist the city and its staff to improve its ability to ensure that all development in the city complies with a set of minimum technical specifications and standards, BCC will formulate, in line with the Land Use Planning and Management Guidelines and Standards, a set of more detailed standards to be used by the Directorate of Engineering Services to ensure that all new development

meet the required standards to limit the City's liability for maintenance and repairs in the medium to long term.

BCC will require that all utility infrastructure designs be signed off by a registered professional engineer and is approved by the Directorate of Engineering services prior to the commencement of construction.

#### 7.8.3.2 Investigate Alternative means of Sanitation

BCC recognises that the provision of safe sanitation in the city is a cause for concern. With 86% of households in the unplanned areas and 65% in the planned areas making use of pit latrines for sanitation, the impact of this on the health of the communities, potential pollution of groundwater, potential spillage into the natural river systems – especially as climate change starts to impact weather patterns and cause disasters – it is imperative to seek alternative systems that may address these issues, yet still be affordable.

The Guidelines and Standards clearly recommends or prefer a gravity waste water transportation system but holds that if public waste water sewers are not available, alternative methods for wastewater treatment need to be considered.

With the proposed increase in mean gross residential densities in the city, pit latrines is not a solution and water borne sanitation becomes more viable as it is used and paid for by more users. However, such infrastructure has a high cost and may not be affordable to all. As a result BCC will investigate alternative wastewater transportation and treatment systems. Systems such as Small scale Trickling Filter systems and small scale activated sludge sewage treatment processes are available and will be considered for suitable applications. BCC will also prepare a policy on the future use of pit latrines and, where it is allowed, set minimum standards for pit latrines that would protect both human health and the environment. The Malawi Water and Sanitation Project also includes a component of sanitation marketing, which would greatly assist in changing attitudes towards sanitation in a high density urban environment.

BCC acknowledges that the Malawi Water and Sanitation Project, besides the upgrading of the Blantyre and Soche Wastewater Treatment Plants and the upgrading of some 50km of sewage network, it is also providing technical assistance for the preparation of a Sanitation Master Plan for the city together with feasibility studies for priority sanitation investments identified in the Sanitation Master Plan. As such BCC will ensure that the Sanitation Master Plan will take due cognisance of the BUSP, particularly with respect to the possibility of the development of a wastewater treatment plant to serve the majority of future development proposed for the Lunzu Catchment Area as well as in the Luchenza Catchment Areas.

## 7.8.4 STRATEGY 4.4: TO COORDINATE WITH OTHER SERVICE PROVIDERS TO ENSURE UNITY OF PURPOSE AND SHARED STRATEGIC DIRECTION FOR THE FUTURE DEVELOPMENT OF INFRASTRUCTURE IN THE CITY.

#### 7.8.4.1 Cooperation with other Service Providers

BCC recognises the importance of aligning it's planning and development activities with BWB and ESCOM and that infrastructure provision must follow planning. BC will therefore use the BUSP as basis to get agreement and commitment to pursue the same objectives. Specific agreements that will be sought relate to:

- Following the development sequence as set in the plan and amended by BCC from time to time
- Respect the urban edge and refrain from providing water and electricity for any development that did not obtain planning permission
- Refrain from providing utility services in any new unplanned areas/ developments without planning permission.

BCC will, for any new development project undertaken by it or submitted to it for approval, ensure that BWB and ESCOM are involved in the decision and in a position to provide the necessary services.

BCC will also seek agreement with BWB and ESCOM on the costing structure for servicing new city layouts, infrastructure ownership and maintenance and affordability of services to develop a joint model for developing and costing new townships.

The Malawi Water and Sanitation Project is also providing technical assistance for the preparation of a Water Master Plan for the city together with feasibility studies and detailed engineering design for priority water supply infrastructure. As such BCC will ensure that the Water Master Plan will take due cognisance of the BUSP provisions.

#### 7.8.4.2 Ensuring Bulk Supply

While this is not a direct responsibility of BCC, it is regarded as good practice to continuously assess bulk water and energy supply risks and to engage its stakeholders regularly to have a real time understanding of the currently supply situation. BCC will also engage at an early stage to ensure timeous planning to meet the growth in demand. BCC will communicate its plans and estimates to the stakeholders as input into their own master plans to secure long term supply and distribution of water and electricity.

## 7.8.5 STRATEGY 4.5: BCC WILL DESIGN AND IMPLEMENT AN INTEGRATED SOLID WASTE MANAGEMENT SYSTEM FOR THE CITY

#### 7.8.5.1 Reconsider Physical Facilities relative to the Blantyre reality

Under the Water and Sanitation Project funded by the World Bank, attention will be given to Blantyre's solid waste management facilities and activities. These include the construction of a solid waste recycling plant and landfill in Chigumula, procurement of waste management vehicles (2 skip handlers, 2 refuse compactors and 100 skip bins). While this project will contribute tremendously to improve the current situation, BCC realise that more inputs from the city and its people are needed to augment the initiatives of the water and sanitation project.

While residents appear to be insensitive towards solid waste management and indiscriminately dump waste all over the city, it is not necessarily the case. Poor waste collection coverage, long distances to the one and only landfill, ignorance about the value of solid waste recycling and repurposing and poverty all contributes to the high levels of solid waste pollution in the city.

As a result, BCC will evaluate and consider the development of decentralised waste sites that are closer to all areas of the city, consider the development of waste sorting and transfer stations and the establishment of a facility for composting the approximately 75% of the city's waste that is organic in nature.



Plate 15: Sorting, Baled, transfer station and modern engineered landfill

# 7.9 STRATEGIC GOAL 5: STRATEGY TABLES TO DEVELOP A BALANCED AND EFFECTIVE TRANSPORTATION SYSTEM TO ENSURE MOBILITY OF THE CITIZENS OF BLANTYRE

Transportation can be described as the act of moving goods or people. Mobility, on the other hand, is the ability to freely move or be moved. Transportation is something you do and mobility is something you have. Consequently, when assessing the mobility of Blantyre residents it is in essence an assessment of the ability of residents to move or connect with the various activities that makes up daily life in the city.

Traditional emphasis in Blantyre has been on motorised transport, but levels of congestion have reached a point where it is necessary to re-think connectivity/mobility in terms of the entire spectrum of transport modes as well as needs and resources to develop a balanced and effective mobility network for the city over the plan horizon.

The Land Use Planning and Development Management Guidelines and Standards provides a description of the transport and traffic management principles that are important to provide access to work, goods and services with the least expenditure of energy, time and emissions. Emphasis is placed on:

- Improved integration of transport and land use planning,
- Improved public transport services and facilities,
- Facilitation and increase of pedestrian and cycling movement,
- Better use of technology in traffic management and
- Environmental protection measures in relation to transport infrastructure and activities.

The transportation network is an important form-giving element in any city. It influences and is influenced by land use in a continuous process of action and reaction. Successful economic development is dependent on a good transportation network with accessibility and mobility commensurate with its role as the commercial and industrial capital of Malawi.

The principal aim of the mobility goal is to ensure that the transportation network in the city complements the land use pattern and provides adequate accessibility and mobility to all residents to support domestic and business activities. This is to be achieved through the strategies elaborate below.

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
To evaluate and clearly classify its existing road system into primary distributors, Secondary distributors, local distributors, access roads and residential streets.	Council acknowledge the need to plan its transportation network carefully to fulfil the required mobility functions	<ul> <li>BCC will strive to:</li> <li>define a logical road hierarchy</li> <li>determine the standards for the planning and development of the various road classes in the hierarchy</li> <li>not have discretionary road standards but set standards to be followed in all new layouts.</li> </ul>	<ul> <li>P69</li> <li>Prepare a formal road classification system for the city and feed this into the Infrastructure Standards and Design Guidelines. Include the nonmotorised transport requirements for each road type and ensure compliance in future planning</li> <li>P70</li> <li>BCC will set the standards for all roads in the hierarchy and require all new and future development to comply with the road standards, design requirements, widths and facilities specified for each road class.</li> </ul>	A clear road hierarchy and standards	
Based on the classification, BCC will design its future arterial road system diagrammatically to serve the city in the future and ensure its ability to distribute people and goods throughout the city with multiple modes of transport.	Council acknowledges the need to have a concept of the future main road network to guide development and set the backbone of a future public transit system	BCC will strive to: ~ commit to a strategic road network and its protection against illegal building encroachment, unauthorised accesses and unsuitable widths and alignments.	<b>P71</b> Based on the land use plan, prepare a diagrammatic strategic road network that would be able to ensure future connectivity and mobility. Consider the designated nodes as well as future nodes and corridors in the preparation of the strategic road network.		

### Table 49: Strategy 5.1: To establish a logical Road Hierarchy.

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
To raise the profile of non- motorised transport in the planning and programming of transport infrastructure	Council recognises that the vast majority of residents of the city walk or cycle to their destinations daily, yet pedestrian and cycle ways are only present on some roads and are often insufficient to handle the traffic or the surfaces are such that it is difficult to use. Council is committed to improve non-motorised transport infrastructure to serve the majority of citizens without access to a vehicle	<ul> <li>BCC will strive to:</li> <li>obtain assistance to prepare a NMT Master Plan to guide the development of future NMT infrastructure</li> <li>seek opportunities to combine NMT infrastructure with the public open space system of the city which now includes all rivers and streams a defined by the 1:50 year floodlines.</li> </ul>	<ul> <li>P72</li> <li>BCC will develop and adopt guidelines for the reallocation of road space to include safe pedestrian and cycling lanes, support pedestrianoriented design standards and promote the incorporation of facilities for non-motorised road users</li> <li>P73</li> <li>BCC will investigate the use of the rivers and other public open spaces to create a nonmotorised transport backbone through the city in the form of a "riverwalk" or boardwalk or ecological and non-motorised transport corridors.</li> </ul>		
To plan a NMT backbone to accommodate cycling and pedestrian traffic in a safe environment throughout the city		BCC will strive to: ~ work with donors and partners to gradually develop the city's NMT infrastructure	<ul><li>P74</li><li>Explore the viability and desirability of a NMT flagship project that could unlock future investment in NMT.</li><li>P75</li><li>BCC will actively support the inclusion of NMT infrastructure in all its future planning and</li></ul>		
			development endeavours and will require the same from private developments		

### Table 50: Strategy 5.2: To dedicatedly plan for non-motorised transport

Table 51: Strategy 5.3: To use the principles of transport Oriented Development (TOD) to avoid future traffic problems and prepare for a feasible and viable future public transit system.

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
To implement Transit Oriented Development (TOD) in order to gradually move to a point where a public transport or transit system may become feasible and viable	Council acknowledges that the morphology of the city is not conducive to the establishment of a public transport or transit system and Council is committed to implement TOD to achieve conditions that are more suitable for a public transport system	<ul> <li>BCC will strive to:</li> <li>promote densification and intensification of land use and promote the establishment of a system of nodes and corridors which will eventually lead to conditions suitable to support a public transport or transit system.</li> </ul>	<b>P76</b> BCC will pursue the compact city strategy to also contribute to the land use and density conditions required to make public transit viable.	A more dense and compact city which is able to produce the threshold passenger numbers to support a public transit system.	
To ensure the connectivity or connectedness of the urban development nodes through the future transit backbone and to prevent unplanned urban development from encroaching on the strategic Chileka Airport	Council acknowledge that, given the circumstances in the city, public transport is a necessity. Failure to develop a public transport system is likely to seriously impede traffic movement and efficiency over the medium term. Council is therefore committed to seek a viable solution to the need for public transport system.	<ul> <li>BCC will strive to:</li> <li>define the future transit backbone and ensure that the proposed nodes are optimally positioned to support this</li> <li>investigate the use of the existing railway line as a possible backbone for a low-tech public transit system.</li> <li>actively encourage the upgrading and refurbishment of the Chileka International Airport to restore Blantyre's role in the Air travel sector in Malawi</li> </ul>	<b>P77</b> BCC will set the future transit backbone to connect the nodes and corridors and protect this backbone from encroachment to facilitate the eventual implementation of a public transit system	Prepared for transit	

# 7.10 STRATEGIC GOAL 5: SPATIAL PROVISIONS TO DEVELOP A BALANCED AND EFFECTIVE TRANSPORTATION SYSTEM TO ENSURE MOBILITY OF THE CITIZENS OF BLANTYRE

## 7.10.1 STRATEGY 5.1: TO ESTABLISH A LOGICAL ROAD HIERARCHY AND SET STANDARDS

#### 7.10.1.1 Standards and Classification

The previous urban structure plan proposed the amendment of the road classification system. However, this seems to have not been implemented and the Land Use Planning and Development Management Guidelines and Standards, revised in 2014 and retained the Malawi standards. BCC is committed to comply with the provisions of the guidelines and standards since they are binding for public and private land within the city. As a result, the roads in Blantyre was classified in accordance with the road standards as set out in the guidelines. While the standards do not specifically refer to minimum intersection spacings, building lines or design speeds for the urban roads, BCC adopts the standards as set out in Table 52.

Road Class	Minimum Intersection Spacing (m)	Road Reserve Width (m)	Building Line (m)	Design Speed	On - street Parking
Primary Distributor	800	30	9	60	none
Secondary Distributor	500	20	9	60	none
Local Distributor	200	15	5	60	yes
Access Road	100	12	5	50	yes
<b>Residential Streets</b>	50	10	3	35	yes
Cycle ways	-	1.8	-	-	
Footways	-	1.5-2.0	-	-	

#### Table 52: Road Hierarchy and Standards

**Primary Distributors** are urban roads that provide mobility and require a high degree of access control. Direct access to these facilities is limited only to priority-controlled accesses that conform to access spacing criteria.

**Secondary Distributors** provide accessibility and mobility and all accesses are acceptable, provided the spacing criteria aimed at preserving mobility on the facility are met.

Local Distributors have a balance between access and mobility. Access spacing criteria are aimed at providing safe and efficient traffic movement.

Access Roads distribute traffic in localities and form the link between distributors and residential roads

Residential Streets give direct access to land and buildings within identity areas.

By applying the standards as set out above, the strategic road hierarchy for the city was identified and this is provided in Map 38. This shows a fairly balanced strategic network but one which is dominated by vehicles with little emphasis or infrastructure devoted to pedestrian and bicycle facilities.



Map 38: Blantyre Strategic Road Network

#### 7.10.1.2 The Strategic Network to Serve the City over the plan period

One of the main aims of the BUSP is to pursue a compact city form. This basically requires that more people live, work and play within the existing city footprint. Higher residential densities means a more concentrated transportation pattern and when high enough it tips the scale to make a public transport system viable. This is what the BUSP is promoting through higher density and higher intensity land use. In addition, the promotion of the development of the nodes as well as the requirement for all new development to create meaningful district and neighbourhood nodes serve to decentralise employment opportunities, business opportunities and service provision, thereby making it possible to conduct most day to day activities within one's neighbourhood. This takes pressure of the network and stretches its capacity. The introduction of public transport and NMT facilities further contribute to lighten traffic (in comparison with what it would have been without public transport and NMT)

#### Improving Inter City and Inter district Connectivity

As an important component of the Urbanisation Pillar of Malawi Vision 2063 rural/urban linkages are also important for the transportation network. Capacity improvements of all the main arterial roads out of the city to at least dual lanes on both sides are proposed. While these roads are important arterial and district/inter city connectors, Thyolo Road, and Zomba Roads also serves a dual function of serving the main expansion areas of the city over the plan period. These roads are:

- ✓ Zalewa Road,
- ✓ Chileka Road to the Airport,
- ✓ Zomba Road,
- ✓ Chikwawa Road,
- ✓ Midima Road (Robert Mugabe Highway, and
- ✓ Thyolo Road.

#### Supporting the densification policy and reduce congestion in Blantyre

The capacity of the Chipembere Highway be improved to at least 3 lanes in each direction together with a dedicated BRT lane as well as continuous pedestrian and cycle ways. The capacity of the following roads will also be improved to at least dual lanes in each direction. As is clear on Map 39, these roads serves the proposed densification policy zone and is therefore designed to enable such densification.

- ✓ Kenyatta Drive,
- ✓ Mahatma Gandhi Road and part of Kapeni Road,

- ✓ Makata Road,
- ✓ Glyn Jones Road, and
- ✓ Victoria Avenue from Old Boma to Mahatma Gandhi Road

#### Decongesting the Limbe CBD

The Limbe CBD is the most congested city district in Blantyre City and it is imperative to do some road upgrades to deal with this congestion. BCC will cause the upgrading of the following roads:

- ✓ Upgrade Market Street,
- ✓ connect and improve James Street from Churchill Road to Kanjedza roundabout;
- ✓ improve Chiwembe Road (especially in light of the fact that the CBD is going to expand south into the Chiwembe Forest)
- Capacity improvement to Dalton Road to dual lanes on both sides to link up with Kenyatta Drive, which is also proposed for dual lanes on both sides.
- ✓ Connector road (or southern bypass for Limbe CBD) that connects Thyolo Road to Kapeni Road (some sections of this road already exist)
- Eastern bypass for Limbe from Club Banana running east of Bangwe Mountain to Mapanga (it is a long standing BCC plan and also supports our proposed land use plans for the Mapanga area.
- ✓ Chigumula road to Chikwawa Road bypass

#### Support connectivity and access to future growth areas

- ✓ Capacity improvement on the Thyolo road (already accomplished under inter city connectivity)
- ✓ Limbe Eastern Bypass to Mapanga
- ✓ Dualisation of Nkolokoti Parkway

Map 39 provides an indication of the key road upgrades that will be required to serve the city over the plan period. In addition, it also identifies the key intersections that will bear the brunt of the traffic growth as a result of population growth and densification. The priority intersections are provided in the table below.

Table	53:	Prioritv	Intersections	for a	capacity	<i>improvements</i>
				<i>,</i>	· ····································	

Priority One Intersections	Priority Two Intersections
The Chichiri Roundabout	Maselema Roundabout
Clock Tower Roundabout	Kandjedza Roundabout
Midima/Thyolo Road Roundabout	Kwacha Roundabout
Kandodo Cornershop Roundabout	C.I. Intersection



Map 39: Future Strategic Road Network upgrade

## 7.10.2 STRATEGY 5.2: TO DEDICATEDLY PLAN FOR NON-MOTORISED TRANSPORT

With the vast majority of residents of the city either walking or cycling to and from their places of work, to school, and to other services, comparatively little attention was paid to facilities for pedestrians and cyclists as well as for public transport facilities.

BCC will now prioritise the inclusion of both public transit facilities as well as NMT facilities in the upgrading of the intercity primary distributor roads as well as the roads earmarked to support the densification and intensification policies.

#### 7.10.2.1 NMT Master Plan

To plan for NMT within an environment that is so biased towards cars is challenging and besides identifying the most important routes for a NMT backbone there are other considerations such as intersection arrangements, continuity, safety and practicality that must be considered. BCC will therefore, seek assistance to prepare a NMT Master Plan for the city.

#### 7.10.2.2 Pedestrian and Cycle Routes

BCC will, with the capacity improvements of the Chipembere Highway, Chileka Road, Zomba Road, Thyolo Road, Zalewa Road, Chikwawa Road and Midima Road provide dedicated and continuous pedestrian and cycle ways. These will be constructed in accordance with the standards as set previously and will be designed in such a way that it would prevent these facilities from being used by motorised transport, p particularly motor bikes. Typical configurations are shown in



*Plate 16: Typical configurations of pedestrian and cycle lanes.* **257** | P a g e

According to the Malawi National Transportation Master Plan, the cost of a cycle lane is in the order of about MWK 90 million per km. Within the Blantyre context it would be preferable to consider slightly wider cycle lanes and pedestrian ways but only on one side of the road. In some cases it may even be desirable on lower order roads to move towards more pedestrian and cycle oriented roads with only a single roadway.

In all new developments BCC will, ensure that adequate road space is provided to accommodate cycling, pedestrian and other non-motorised transport means and layouts that promote the incorporation of pedestrian and cycle ways off the roadways will be preferred. Examples are to exclude motor vehicles from the main "streets" of nodes and neighbourhood centres and provide access and parking from the surrounding roads to services shops and business, to integrate public open spaces with the streetscape and public realm and to carefully place buildings to relate to the street spaces and enhance the public realm. Examples are provided in Plate 17.



*Plate 17: Incorporating Pedestrian and cycle ways in the urban fabric from the start.* **258** | P a g e

The BUSP proposes the development of a river trail on the Mudi River in the Mibawa Area of Blantyre City. This can be used as a design experiment to develop, evaluate, refine and prototype this river trial for replication in more of the rivers in the city. There are many examples in the world where unused space have been developed into really valuable assets in cities. Perhaps the most famous is the highline in New York City, which was redeveloped from an abandoned rail line to a quality public landscape. The Windhoek Riverwalk Initiative has been conceptually developed and also provides an idea of how to approach such a river trial in Blantyre City



Plate 18: River Walk Example (Riverwalk, 2013)

BCC will engage with the private sector and industry professionals such as architects, engineers and urban planners to collaborate with the city on finding creative and innovative ways to develop an off-the-road NMT network using the public open space and rivers in the city. Due consideration will also be given to the recommendations of the Disaster Risk Management Plan on how to deal with the city's river and streams, how to protect and reforest them and how to use them to attenuate potential future disasters and adverse weather events.

## 7.10.3 STRATEGY 5.3: TO USE THE PRINCIPLES OF TRANSPORT ORIENTED DEVELOPMENT (TOD) TO AVOID FUTURE TRAFFIC PROBLEMS AND PREPARE FOR A FEASIBLE AND VIABLE FUTURE PUBLIC TRANSIT SYSTEM.

#### 7.10.3.1 Public Transport

BCC recognises that, based on many assessments by various institutions, a public transport system is unlikely to be viable over the medium term but it is important to already now identify routes that could be protected from encroachment to accommodate a BRT system in future. The BUSP aims to address the density and urban sprawl issues that militates against a viable public transport system and will gradually increase densities to a critical threshold where it would be able to justify a public transport system.

Accordingly, BCC will, with the capacity improvements of the Chipembere Highway, Chileka Road, Zomba Road, Thyolo Road, Zalewa Road, Chikwawa Road and Midima Road provide dedicated lanes for a Bus Rapid Transit (BRT) system. Such a system makes use of dedicated lanes to separate the busses from normal traffic. For Blantyre, a BRT system from Bangwe through Limbe and Blantyre via the Chipembere Highway and then along Chileka Road to the Kameeza Roundabout. From there it can be extended to Chileka Airport once traffic volumes are sufficient. Even if the actual station facilities and roadways are not constructed immediately, it should be planned and the land reserved for the system to be built in future.





#### Plate 19: Examples of BRT configurations

#### 7.10.3.2 Urban Rail Transport

The possibility of an urban public transport system by rail was investigated with the assumption that the existing rail could potentially be used as the backbone of such a system. However, the Malawi National Transportation Master Plan (GoM, 2017(b)) found that there is simply not adequate capacity on the route since the line is nearly all single track with lots of private sidings and not sufficient space for shunting without using capacity on the mainline. The view was shared by the concessionaire and it was felt that it would be impossible to obtain a high enough frequency of service to compete with a road service.

#### 7.10.3.3 Chileka Airport

The Chileka Airport, although located in the Blantyre District is not only an important national asset but a very important asset for Blantyre City. It is therefore important that the amenity of the airport be protected against development an encroachment. The Malawi Airports Company and the Directorate of Civil Aviation are responsible for safeguarding the approach ad departure zones of the airport and BCC will seek to cooperate with these bodies as well as the Blantyre District Council to ensure that the airport is protected against encroachment that may jeopardise safety requirements.

# 7.11 STRATEGIC GOAL 6: STRATEGY TABLES TO ENSURE THAT THE URBAN NATURAL ENVIRONMENT IS IN THE STRONGEST POSSIBLE POSITION (RESILIENT) TO DEAL WITH THREATS AND PRESSURES

The natural environment in the city is subjected to many pressures. These include the deforestation of reserves and conservation areas, encroachment of unplanned development into these areas, settlement on steep slopes, the cultivation of mainly maize on the deforested mountain sides, encroachment of unplanned development onto river banks within flood lines, pollution of the environment in general and the river courses in the city in particular due to an ineffective solid waste management system and indiscriminate dumping of waste. Broken WWTPs spills polluted water into the rivers and may impact the quality of groundwater over the longer term and impact the health of the city's inhabitants.

These unsustainable practices were tragically exposed when cyclones Ana, Gombe and Freddy hit the City in 2022 and 2023, resulting in mudslides and flooding that led to the death of more than 100 people.

With the impact of climate change seemingly strengthening over time, it is to be expected that extreme weather events, including droughts and heavy rain with strong winds, are likely to occur more frequently. The management of the risk of disaster and implementing measures to keep people and property as safe as possible during such events has become an important component of the management of settlement and land use in areas that are prone to such disasters. Consequently, and with the assistance of the World Bank, Blantyre City procured the preparation of a Disaster Risk Management Plan to analyse the risks and make recommendations on how to best adapt and prepare for similar events in future. Some of the recommendations of that assignment has direct linkages with the BUSP in the sense that it makes recommendations that requires implementation as part of the provisions of the Structure Plan.

These recommendations can be effectively implemented through land use planning and development control activities as well as changes to the regulatory framework guiding permissible settlement and land use in the city. The BUSP therefore incorporates recommendations from the Disaster Risk Management Plan.

The sub-strategies designed to achieve strategic goal 6 are enumerated below.
Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
To implement the provisions of the Disaster Risk Management Strategy	Council acknowledges the risk of climate change as well as the extent to which the risk is exacerbated through human behaviour such as settling on steep slopes, deforesting the conservation areas and setting in flood prone zones. Council is committed to mitigate this risk in Blantyre City through all possible means to keep its residents and their property safe.	<ul> <li>BCC will strive to:</li> <li>Formulate and implement regulations which would prevent people from putting themselves in danger.</li> <li>Enforce these regulations strictly</li> <li>Remedy the situation where settlement in risk areas exist by gradually resettling such residents to other safer areas.</li> </ul>	<ul> <li>P78:</li> <li>No development will in future be allowed within the 1:50 year floodlines along the city's rivers and streams and all development applications will in future be required to indicate the 1:50 year floodlines where such land is located less than 200m from any river or stream</li> <li>P79</li> <li>BCC will work toward the re-location of houses and other fixed property located within the 1:50 year return period floodlines and the high landslide risk areas as determined by the Risk Atlas and Risk Management Strategy for Blantyre City.</li> </ul>	As from July 2024, no further settlement will occur within the set 1:50 year floodlines As from July 2024, no development, township establishment, subdivision or re-zoning applications will be accepted unless it indicates the position of the 1:50 year floodlines relative to the locality of the property which is the subject of the application. By 2026, BCC has developed a policy stance and legal position with respect to the relocation of settlement from high risk areas, especially with respect to the issue of compensation.	The GIS shapefiles of the 1:50 year floodlines will be made available to applicants to use in their applications and for BCC to check the accuracy of the floodlines presented in applications.
To ensure that the tools and approaches for resilience are integrated in urban planning and management	Council acknowledges that there are tools available to it to make the city resilient against shocks and disasters and is committed to use all these tools to ensure that urban planning does its part in preventing people from developing in	<ul> <li>BCC will strive to:</li> <li>Ensure that development in high risk areas are prevented.</li> <li>That infrastructure is designed with climate change in mind.</li> <li>Make the public aware of the rationale of strictly controlling settlement in high risk areas.</li> </ul>	<ul> <li>P80: Include a provision in the evaluation of any and all development applications requiring a registered engineer to certify the 1:50 year floodline in all cases where the proposed development is close to a river or stream or in any way potentially subject to flooding.</li> <li>P81: BCC will ensure that road and stormwater infrastructure are designed in accordance with the minimum infrastructure design guidelines and</li> </ul>	By 2025, council has procured engineering consultancy to review the design standards for especially roads and stormwater infrastructure to make provision for the potential impact of severe storm events on the capacity of especially stormwater infrastructure. By 2025, Blantyre residents are aware of the risk related	

# Table 54: Strategy 6.1: To protect the city, its infrastructure and its people from the effects of climate change and other shocks (Promote Urban Resilience)

	unsuitable areas, put themselves at risk and then claim compensation from BCC to relocate to safer areas.		<ul><li>standards and certified by a professional engineer.</li><li><b>P82</b></li><li>BCC will design and implement a public awareness campaign on what people can do to reduce the risk of being affected by disasters. This would include the identification of the main threats of flooding, seismic activity and landslides.</li></ul>	to natural disasters and climate change and understand that it is in their best interest to change their behaviour and follow the law.	
To reduce the city's carbon footprint through emphasis on electrical mobility and walking and cycling (NMT) and the promotion of green building and green roofs.	Council acknowledges its responsibility to also contribute to reducing the city's carbon footprint through formulating and implementing policies and decisions that are in line with this objective.	BCC will strive to: ~ Promote more eco- friendly mobility options such as walking, cycling and the eventual development of a public transit system that produce less emissions than the fleet of private vehicles and taxis produce currently.	<ul><li>P83: BCC will support the carbon emissions reduction components of the Mobility and Connectivity goal, most notably the drive for public transit and the development of NMT</li><li>P84: BCC will promote the use of green building technologies and provide green building guidelines to its residents to promote</li></ul>	By 2027, BCC developed a NMT backbone by using existing pedestrian and cycling infrastructure and augmenting it with new infrastructure on Strategic routes. BCC will market its green building guidelines to the community to promote more sustainable building practices.	

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
To direct growth away from sensitive areas, particularly the very sensitive river courses, hills, high mountains, steep slopes and ridgelines and the rivers and dams in the city and direct growth away from areas at risk from natural hazards	Council acknowledges that spontaneous settlement without council permission has led to settlement in sensitive and dangerous areas and Council is committed to prevent settlement in sensitive and risky areas of the city through effective monitoring and development control	<ul> <li>BCC will strive to:</li> <li>Determine sensitive and risky areas and institute the necessary controls to prevent settlement in these areas.</li> <li>Determine land uses that may be allowed in these areas and determine how permission for such land uses may be granted and under what conditions.</li> </ul>	<ul> <li>P85</li> <li>Map these sensitive and risky areas, compare with the mapping from the Risk Atlas and designate these areas as not suitable for future development.</li> <li>P86</li> <li>Designate permissible land uses in these areas with emphasis on its ability to serve as NMT movement corridors and public open space.</li> <li>P87</li> <li>BCC will formulate a settlement policy particularly for these areas and implement a monitoring system to ensure that only designated land uses are allowed in these zones.</li> <li>P88</li> <li>BCC will prepare a forest intervention plan for the renewal and enhancement of urban vegetation</li> </ul>	From the date of the adoption of the BUSP, these areas will be kept free from new development and existing development will be gradually removed and people resettled elsewhere.	
To ensure that adequate public open space is reserved to ensure a better quality of life for residents and to protect the environment	Council acknowledges that public open spaces are extremely important urban spaces. Not only does it provide biodiversity related spaces where natural fauna and flora are accommodated, but it should also provide recreational and leisure related spaces for the local	<ul> <li>BCC will strive to:</li> <li>ensure that, in all new layouts, 5% of the plots in such layouts would be usable public open space with an additional 5% allowed to be biodiversity related open space</li> </ul>	<ul><li>P89</li><li>During the upgrading of the dense unplanned settlements, the designation of usable public open spaces will form part of the process and at least 5% of land must be reserved for usable public spaces.</li><li>P90</li></ul>	From the outset, all new layouts, irrespective by who it is submitted, shall be required to supply public open space as required in the Town Planning Standards and Layout Design Guidelines.	Town Planning Standards and Layout Design Guidelines.

## Table 55: Strategy 6.2: To protect the Natural Environment and Critical Natural Assets

	population to use and enjoy. Council is committed to plan and maintain an open space system that is able to serve the community, especially in the light of the proposed densification which requires more common open space than is the case in low density with large plots.	<ul> <li>designated to protect natural features.</li> <li>ensure that every new layout contributes to an open space system linked to surrounding areas to form a continuous or linked system.</li> <li>during unplanned settlement upgrading and in the planned areas, identify suitable unused land to develop as parks to serve all neighbourhoods.</li> </ul>	All future layouts and new developments shall be required to set at least 10% of the total land area in a particular layout aside for public open space, 5% of which must be suitable to be developed as play areas, recreation areas, public gardens or parks.		
To conserve and protect river ecosystems	The Council acknowledges that the rivers and stream courses in the city represent an important component of the city's ecosystem and are the areas with the most biodiversity and biodiversity potential, despite its current state. Council is committed to implement measures to protect the rivers and streams from human impacts related to littering and waste dumping, discharge of polluted effluent and sand mining.	<ul> <li>BCC will strive to:</li> <li>ensure that residents are aware of the negative impact of indiscriminate waste dumping</li> <li>this will be augmented with the development and implementation of an integrated solid waste management system that covers all areas of the city and ensures scheduled waste collection</li> <li>regulate effluent discharge into its rivers and streams and control indiscriminate sand mining by limiting it to suitable areas</li> </ul>	<ul> <li>P91</li> <li>Identify the areas where the rivers are most at risk of litter and solid waste finding its way into the river courses and feed this into the provisions of the Integrated Solid Waste Management Strategy</li> <li>P92</li> <li>Upgrade the WWTP in the city to ensure that effluent that is discharged into the natural system meet minimum standards</li> <li>P93</li> <li>To conserve the river ecosystems and reduce occurrence of flooding, BCC will not allow any illegal sand mining in the city and will formulate a policy framework and establish a bylaw on sand mining to regulate mining activities in a sustainable way and enforce its implementation.</li> </ul>	The upgrading of the Blantyre and Soche WWTPs are completed by the end of 2025 and effluent discharge is monitored and managed to be within allowable standards. By the beginning of 2030, work has commenced with the upgrading of the Limbe and Chirimba WWTPs. By the end of 2027, BCC will have an Integrated Solid Waste Management System in place to deal with the city's solid waste, inclusive of recycling, sorting at source initiatives, and composting of the high organic content of the city's waste. By 2025, BCC has formulated and gazetted a by-law on sand mining in the city's rivers.	Solid Waste Management Plan Sand Mining Bylaw Clear statement of effluent standards required from the WWTP and any other effluent discharge in the city.

To protect farming areas from urban encroachment and support appropriate development in rural areas through the envisaged joint committee between BCC and the Blantyre, Thyolo and Chiradzulu District Councils	Council is committed to limit the urban footprint of the city and thereby keeping it compact and sustainable. To achieve this, Council acknowledges that it needs to work together with its counterparts in the District Councils, whose interest should be the protection of rural farming areas from unplanned urban type development.	<ul> <li>BCC will strive to:</li> <li>ensure that the BCC and the three District Councils engage each other in order to develop a joint strategy to achieve this objective to the benefit of all parties.</li> </ul>	Refer to P6	By the end of 2024, BCC would have commenced with negotiations with the District Councils and have reached in principle agreement on permitting higher density non-agricultural development outside of Blantyre's urban edge. By the end of 2025, a joint committee between Blantyre City and the three District Councils has been set up in accordance with the act, to deal with issues of mutual concern and to find common ground on the future development of the city and its fringes.	
To provide for urban agriculture in the context of urban land use as opposed to extensive rural type maize cultivation in every possible open space in the city.	Agriculture in Blantyre City, besides gardens within plots, largely consists of the cultivation of maize on every possible portion of open land including on mountain sides, steep slopes and the banks of the rivers and streams. As more and more land is developed over the plan period, less land will be available for conventional rural type cultivation. However, council acknowledges the importance of cultivation in Malawian culture as well as its necessity to provide food for poor households.	<ul> <li>BCC will strive to:</li> <li>contribute to the transition from a rural type of agriculture within the city limits to urban agriculture which would grow different and higher value crops needing less land.</li> <li>Actively encourage and promote urban agriculture through providing dedicated areas to pilot real urban agriculture projects inclusive of hydroponics and aquaponics.</li> </ul>	<b>P95</b> <b>BCC</b> identified two suitable experimental sites. These are designated for intensive urban agriculture and BCC will work with development partners to establish viable urban agriculture pilot projects which can be replicated elsewhere in future. This can then be rolled out in future.	By 2026, BCC commenced with community based pilot projects downstream from the Soche and Blantyre WWTP where treated wastewater is used to grow high value crops that are suitable for this type of water without posing health risks.	Urban Agriculture map.

Sub Strategy	Policy Statement	What this means/Requires	Policy guidelines	Desired Land Use Outcomes	Related Policy/Plan
To reduce the impact of urban development on downstream river systems and dams and on groundwater.	Council recognises the importance of preventing pollution of river systems and dams and on groundwater resources in the city. Council is committed to implement an effective pollution prevention and control system to monitor all wastewater and effluent discharges from any source and take the necessary action where effluent standards are not adhered to.	<ul> <li>BCC will strive to:</li> <li>devise a system of regular testing of effluent quality at the wastewater treatment facilities and require immediate remedial actions should effluent be found to be below standard.</li> <li>monitor wastewater and effluent from the industrial areas, especially illegal hazardous effluent dumping into the normal river systems</li> <li>identify off-site sanitation systems for use in new development and upgrading projects such as land use intensification at the nodes where public sanitation is imperative. Many different types of systems are available in the market, can be packaged, is easy to operate, and deliver clean effluent.</li> </ul>	<ul> <li>P96</li> <li>BCC will design a system to monitor pollution of its rivers from all human activity, most notably from domestic and industrial effluent and from solid waste and require polluters to cease their activities until such time as their effluent quality meet the required standards.</li> <li>P97</li> <li>BCC will also devise a system of rewards and awards for environmental stewardship shown by communities and industry to protect the water resource and enhance environmental protection in general.</li> <li>P98</li> <li>BCC will seek alternative sanitation models and replace pit latrines over time</li> <li>P99</li> <li>BCC and BWB will continuously monitor groundwater for signs of pollution that may occur as a result of the large number of unimproved pit latrines in the city.</li> <li>P100</li> <li>Irrespective of where it is located, should the BCC be of the opinion that a proposed industry may discharge noxious effluent or unpleasant noise, fumes, smoke dust or smell, an environmental impact assessment shall be required before development may take place.</li> </ul>	By 2028, BCC will have a comprehensive monitoring and evaluation system in place where all effluent sources have been identified and are tested regularly and the penalties and rewards are applied without fear or favour as contemplated in the environmental legislation	

## Table 56: Strategy 6.3: To prevent and control pollution

## 7.12 STRATEGIC GOAL 6: SPATIAL PROVISIONS TO ENSURE THAT THE URBAN NATURAL ENVIRONMENT IS IN THE STRONGEST POSSIBLE POSITION (RESILIENT) TO DEAL WITH THREATS AND PRESSURES

## 7.12.1 STRATEGY 6.1: TO PROTECT THE CITY, ITS INFRASTRUCTURE AND ITS PEOPLE FROM THE EFFECTS OF CLIMATE CHANGE AND OTHER SHOCKS (PROMOTE URBAN RESILIENCE)

#### 7.12.1.1 1:50 Year Floodlines

The 2000 – 2015 Blantyre Structure Plan already regarded the determination of 1:50 year floodlines as imperative to control development and keep residents out of harm's way. The just completed Disaster Risk Management Strategy, as part of its assessment, determined floodlines for various return periods for most of the rivers in the city and recommended that the 1:50 year floodlines be used to define the extent of flood risk areas and that it be used as a limit to settlement in close proximity to the rivers. BCC concurs with this view and no development will further be allowed within the 1:50 year floodlines as determined by this study. Where possible and practical, the run of all the rivers were evaluated and flood attenuation and sponge areas were added to the floodlines to prevent settlement and to keep these areas open to help with accommodating and attenuating floods.

BCC will engage ward councillors and leaders, especially in the worst affected areas, to assist it in identifying any settlement that are taking place without planning permission and to mobilise the communities to assist in preventing settlement within the 1:50 year floodlines and to disseminate information to community members about the danger to people and property should they illegally settle within the 1:50 year floodlines.

The 1:50 year floodlines are available in digital form from BCC and any development application that is prepared and submitted to BCC in future will be required to show and demonstrate that the property that is the subject of the application is not affected by the 1:50 year floodlines.

Both illegal settlement and the failure of development control to prevent settlement within the minimum distances from river courses led to the erection of a large number of houses and structures within the floodlines. BCC acknowledges this state of affairs as well as the difficulty of re-locating such residents to safer areas. BCC will gradually work toward the re-location of houses and other fixed property to safer places. To this end a new layout has already been prepared but residents in risk areas

expect compensation before they are prepared to re-locate. This complicates matters and BCC will seek legal resolve on how best to handle this situation.



*Map 40: 1:50 Year Floodlines* **271** | P a g e

#### 7.12.1.2 Climate Resilient Infrastructure

As exposed by the recent cyclones, the city's infrastructure is in some cases not able to deal with the volumes of water resulting from such unusually intense rainfall. With the intensity and variability of climate events such as floods and droughts expected to increase as a result of climate change, BCC will require that the civil engineers that designs road and stormwater infrastructure do so with climate change in mind and in accordance with minimum infrastructure design standards. Professional Engineers will be required to certify their designs to ensure that due consideration was given to climate proofing infrastructure.

## 7.12.2 STRATEGY 6.2: TO PROTECT THE NATURAL ENVIRONMENT AND CRITICAL NATURAL ASSETS

#### 7.12.2.1 Open Space System and its protection

Blantyre has gone through a period where the natural assets of the city have gradually been stripped away. Natural forest on Ndirande and Soche Hills have all but disappeared, Sachinga Forest Reserve is under siege and vegetation clearing along hillsides and steep slopes are the order of the day. Agriculture, mainly growing maize in the same way it is done in the rural areas takes place on virtually every portion of unused land in the city. BCC is committed to reverse this situation. All the reserves and conservation areas, the public open spaces and the rivers and streams of the city as defined by the 1:50 year floodlines are now regarded as the city's open space system and no development of any permanent structures or agricultural activities may take place within these zones.

BCC will favourably consider or initiate the use of the public open space system as depicted in Map 41 for the purpose of accommodating NMT facilities such as cycle ways and pedestrian ways. In addition to the NMT infrastructure itself, BCC may, on application, allow architect designed structures to be erected along these pedestrian and cycle ways for purposes such as cafes, coffee shops, street food outlets and public park facilities. Tree planting will be actively pursued and participants will also be required to contribute to the tree planting initiative to re-establish urban vegetation and riverine vegetation.



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#### Map 41: The Public Open Space System comprising current and newly designated open spaces

#### 7.12.2.2 Future Allowance for Public Open Space

BCC recognises that inadequate public open space have been designated in the land use planning of the city. This is exacerbated by unplanned settlement where little thought is given to reserving land for open space purposes. Instead, all useable land is used for housing and doing business.

BCC is committed to ensuring that adequate provision for public open space will be made in the future planning of land use in the city. All new town planning layouts will be required to allocate at least 10% of land to public open space. Of this, 50% must be useable and developable public open space that can be used for parks and recreation while the other 50% may be for biodiversity related open space such as rivers, areas with shallow groundwater or steep slopes. This will also be applied in upgrading projects and it is important to support the intensification and densification goals of the BUSP. With higher densities, private spaces tend to become smaller and it is therefore necessary to substitute private space with pleasant and useable public open space.

#### 7.12.2.3 Protecting River Ecosystems

BCC will rigorously implement controls over pollution of the rivers by effluent from the city's sewer systems and wastewater treatment plants and from solid waste through the development of an Integrated Solid Waste Management Strategy supported by a new engineered landfill site, a recycling centre and increased waste collection and removal capacity afforded by the Water and Sanitation Project.

While the Blantyre and Soche Wastewater Treatment Plants will be upgraded as part of the Water and Sanitation Project, Limbe and Chirimba WWTPs are also in desperate need of upgrading to prevent polluted effluent from being discharged into the river systems. BCC will seek assistance to upgrade these plants as well.

Sand mining has a huge impact on the environmental health of the river systems and leads to erosion and loss of riverine vegetation. BCC will no longer allow sand mining within the built-up area of the city. Any sand mining activity will in future be required to obtain a permit and to submit an environmental scoping report prior to the granting of such permit will be considered.

#### 7.12.2.4 Urban Agriculture

Agriculture in Blantyre can only be classified as urban agriculture in so far as it takes place within an urban area but in method and type it is the same as rural agriculture taking place in the districts surrounding the city. As the city grows more compact less and less space will be available for extensive

rural-type agricultural activities and this practice will have to change into different types of agriculture such as hydroponics, aquaponics or small scale intensive irrigation ventures. It is anticipated that this transition will take some time to establish amongst the local population who are so used to traditional ways. To make a start, the BUSP identified two dedicated experimental sites for urban agriculture pilot projects. These are shown in the map below and BCC will work with partners and NGOs active in the agriculture sector to pilot community projects at these two sites, develop systems and BCC will then



allocate additional land for the expansion of such projects to other suitable areas.

The two designated sites are located downstream from the WWTP Soche and downstream from the Limbe WWTP. It is assumed that following its upgrading, the Soche WWTP will have effluent standards that would render its effluent suitable for the growing of certain types of crops and produce. This is to be determined by way of experimental trials to determine if it works, is practical and safe for human consumption.

Map 42: Designated Urban Agriculture Experimental Sites

#### 7.12.2.5 Pollution Prevention and Monitoring

While BCC's intention to ensure that the city's environment and sensitive areas are protected has been elaborated before, it is necessary to formalise a monitoring system to ensure that:

- effluent from WWTPs and from industries are tested regularly to ensure compliance with the minimum standards,
- when effluent standards are not met, that the activity cease until such time as the treatment process
  has been repaired and effluent is in compliance, and
- groundwater is tested regularly to ensure that the large number of pit latrines and septic tanks do
  not cause pollution of the groundwater.

In anticipation and following the precautionary principle, alternative sanitation options will be investigated with the view of replacing the many unimproved pit latrines with a different less pollutive system.

BCC reserves the right to, when it suspects that development proposals or new industry or any other activity may cause noise, air or water pollution, it may require an environmental impact assessment prior to the development being authorised.

In the interest of promoting environmental stewardship, BCC will devise a system of rewards and awards which may be given to any entity such as a community, an industry or a product or system that contributes to the protection of the environment in any way.

## 8.1 THE KEY ISSUES

From a spatial planning and land use planning point of view, the key issues in Blantyre City relate to unplanned settlement which results from an inability to plan and provide serviced land for orderly settlement. Development control failure has led to people settling in environmentally sensitive and unsafe areas, lacking basic utility services for a good quality life and lacking the range of social and institutional services ordinarily expected in urban areas. The potential reasons that led to this state of affairs are many. The financial position and resources of council as well as its development partner institutions is an important challenge. Linked to very low levels of affordability and high levels of poverty of the majority of the city's residents, council cannot even borrow money to execute projects with a view to repay a loan once the land is sold.

On the other hand, residents find themselves in a position where they cannot afford available plots and they have no option but to find themselves a place to build a shelter or a house. Various avenues are followed by such residents and as more people settle in an area it gradually grows into dense unplanned settlement. The sad part is that residents spend a substantial sum of money to construct (generally) a permanent shelter but they lack security of tenure and are always in fear that they may need to relocate.

Picture the scenario where the same person is allocated a plot in a planned and surveyed layout. Like in the unplanned settlement there are also no utility services but there is a future; a future where services can be incrementally supplied without moving or resettling people, a future where the house that was built has secure tenure, a future where the neighbourhood will in time grow into an integrated neighbourhood with the whole range of land uses such as business, schools, health facilities, community facilities, open spaces, recreation facilities and a road and street system that provides access.

## 8.2 THE KEY GOVERNANCE PRINCIPLES

The BUSP is in essence a land use plan. Based on a comprehensive assessment and applying a set of planning principles, it sets desirable future land use patterns and arrangements to reach defined objectives to propel the city to a better future. Perhaps the most important ingredient to achieve this goal is the preparation of layout plans able to **roll out a large number of formal planned and surveyed plots**. This would satisfy the **principle of effectiveness and efficiency** – producing the results that meet the needs of the community in spatial and settlement terms.

If this can be achieved, it **opens the door to apply the rule of law** and prevent unplanned settlement from continuing to grow. It also makes it possible for the political realm to support the enforcement of regulations and by-laws. Through the process of participation and opening the channels of communication between BCC and residents, honest sharing of information and the rationale for taking certain decisions, transparency grows and prepares the ground for mutual understanding and consensus building.

BCC wants residents to have trust in the council and is committed to building that trust through being honest and trustworthy to a point where council can also share failures and inabilities to perform with its constituents. It is better to acknowledge that we don't have the resources to do something than to keep quiet and wait until public opinion or public pressure forces one to make such an admission. It is furthermore important not to promise something that cannot be delivered – rather under promise and over deliver.

Another crucial aspect of transparency BCC will emphasise is the provision of financial information. Citizens easily state and hold the opinion that BCC must first deliver a service before they are prepared to pay their city rates.



However, they have no idea of the revenue of council relative to the expenditure required to deliver the services at its ideal level.

Comparisons with other cities in the region helps to bring perspective and curb expectations. It also makes a case for the gradual and regular increase in city rates to enable council to deliver the required services.

## 8.3 PLANNING DRIVEN

BCC regards the Blantyre Service charter as a good start towards improving governance and will continue to refine it and augment it with information that is important to its citizens. However, to put the spatial development and growth of the city on a different trajectory as envisioned by the BUSP will require an in-house solution where the urban and regional planners in the employment of the city will need to bear the brunt of the work to prepare layout plans, take it through a consultation process, motivate and submit it for approval and then have it surveyed and ready for allocation.

However, more work to understand the situation of the people who is likely to eventually settle in these neighbourhoods is required and much work with the beneficiary communities is required to ensure that our planning will be as focused as possible and that the layouts and levels of service are commensurate with the needs of the communities.

## 9 PHASING AND IMPLEMENTATION

The BUSP together with its Annexures will serve as a guide to BCC to implement the strategies and realise the objectives of the plan. IMPLEMENTATION PLAN TO FOLLOW

## **10 Bibliography**

Bank, W. (2023, 07 11). World data. Retrieved from
https://www.worlddata.info/africa/populationgrowth.php: https://www.worlddata.info
Barre, J. (2014). Waste Market in urban Malawi - A Way oout of Poverty.
BCC. (2018). Participatory Vulnerability and Capacity Assessment Report. Blantyre: BCC.
BCC. (2019). 2019 - 2024 Disaster Risk Management Plan for Blantyre. Blantyre: BCC.
BCC. (2023, 07 28). https://bccmw.com/blantyre-city-by-laws/. Retrieved from Blantyre City By-Laws: https://bccmw.com
Blantyre City Council. (n/d). Blantyre City Council Service Charter. Blantyre: BCC.
BWB. (2017). Annual Report. Blantyre: Blantyre: Blantyre Water Board.
BWB. (2020). Strategic Plan 2020 - 2025. Blantyre: Blantyre Water Board.
BWB. (2023). Malawi Water and Sanitation Project (MWSP-1). Blantyre: Blantyre Water Board.
C C Kaonga, C. K. (2013). Water Qulity Assessment in Bangwe Township, Blantyre City, Malawi. African Journal of Environmental Science and Technology, 259-266.
City of Johannesburg . (2016). City of Johannesburg Spatial Development Framework. Johanneburg:

City of Johannesburg. Coulson, A. R. (2021). The cost of a sustainable water supply at network kiosks in Peri-Urban

Blantyre, Malawi. Sustainability, 13(9).

ESCOM. (2018 (a)). Integrated Strategic Plan. Lilongwe: ESCOM.

ESCOM. (2018 (b)). *Malawi 2018 - 2023 Electricity Sector Investment*. Lilongwe: Electricity Supply Commission of Malawi.

ESCOM. (2023). 2023-2027 Tarrif Base Application. Lilongwe: Electricity Supply Commission of Malawi.

GOM. (2002). Malawi National Land Policy. Lilongwe: Ministry of Lands, Housing and Surveys.

GOM. (2010). Local Government Act . Lilongwe: Government of Malawi.

GoM. (2015). *Malawi National Biodiversity Strategy and Action Plan II (2015 - 2025)*. Lilongwe: Government of Malawi.

GOM. (2017). *The Malawi Growth and Development Strategy (MGDS) III*. Lilongwe: Government of Malawi.

GoM. (2017(b)). *Malawi National Transport Master Plan Final Report*. Lilongwe: Government of Malawi.

GoM. (2019). National Urban Policy. Lilongwe: Government of Malawi.

GOM. (2019). National Urban Policy. Lilongwe: GOM.

GOM EMIS. (2022). 2022 Malawi Education Statistics Report (EMIS). Lilongwe: Ministry of Education.

JICA. (2022). *Data Collection Survey on Urban Water Supply in Blantyre City*. Retrieved from https://openjocareport.jic.go.jp/pdf/12335402.pdf: https://openjocareport

Kalina, M. a. (2020). Bad Trash: Problematising waste in Blantyre, Malawi. Detritus 12, 187-200.

Kaza, S. B.-T. (2018). *What a Waste 2.0: A global Snapshot of Solid Waste Managment to 2050.* World Bank.

Malawikom.org. (2023, 7 13). *https://malawikom.org/hospitals.html*. Retrieved from Ministry of Health, Government Health Institutions: www.Malawikom.org

Maoulidi, M. (2013). Health Needs Assessment for Blantyre City, Malawi. *MCI Social Sector Working Paper Series*.

Mawenda, J., Watanabe, T., & Avtar, R. (2020). An Analysis of Urban Land Use/Land Cover Changes in Blantyre City, Southern Malawi (1994 - 2018). *Sustainability*.

NPC. (2020). Malawi 2063. Blantyre: National Planning Commission.

NSO . (2020 (a)). 2018 Malawi Population and Housing Census: Economic Characteristics of the Population Report. Zomba: NSO.

NSO. (1998). 1998 Malawi Population and Housing Census. Zomba: NSO.

NSO. (2008). 2008 Population and Housing Census Main Report. Zomba: NSO.

NSO. (2010). Population and Housing Census 2008: Analytical Report Volume 10 - Economic Activity. Zomba: NSO.

NSO. (2017). Malawi Demographic and Health Survey, 2015-16. Zomba: NSO.

NSO. (2018). Labour Force Survey. Zomba: NSO.

NSO. (2019). 2018 Malawi Population and Housing Census Main Report. Zomba: NSO.

NSO. (2020 (c)). *The Fifth Integrated Household Survey (IHS5) 2020 Report*. Zomba: National Statistical Office.

NSO. (2020 (g)). 2018 Malawi Population and Housing Census: Water and Sanitation Report. Zomba: NSO.

NSO. (2020). Statisitical Yearbook 2020. Zomba: National Statisitcal Office.

NSO. (2020(b)). 2018 Malawi Population and Housing Census: Spatial Distribution of Population including Urbanisation Report. Zomba: NSO.

NSO. (2020(d)). 2018 Malawi Population and Housing Census: Education Report. Zomba: NSO.

NSO. (2020(e)). 2018 Malawi Population and Housing Census: Mortality Report. ZOmba: NSO.

NSO. (2020(f)). 2018 Malawi Population and Housing Census: Migration Report. Zomba: NSO.

NSO. (2020(g)). 2018 Malawi Population and Housing Census: Population Projections 2018 - 2050 Report. Zomba: NSO.

NSO. (2021). 2020 Malawi Poverty Report. Zomba: Malawi National Statistics Office.

OECD. (2019, September 10). *Education ant a Glance*. Retrieved from https://www.oecdilibrary.org/education/education-at-a-glance-2019\_f8d7880d-en: https://www.oecd-ilibrary.org

Phekiso Consulting Engineers. (2017). Provision of Consultancy Services to Assess Five Treatment Sites in Blantyre. Blantyre: Phekiso.

Pheskiso Consulting Engineers. (2017). *Final Report: Consultancy Services to Assess five Treatment Sites in Blantyre*. Blantyre: not published.

Rashed, T. (2023). Consultancy Services for the Development of a Comprehensie Risk Atlas and Risk Management Strategy for Blantyre City with an Integrated Flood Risk Management Plan.

Riverwalk, G. (2013). Riverwalk Initiative. WIndhoek.

S Collet, M. Y. (2019). SDF Report - Blantyre, Malawi. Zomba: WASHTED.

S Kumwenda, M. T. (2012). Determination of Biological, Physical and Chemical Pollutants in Mudi River, Blantyre, Malawi. *Journal of Basic and Applied Scientific Research 2(7)*, 6833-6839.

SR Chikabvumbwa, S. M. (2021). Impacts of Urbanisation on Seasonal Water Quality Dynamics in Mudi River in Blantyre District, Malawi. *International Research Journal of Science and Technology, Vol 2, Issue 2*, 398-405.

The Nation. (2021, 08 16). The Nation. Retrieved from https://mwnation.com.

UN - HABITAT. (2010). *Malawi Urban Housing Sector Profile*. Nairobi, Kenya: United Nations Human Settlement Programme.

UN Habitat. (2011). Malawi: Blantyre Urban Profile. Nairobi, Kenia: UN Habitat.

UNDESA: Population Dynamics. (2018, July 11). UNDESA World Urbanisation Prospects 2018. Retrieved from population.un.org/wup/country-profiles: https://population.un.org/wup/country-profiles

UN-HABITAT. (2011). *Malawi: Blantyre Urban Profile*. Nairobi, Kenya: UN Habitat Regional and Technical Cooperation Decision.

WASAMA/Unicef. (2020). *Drinking Water Quality Audit Report*. Lilongwe: Ministry of Forests and Natural Resources.

World Bank. (2023). *Project Appraisal Document on Water and Sanitation Project*. Wahington: World BAnk.

World Bank. (n.d.).

https://documents1.worldbank.org/curated/en/496011611551081262/pdf/Malawi-Master-Health-Facility-List.pdf. Retrieved from Malawi Master Health Facilities List: https://documents1.worldbank.org