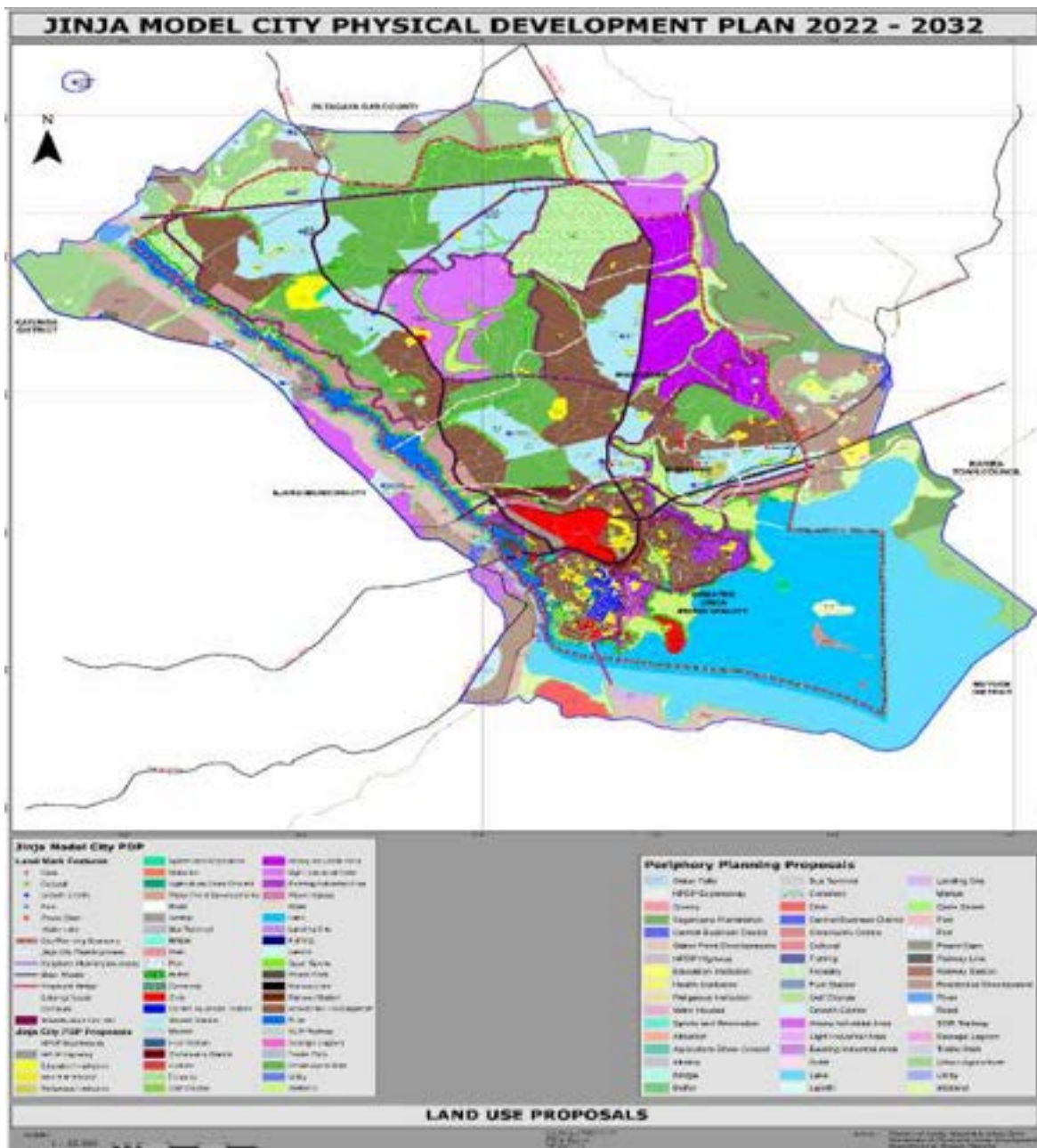




## JINJA CITY INTEGRATED PHYSICAL DEVELOPMENT PLAN 2022-2032.



## VISION

*“A sustainable and prosperous city with excellence in tourism, commerce and industry by 2040.”*

## **ACKNOWLEDGEMENTS.**

First of all, a vote of thanks goes to the technical team of Ministry of Lands, Housing and Urban Development and Jinja City for spearheading the preparation of this Physical Development Plan. Special thanks go to the stakeholders of Jinja for their support towards the preparation of this plan. These include; religious leaders, community, political leaders, utility agencies, civil society organisations, industrialists, hotel and tourism sector plus business community.

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## **EXECUTIVE SUMMARY.**

Jinja City is one of the newly created cities and it is located 80km East of Kampala, the capital city of Uganda. Uganda's vision 2040 spells out Jinja as a strategic industrial city. The Jinja City Physical Development Plan provides a framework for ensuring orderly development in the city. Ministry of Lands, Housing and Urban Development together with Jinja City spearheaded the preparation of the Physical Development Plan with support from the World Bank through the Uganda Support to Municipal Infrastructure Development (USMID) Program.

### **Basis of the Physical Development Plan.**

The biggest challenge to Physical planning in Uganda was the failure to implement Physical Development Plans. In order to address this challenge, MLHUD under the USMID Program initiated the “model town planning process” that was to be implemented in one of the 14 USMID supported Municipalities. A criteria was developed to select one Municipal Council and Jinja emerged the best and henceforth selected to benefit from the project. The major aim of the Jinja model city planning process was to;

**“Prepare, through a highly participatory process, a Model Integrated Physical Development Plan for Jinja City that will guide the orderly and sustainable development of the City but most importantly, provide a model planning process for the other urban areas in the country.”**

This planning process will therefore provide a benchmark for all subsequent planning processes in urban areas of the country.

### **Jinja Model city Integrated PDP.**

First of all, the Jinja City PDP was prepared following an integrated approach. The activity commenced with development of a Municipal Development Strategy (MDS) for Jinja Municipality which is a 30-year plan that provides a long-term strategic development direction for the City. The MDS provides a 30-year vision for the City, lays down a SWOT, strategic objectives and strategies for the city that were integrated in the PDP.

The methodology for preparing the Jinja City PDP entailed; sensitisation of stakeholders, data collection, existing situation analysis and formulation of the future land use plan for Jinja City. The Jinja City PDP was prepared in a highly participatory manner and a number of stakeholders were consulted. These included the community, special interest groups like

religious leaders, political leaders, industrialists, technocrats, hotel and tourism fraternity among others.

Socio-economic data was collected through administering questionnaires to stakeholders, review of secondary data and holding focus group discussions. Spatial data was collected using GPS machines to map major features including schools, health centres, recreational facilities, water points and civic centres. This data was analysed and informed preparation of the PDP for Jinja City.

The existing condition of Jinja city was analysed by the planning team and a number of thematic areas were considered including; population, environment, housing, economy, land use, infrastructure and utilities plus social and cultural institutions. Jinja City has a population of 247,074 people (UBOS 2014). This was projected to reach 877,360 by 2040 at a growth rate of 5%. In terms of housing, the City is mainly characterised by a linear settlement pattern. The major economic activities include mainly trade and commerce plus agriculture. The land use activities include residential, farming, commercial, industrial development among others.

Chapter five (5) of this report present the Jinja City Physical Development Plan which establishes a planning and development framework for the City. The PDP provides a number of land use proposals and strategies that will guide the future development of Jinja City up to 2040. The PDP is linked to high level documents like the Vision 2040 and the National Development Plan III. The PDP is also in harmony with other plans of the City specifically the City Development Strategy and Five Year Development Plan. The PDP presents a good practice adopted under this planning exercise dubbed, “peripheral planning”. The Jinja City PDP does not only cover aspects within the city but slightly touches areas outside the city boundary specifically in Njeru Municipal Council, Butagaya Sub County, Kakira Town Council and Buikwe District and this helps to control development beyond the city boundary.

### **Plan implementation strategy.**

This Chapter provides the strategies that will lead to successful implementation of the PDP. They are classified into both short and long-term. The source of funds to implement these actions is also presented plus the potential partners. A series of strategies/actions have been suggested including, consistent stakeholder sensitisation, detailed planning and road opening. There are also suggested actions to improve the livelihoods of the communities including construction of markets.



## **CHAPTER 1: INTRODUCTION.**

Government of Uganda is committed to ensuring orderly development and this is achieved through preparation and implementation of Physical Development Plans. Although a number of Local Governments have Physical Development Plans (PDPs) in Uganda, implementation of these plans has remained a challenge in the country. In pursuance of its commitment to improving implementation of Physical Development Plans, Ministry of Lands, Housing and Urban Development created a Department of Land Use Regulation and Compliance with a mandate of ensuring compliance to the Land use regulations especially the Physical Development Plans. The department has also derived a number of tools to guide the process of Land use regulation and plan implementation. However, despite having all these measures in place, implementation of PDPs in the country is still a big challenge. In order to ensure that PDPs are implemented in Uganda, Ministry of Lands, Housing and Urban Development through the Uganda Support to Municipal Infrastructure Development (USMID) project deemed it necessary to develop a step-by-step model planning process that takes cognizance of the Ugandan situation to prepare implementable PDPs.

The Ministry developed a criterion which was used to assess the suitability of each of the 14 USMID Municipalities to benefit from this model planning process. Jinja Municipality emerged the best and was therefore considered for planning as a model city. The planning process was spearheaded by officials from Ministry of Lands, Housing and Urban Development specifically the Directorate of Physical Planning and Urban Development together with Jinja Municipal Council.

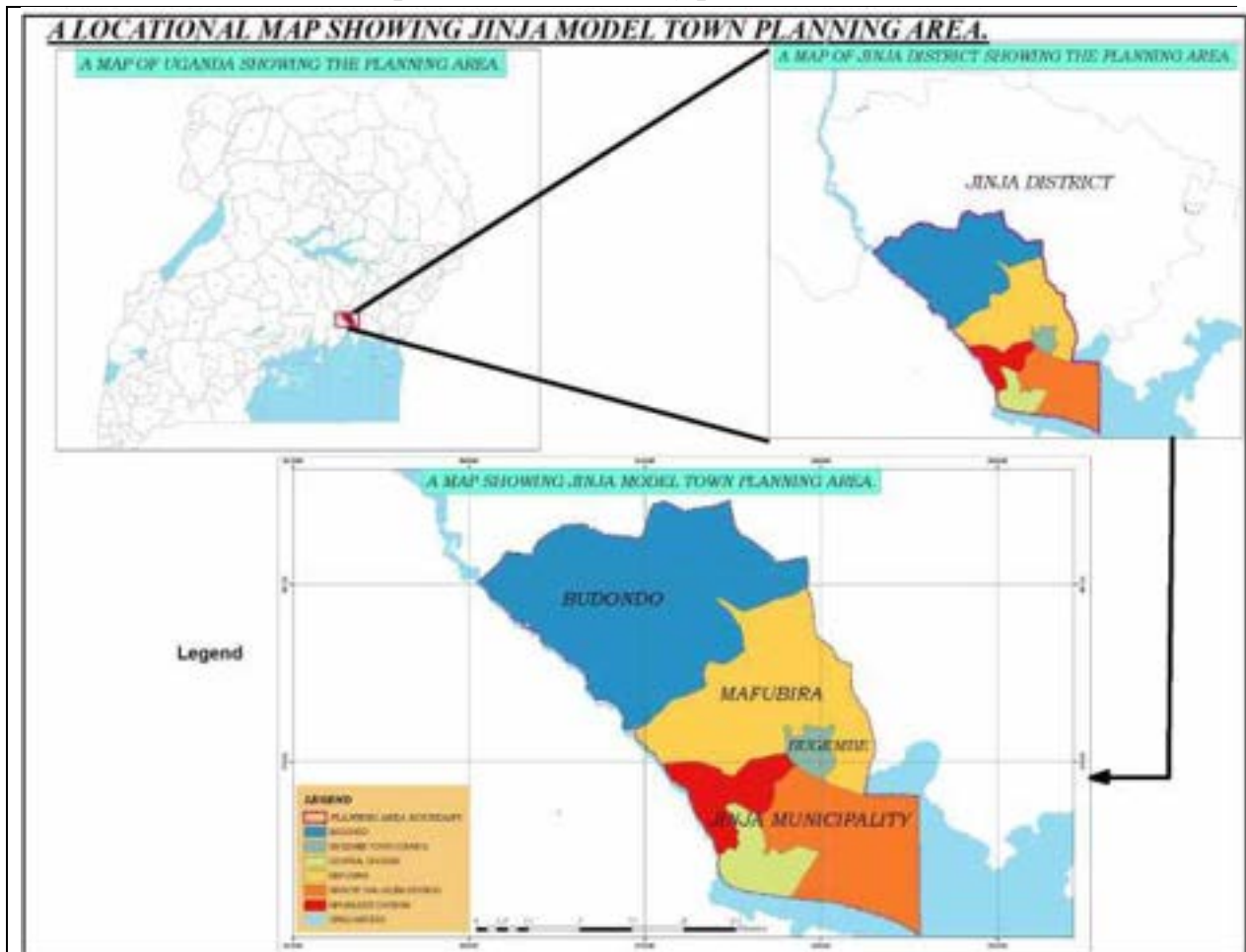
### **1.1 LOCATION OF JINJA CITY.**

Jinja City is located 80 km east of Kampala the Capital City of Uganda. Jinja is the second largest town in Uganda. Situated in eastern Uganda, it is located on the eastern bank of the source of the River Nile and northern shore of Lake Victoria. Lake Victoria borders the town to the south. Jinja was an industrial hub in the mid-20<sup>th</sup> century, before going through decay in the 1970s-80s. The impacts of which are still felt on its physical and social infrastructure. Today, Jinja is a commercial and industrial hub that attracts people from nearby. It is well connected by road and rail to Kampala and neighboring countries. Being a hub, its daytime population greatly exceeds its number of residents. There are seven main

informal settlements. Its vision for the future is “A sustainable and prosperous city with excellence in tourism, commerce and industry by 2040.”

The map below shows the boundary of Jinja city and the area coverage of the various administrative units that form the city.

**Figure 1-1: A locational map showing model city planning area**



*Map 1: Location of Jinja City*

### **1.3. HISTORICAL BACKGROUND.**

In 1906, the British Colonial Governor, Hesketh Bell, under the Uganda Township Ordinance (1903) proclaimed Jinja a Township, having grown from a fishing village. On 26<sup>th</sup> of June 2006, Jinja turned 100 years as a town. Pursuant to the provisions of the Municipality Ordinance (CAP 103) of the legislature of the British Protectorate, a proclamation made on 8<sup>th</sup> December 1956 by the Governor of the Uganda Protectorate, came into force on the 1<sup>st</sup> January 1957 establishing Jinja Municipality. Therefore, in January 2019, Jinja marked 62 years as a Municipality.

In April 2020, pursuant to Section 7 (2a) of the Local Government Act and article 179 (1) (A) of the Constitution, parliament approved the elevation of Jinja to city status effective 1<sup>st</sup> July 2020. The city of Jinja comprises of the current Municipality, Bugembe Town Council, Mafubira and Budondo Sub counties and it has two divisions; Jinja South and Jinja North. Jinja South covers the current Municipality whilst Jinja North covers Bugembe, Mafubira and Budondo.

#### **1.4 STRUCTURE OF THE REPORT.**

This report is structured as follows;

##### ***Chapter 1: Introduction.***

The chapter introduces the assignment for the preparation of the Physical Development Plan. The location of Jinja city and chronicles about historical background of Jinja are provided.

##### ***Chapter 2: Legal and Institutional Framework.***

The legal framework that guides town planning in Uganda and other related laws are cited in this chapter. The legal framework provides strong foundation for the planning and processes followed during the exercise. The relevant institutions that govern town planning in Uganda are highlighted collectively with the roles attached to each institution. Governance aspects that guide planning are highlighted.

##### ***Chapter 3: PDP preparation Process***

An illustration is shown of the model city plan preparation process. In-depth explanations are made about the various stages to illustrate the uniqueness of the participatory process.

##### ***Chapter 4: Existing Situation Analysis.***

This chapter provides a detailed analysis of the existing where service gaps are established. These gaps are further analysed using population projections to establish the need to provide more services in specific locations.

##### ***Chapter 5: Goal, objectives and Issues developed from citizen participation.***

This chapter looks at the goal for the planning process with emphasis on the vision, mission of the city. The stakeholder aspirations are revisited and an illustration is made of how these have been addressed.

##### ***Chapter 6: Model City Physical Development Plan.***

Planning principles utilised in the process are explained in this chapter. A detailed explanation is further made about the spatial and non-spatial planning proposals made illustrative of model city planning. The integration between the different planning processes is further shown in this chapter.

### ***Chapter 7: Implementation Strategies.***

This chapter explains the institutions, process and implementation modalities. A detailed analysis is provided about resource mobilisation for plan implementation. Plan implementation monitoring mechanisms and review strategies are highlighted.

## **CHAPTER 2: POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK**

### **2.1 POLICY AND LEGAL FRAMEWORK**

Preparation of the Jinja model Town Integrated Physical Development Plan was informed by both the Uganda Vision 2040 and the NDP II. The intention is to capture the national aspirations while focusing to specific aspects for the Eastern region.

#### **2.1.1. Vision 2040.**

The Vision 2040 is Uganda’s development guide and it aspires to change Uganda from a predominantly low-income to a competitive upper middle-income country within 30 years. It is supported by 10-year and 5-year Development Plans. It sets the following National Vision statement;

***“A Transformed Ugandan Society from a Peasant to a Modern and Prosperous Country within 30 Years.”***

The vision provides 9 basic components, physical, non-physical. These 9 components provide the key pillars to transform the country and society to the desired future while focusing on the vision:

- 1. Regional Context Governance.*
- 2. Knowledge & Skills.*
- 3. Macro Economy.*
- 4. Wealth creation and management of the local economic Sectors, Peace & Stability;*
- 5. Knowledgeable & Skilled Society;*
- 6. Inclusive growth & Human Capital development;*
- 7. Environmental Sustainability;*
- 8. Development of Infrastructure systems, Settlements & Facilities*
- 9. Transportation and Utilities.*

While preparing the model city plan, each component was evaluated and reflected on the plan either spatially or non-spatially.

#### **2.1.2. National Development Plan.**

The NDP III (2020/21- 2024/25) is the third in a series of 5-year plans aimed at achieving the Vision 2040. The NDPIII emphasizes the promotion of integrated physical development planning at the regional, district and urban council levels. This is aimed at enhancing operationalization of the National Physical Development Plan. The Jinja model

City PDP elaborates and provides recommendations on how these priorities set out in the NDP can be realized.

### **2.1.3 The National Physical Development Plan**

The NPDP provides a basis for integrating spatial and non-spatial environmental, economic and social issues of national development planning. The core elements are patterns of human settlements, land uses and natural resources.

To ensure streamlined implementation of the NPDP, the NPDP is aligned to the main “components” of Uganda’s Vision 2040. Spatial aspects within the NPDP that lie in the eastern region were highlighted and incorporated in the model city plan.

### **2.2. Government Policies.**

The PDP was driven by numerous policies, namely the National Land Policy, the National Land Use Policy, the National Environment Management Policy and the National Policy for the Conservation and Management of Wetland Resources, the National Urban Policy among others.

### **2.3. Legal Context.**

The preparation of the PDP was guided by a number of legislations and these also provide the basis for its implementation. These are summarized below.

#### ***2.3.1 The Constitution of the Republic of Uganda, 1995***

This is the supreme law of Uganda and forms the apex of the legal framework and is also the fundamental legal basis for planning and land management in Uganda. Of particular interest is the provision that land belongs to the people and sets out various forms of tenure. Article 190 provides for the district councils to prepare comprehensive and integrated plans. It also provides for Government to hold in trust for the people and protects natural lakes, rivers, wetlands, forest reserves, game reserves, national parks and any land to be reserved for ecological and tourist purposes for the common good of all citizens. The provisions are best provided in the district PDP. This legal also provided the roles of the Local Governments at all levels in land management and conservation of the district environmentally sensitive areas.

#### ***2.3.2 The Local Government Act (CAP 243)***

The Local Government Act is responsible for the functioning of the system of local governments based on the district as the highest centre of Local Administration. Under the districts there are lower local governments and administrative units. The preparation of the PDP is guided by the provisions of the Act. It also provides for the different functions at the different levels of Local Governments. The Act gives Districts autonomy but not

independency to prepare their own Physical Development Plans within the National Planning Framework. Section 36 part (3) and part (2) in the second schedule No.5 (vi and xi), gives functions and services for which district councils are responsible for such as district project identification, district development planning and physical planning.

Part IV of the local Government Act sections 30 (2), 31 - 36 (2) bestows the functions and services that the district is mandated to perform as specified under Part 2 of the Second Schedule. The Act defines the planning authority in the district as the District council and how it shall carry out planning in relation to guide lines of the National Planning Authority.

### ***2.3.3 The Physical Planning Act 2010 and Physical Planning (Amendment) Act 2020***

The Act is the principal law governing the preparation of PDPs at all planning tiers including the preparation of District Physical Development Plan. The preparation of the PDP is guided by the provisions of the Act. The planning process followed to prepare the district PDP is greatly provided for under this Act. Of significant importance are the provisions Under Part I Section 3 of the Act that declares the entire country a planning area. Hence City Council is an agent of the Central Government which is mandated to prepare the plan and submit it to the National Physical Planning Board for approval. The act also, under Section 6 (1) (i) and 25 – 29, stipulates the content, preparation and approval process of the District PDPs.

### ***2.3.4 The Land Act (CAP 227)***

This law was enacted in order to implement the constitutional provisions on land ownership and management. It provides the framework for the various land tenure systems in Uganda and provides for the management of land. The preparation of the PDP is guided by the provisions of the act. Of significant importance are the provisions under section 42, that provide that the government or local government may acquire land in accordance with articles 26 and 237 (2) of the constitution. Articles 237 (8) and (9) guarantee security of occupancy of lawful and bona fide occupants of Mailo land and other registered land and oblige parliament to enact a law regulating the relationship between them and registered owners of the land they occupy.

Also, Part III Section 46 of the same Act puts emphasis on use of land to comply with the Physical Planning Act and any other relevant laws concerning planned land use. Correspondingly, of significant importance is section 44, that provides for government or local government to hold in trust for the people and protect fragile ecosystems such as natural lakes, rivers, ground water, natural ponds, natural springs, wetlands and other land reserved for ecological and touristic purposes for the common good of the citizens of Uganda. Physical planning is one of the preliminary steps through which this mandate can be exercised. The implication of this Act in relation to the physical development plan is

such that the zoning provide therein becomes law, hence the owners have to conform to the approved plans no matter their land rights held.

### ***2.3.5 The Land Acquisition Act, 1965***

This Act provides the compulsory acquisition of land by government if it is deemed essential for a public good such as a major piece of infrastructure. This Act is of particular interest to Jinja with significant tourism and industrial investment. The process for compulsory acquisition of land for public purposes by Government as treated in detail in the Situation Analysis report (September 2019).

### ***2.3.6 The Public Health Act (CAP 296) and the Building Control Act, 2013***

The public health tackles issues in respect to infectious diseases, vector control, buildings of various types and uses as well as drainage and sanitation. The Act specifies details of the building standards under Section 269-13 which apply in cities and District, planning areas. All developers are, by this law, required comply with the stipulated requirements. It is important to note that the building rules and standards under Section 269-13 were repealed by Section 55 (1) and (2) of Building Control Act, 2013 which in effect takes precedence over any other Act or instrument in existence relating to building operations, before coming into force of this Act. The Act therefore takes precedent over the building's rules in the Public Health Act Cap 296 as far as rules regulating building construction and power to require removal or alteration of work not conforming to the rules.

### ***2.3.7 The National Environment Act (CAP 153)***

The National Environment Act specifies the mandate of the National Environment Management Authority (NEMA) as “the principal Agency in Uganda responsible for the management of the environment by coordinating, monitoring, regulating, and supervising all activities in the field of environment”. More specifically sections 49 and 46 concern land use planning and forest resource management, in particular section 7 (b) under Part III specifies that NEMA. Of significant importance is Part VII Sections 34 to 55 that outlines all the relevant environmental management mandates of NEMA in collaboration with the Government and Local Governments.

### ***2.3.8 The Wildlife Act, 1996***

This Act is of significant importance to Jinja that is rich in wildlife and conservation areas and the area specifically earmarked as a tourism destination area. The act guided on the sustainable management of wildlife and consolidation of all efforts to conserve wildlife in the district with monitoring and supervision from Uganda Wildlife Authority. The PDP integrates the requirements for effective planning and stakeholder participation in



sustainable management of wildlife, tourism resources and conserved/protected areas in the district.

## **2.4 Other Legislations**

Other legislations that have guided the preparation of the PDP and subsequent implementation requirements include the following;

1. The Forest Act, 1999; on protection, management and proper utilization of district forest resources.
2. The Historical Monuments Act, Cap 46; on the preservation and protection of the district historical monuments and objectives of archaeological, paleontological, ethnographical and traditional interest
3. Preservation of Amenities Act, Cap 244
4. The Game (Preservation and Control) Act, Cap 198
5. The Water Act, Cap 152
6. The Mining Act, 2003

## **2.5 Regulations, Guidelines and Standards**

The Regulations, Guidelines and Standards frameworks have guided the preparation of the PDP and subsequent land use compliance frameworks and they include the following: -

1. The Physical Planning Regulations
2. The National Physical Planning Standards and Guidelines 2011
3. The National Environment (Audit) Regulations 2009:
4. The National Environment (Minimum Standards for Management of Soil Quality) Regulations:
5. The National Environment (Minimum Standards for Discharge of Effluents into Water or Land) Regulations:
6. The National Environment (wetlands, River banks and Lakeshores Management) Regulations:
7. The National Environment (Noise Standards and Control) Regulations:
8. The National Environment Impact Assessment Regulations, 1998:
9. The National Environment Waste Management Regulation, 1998:
10. The National Environment Hilly and Mountainous Areas Regulations:
11. The National Physical Planning Standards and Guidelines 2011.

## **2.6 Institutional context in Physical Planning.**

The Government of Uganda is structured as follows;

- Central Government: Ministries and Agencies
- District Local Government
- City Councils
- County and Sub county
- Municipal Councils
- Town Councils
- Parishes

Physical planning in Uganda was decentralized. All Local Governments are responsible for implementing physical planning activities within their areas of jurisdiction. Ministry of Lands, Housing and Urban Development plays a supervisory role over the Lower Local Governments (Districts, Municipal Councils and Town Councils).

In regard to preparation of PDPs, MLHUD is responsible for preparing National and Regional PDPs whereas District, Urban and Local PDPs are prepared by the respective Local Governments. In this regard, the comprehensive PDP (Structure plan) that will be produced under this assignment is an urban PDP. All other detailed plans that will be prepared under this assignment will be local plans. This Plan was also informed by higher hierarchy PDPs like the National Physical Development Plan (NPDP).

The Physical Planning Act provides for an institutional hierarchy for physical planning at National and Local Government levels. It provides for the National Physical Planning Board at the National level, District, Urban and Physical Planning Committees. The Committees are responsible for physical planning activities in their areas of jurisdiction.

## **2.7 Institutional Framework.**

### ***2.7.1 National Physical Planning Board.***

The Physical Planning Act provides for the establishment of a National Physical Planning Board. The board consists of 11 members appointed by the Minister. The board has a function of advising government on all matters relating to physical planning. Determines and resolves matters from physical planning committees. The board is the technical arm of government in relation to issues concerning physical planning.

### ***2.7.2 District Physical Planning Committee***

The Physical Planning Act 2010 under Section 9 provides for the composition of the District Physical Planning Committee (DPPC) while Section 10 and 25 (1) stipulates the functions of the Committee and defines the key actors in the process and institutions that relate with the DPPC in the planning, approval and will definitely relate to critical component of the development control in the district.

### ***2.7.3 Urban physical planning committee***

Section 11 of the PPA 2010 provides for the establishment and composition of urban physical planning committees for the urban authority or city. Section 12 provides for the functions of an urban physical planning committee. The committee has been very central in the process. The accompanying frameworks integrate the act requirements on but not limited to the following;

- a) How to manage matters on applications for change of land use in conjunction with the National Physical Planning Board
- b) Matters of significant impact on contiguous land;
- c) Management of applications relating to industrial location, dumping sites or sewerage treatment which may have injurious impact on the environment as well as applications in respect of land adjoining or within a reasonable vicinity of safeguarding areas.

### ***2.7.4 Local Physical Planning Committees***

Implementation of the district PDP necessitates the development of lower local and urban PDPs, detailed plans and mechanisms for actual implementation of the recommended components of the PDPs. This will obviously fall on the District and the newly created local and urban entities in the District with the involvement of a complete cross-section of other government ministries and agencies, the private sector and affected communities. Through the decentralization policy, local authorities are mandated to prepare physical development plans and detailed plans in their areas of jurisdiction. However, approval of these plans was a sole responsibility of the line Ministry with technical advice from the National Physical Planning Board. The key institution at the sub-county level is the Local Physical Planning Committee.

### ***2.7.5 Other Institutions Charged with Enforcement of Compliance***

The district PDP is prepared in consultation with all institutions charged with planning, management, and enforcement of compliance to legal requirements, regulations, standards and guidelines. The key institutions include;

1. Land administration and management Agencies
2. District Land Offices
3. District Land Boards
4. Area Land Committees
5. Local Government staffing structures constituted by the Ministry of Public Service

## **2.8 Urban Governance Aspects (Spatial Governance)**

One of the sector goals of Jinja's Development Plan is to carry out civil education for community members and leaders at all levels in order to promote good governance. Local and City Governments play a critical role in spatial development and implementation as well as development of spatial policy. Urban managers and administrators are key decision makers in plan preparation and implementation taking into account the broader land use strategies including master planning, land use planning, neighborhood planning, slum upgrading and redevelopment among others.

The most important tools for space governance that have been applied in Jinja City model planning are: coherent urban development, system of land acquisition, consolidation and re-parceling in order to protect natural and cultural landscape, creating public space and urban policy to reduce dispersed investments and to order the inner structure of the city (e.g. eco-city, compact city, smart growth), creating socio-economic relations and controlling urban sprawl.

Urban authorities in Jinja City will oversee spatial economic and industrial strategy, infrastructural development thus shaping current and future spatial and non-spatial developments in short, medium and long-term through strategic planning as guided by the Jinja City Development strategy and Investment plans. The National Urban Policy for Uganda 2017 under objective 5 provides for the promotion of good urban governance and one of the key strategies is to strengthen urban governance with appropriate institutions and mechanisms that promote and encourage stakeholders' involvement.

Strong civic leadership is therefore a critical component in managing urban change and directing the new cities like Jinja towards a sustainable urban future. The City Mayor has to provide clearer leadership Vision as provided for in the City Development Strategy, through effective coordination between council leadership, the technical team through the Town Clerk and citizen representation using the governance platform called City Development Forum.

With regard to sustainable urban development, governments rely on partnerships with non-governmental actors, and in particular with private companies that can provide technological solutions and capital for investments. The cities, including Jinja, seek to explore the potential of the private sector to finance projects, develop technologies and innovative solutions, and to enhance the scale and cost-effectiveness of particular measures.

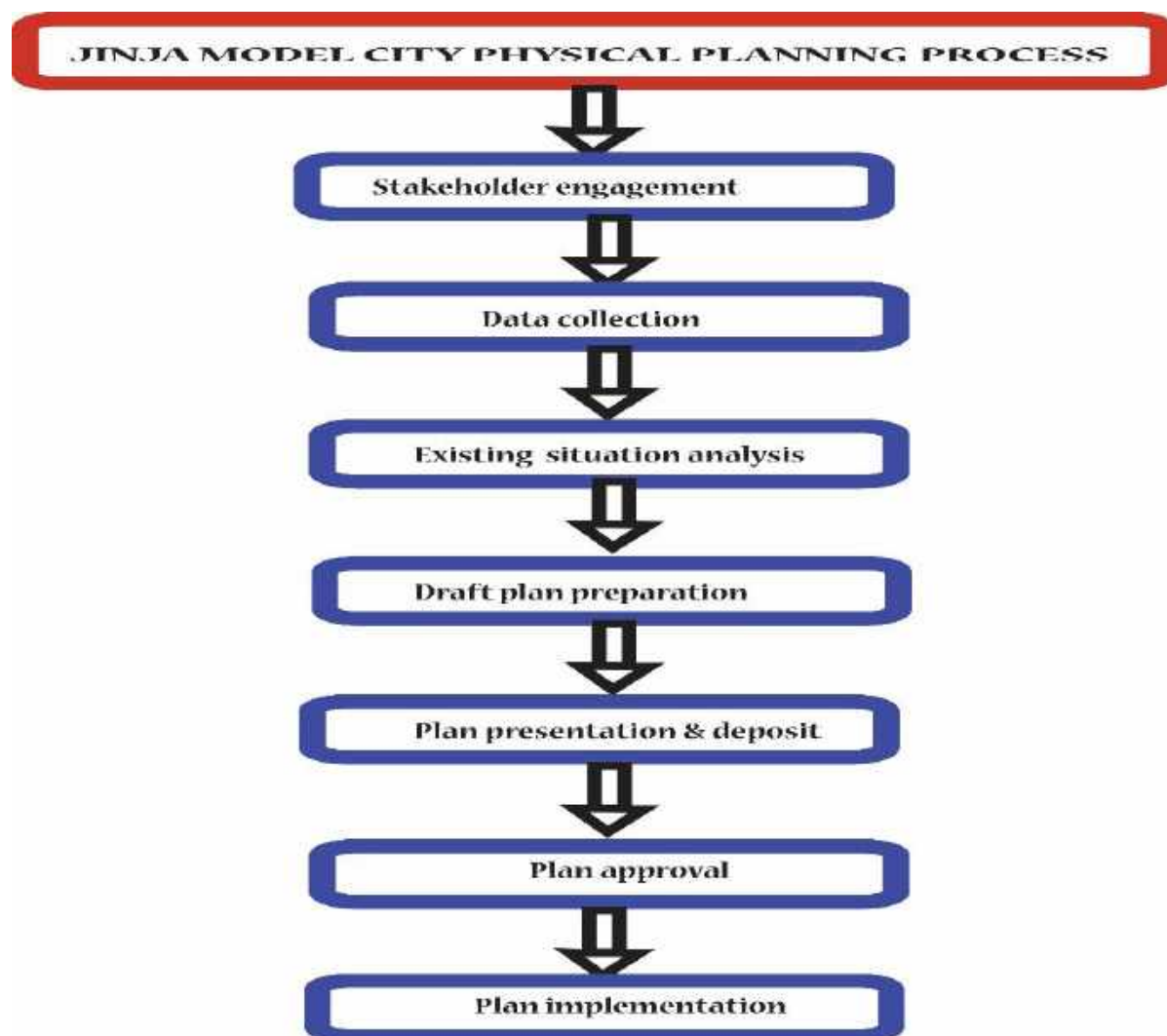
Wahab (2008) stated that, inclusive and participatory urban planning and management is capable of reinvigorating and revitalizing our existing and future cities. It can be inferred from this that inclusive and participatory physical planning could be achieved in an environment where rule of law and good governance plays an important role to ensure sustainable urban environment. Good governance in turn promotes accountability, transparency, efficiency, and rule of law in public institutions and public lives at all levels.

It's therefore paramount to note that a robust Legal and Institutional Framework for management and governance of Cities and other urban areas will be crucial in positioning Jinja as a centre and engine for economic growth and organized.

### **CHAPTER 3.0. METHODOLOGY/ PDP PREPARATION PROCESS.**

The previous chapter delved into the institutional and legal framework governing the operations of physical planning. The legal framework provides strong foundation for planning and the processes followed during the exercise. The current chapter explores the model city plan preparation process. In-depth explanations are made about the various stages to illustrate the uniqueness of the participatory process.

A step by step process was followed in preparing the Jinja model city Integrated Physical Development Plan. The process was phased into six major stages that included; stakeholder engagement, data collection, existing situation analysis, draft plan preparation, draft plan presentation and deposit, plan approval and plan implementation.



### **3.1. Stakeholder engagement.**

The Jinja model city planning process was highly participatory as a number of mechanisms were used to rally and engage stakeholders. Information Education and Communication (IEC) materials like banners, posters, flyers and brochures were used to popularize the planning process.

A number of stakeholder engagement workshops were also held to sensitize key stakeholders but also to seek their buy-in to the plan. Stakeholders that included land owners, politicians, utility bodies, civil society organizations among others were identified and consulted. These provided a lot of information that was considered during the preparation of the PDP.

Furthermore, parish engagements were held in form of outdoor meetings/barazas and through this, the biggest percentage of the local community was able to provide input to the planning process. Meetings were held in all the 14 parishes in Jinja Municipal Council including the islands of Kisiima 1 and Kisiima II.

In addition, meetings were held with special interest groups. These are categories of people that usually have good information for the planning process and each of the groups was consulted separately in order to give them the liberty to freely air out their views to the planning process. Stakeholders that were consulted under this category included; industrialists, Business community, slum dwellers, MDF representatives, Kyabazinga institution, NGO's and CSOs, Hotel and Tourism industry, transporters, Bugembe and Rubaga diocese, CAA, SGR, utility companies (UNRA, NWSC, UETCL), DLB, Pentecostal and Uganda Railways.

### **3.2. Data collection.**

In order to come-up with a Physical Development Plan, data collection is a requirement. Under the Jinja model city planning process, both spatial and socio-economic data was collected by the planning team. Spatial data was collected using Geo-positioning systems (GPSs) and Orthophotos of the planning area. Technical officers on the planning team undertook transect walks while mapping key features in the planning area like roads, schools, churches, police stations, recreational facilities including playgrounds and open spaces, boreholes, mosques, offices, hotels among others.

Socio-economic data was also collected on various themes that included; population, housing, environment, education, health and sanitation, infrastructure, economy, tourism

and cultural heritage, industry among others. All of this data was mapped out and provided a basis for preparation of the PDP and the proposals therein.



*Team collecting spatial data.*

### **3.3. Existing situation analysis.**

When preparing a Physical Development Plan, it is important to understand the existing conditions of the area being planned. This chapter helps answer the question; “where are we now as a town or city?” It forms a strong basis for coming up with the PDP. During this planning process, analysis of the existing condition was undertaken on various thematic areas including; population, environment, social services and facilities, infrastructure and Local Economic Development. A number of thematic maps were also prepared as elaborated in Chapter III of this report.

### **3.4. Setting priorities and drafting of the Draft Physical Development Plan.**

The findings from the analysis of the existing condition of Jinja City provided a strong basis for the planning team to understand where the city can be in the next 20 years. But also through undertaking an opportunity and constraint analysis and understanding the comparative or competitive advantage of the city, the team was able to come-up with viable proposals in the Physical Development Plan of Jinja City with specific regard given to the overall city vision.

The proposals in the PDP include heavy and light industries in Mafubira and Budondo, commercial centres and markets, recreational facilities like stadia and play grounds, bus



parks, roads, health facilities and schools among others. The PDP also proposes buffers to conserve environmentally sensitive features like lakes, rivers and wetlands.

A number of maps have also been prepared on various thematic areas including industry, tourism, trade and commerce, physical infrastructure, sports and recreational facilities, transportation, urban governance, environmental protection and urban agriculture.

### **3.5. Draft Plan presentation and deposit.**

As per the overall objective of the Jinja model city planning exercise, the planning process was highly participatory. The Draft Physical Development Plan was presented to a number of stakeholders that included the executive committee and council members of all the entities that constitute the city, Physical Planning Committee members, key identified stakeholders from Jinja including; Area members of parliament, Busoga Kingdom, religious leaders, environmental activists, and industrialists among others. The Draft PDP was also presented to technical officers of Ministry of Lands, Housing and Urban Development. All these stakeholders made valuable input to the Draft PDP before it was displayed in strategic places within the city where all members of the general public would make their comments in line with Section 27 of the Physical Planning Act 2020.

### **3.5. Plan approval.**

In line with the Physical Planning Act 2010 (Section 28), after the expiration of the display period of 90 days, the PDP was presented to the Physical Planning Committee of Jinja City which approved it then it was presented to Jinja City Council which recommended for consideration by NPPB. The PDP was then presented to the National Physical Planning Board and was approved

### **3.5. Plan implementation.**

The final phase of any planning process is implementation of the Physical Development Plan. An implementation strategy has been provided to guide the City Council in implementing the PDP over the 20 year time-period. In addition, a detailed plan for Mafubira growth centre has been prepared under this planning exercise to guide road pegging and opening, land sub division, establishment of public infrastructure and other developments. Furthermore, using the detailed plan for Mafubira, some preliminary plan implementation activities were undertaken by the planning team. These included; road pegging, dissemination of the plan and sensitization of the public on effective plan

implementation. It is recommended that the implementation phases be closely monitored and evaluated.

### **3.6 Goal, objectives and issues developed from citizen participation.**

#### **PDP Preparation Process.**

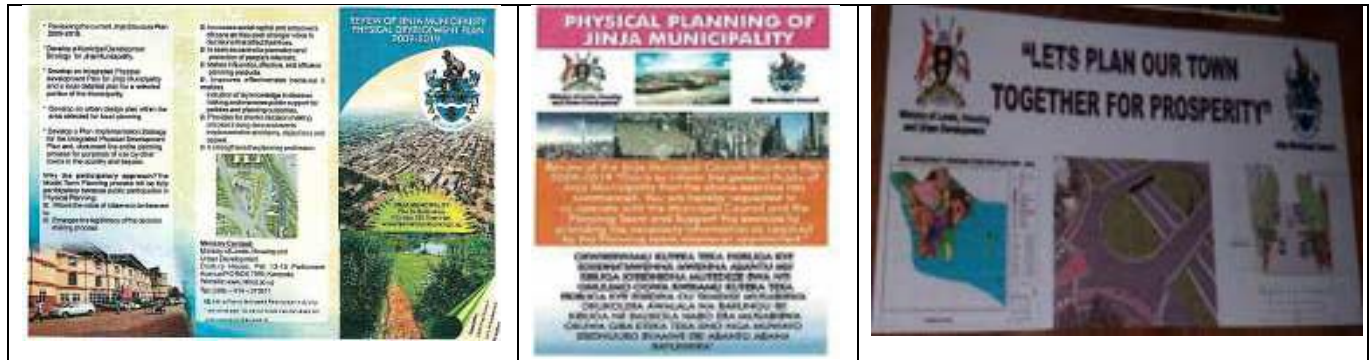
The PDP of Jinja City was prepared with two key principles in mind;

- i. The Integrated Development Planning approach. Physical Planning must be integrated with other plans especially the economic plans such as the Five-Year Development Plans and annual budget. Physical Planning should also integrate social and environmental aspects. The Jinja model city integrated planning process commenced with development of a Municipal Development Strategy (MDS). A MDS is an action-oriented plan for equitable growth and sustainability through public participation. The MDS provided for the vision of the city, mission, broad strategic objectives and SWOT. All these are critical aspects that were integrated with the PDP.
- ii. Participatory planning: Physical planning must be highly participatory involving a full range of stakeholders from the community. Consultative workshops and meetings were held in Jinja where a number of proposals were made by stakeholders. The engagements targeted stakeholders from both public and private sectors. Meetings were held with special interest groups especially landlords with immense parcels of land in the town and major institutions. Parish engagements were also conducted where stakeholders from communities were able to appreciate the planning process and provide their wish lists. The gatherings attracted the young, old, youth, male, female, PWDs and children since planning is a participatory process and involves every person in the community.

### 3.6.1. Methods of ensuring community engagement and public participation.

The Jinja model City planning process was highly participatory. A number of mechanisms were used to rally stakeholders including;

#### IEC materials.



*IEC materials used during the planning process.*

#### Parish engagements.

Meetings (barazas) were held in all the parishes within the Municipal Council and valuable information was got from the stakeholders through these meetings.



*Showing some of the meetings held at parish level.*

#### Meetings with special interest groups.

Some special groups of people were identified and consulted during this planning process. Separate meetings were organized for these stakeholders because they usually have sensitive information that they would not be comfortable disclosing in the midst of other people. Stakeholders that fall within this category are basically those with huge chunks of land in the planning area and other public and private institutions. Specifically, during the Jinja model city planning process, the special interest groups selected were; industrialists, Business community, slum dwellers, MDF representatives, Kyabazinga institution, NGO's and CSOs, Hotel and Tourism industry, transporters, Bugembe and Bubaga diocese, CAA,

SGR, utility companies (UNRA, NWSC, UETCL), DLB, Pentecostal and Uganda Railways.



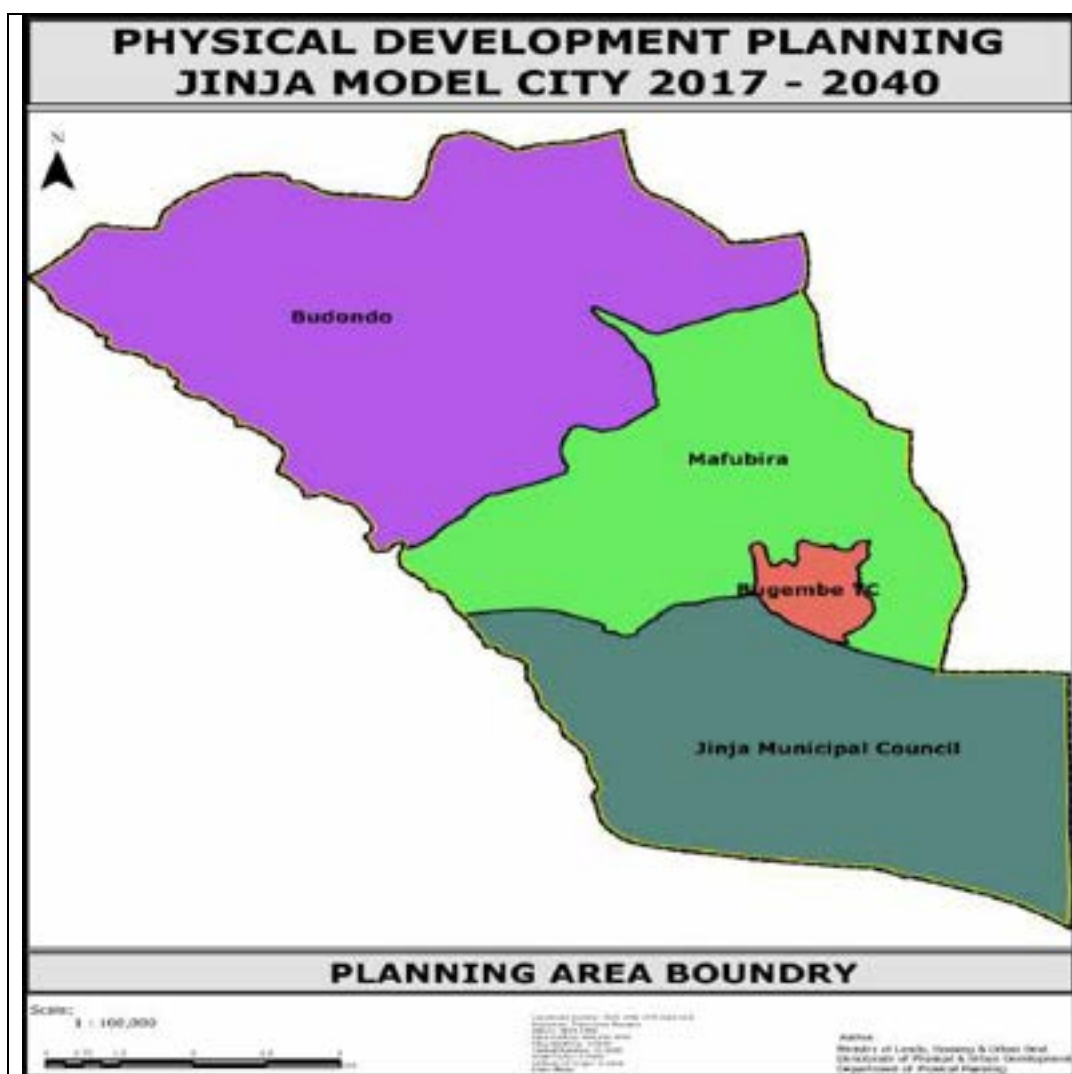
*Some of the meetings with special interest groups.*

There were also workshops where representatives especially political leaders from Budondo, Mafubira Sub counties and Bugembe Town Council were engaged. It should be noted that with the declaration of Jinja among the new cities, there was a general consensus to annex Bugembe Town Council, Mafubira and Budondo Sub counties onto the current Municipality to form the city boundary. Therefore, in order to bring onboard stakeholders from Bugembe TC plus the two sub counties, stakeholder workshops were held and stakeholders were sensitized and also taken through a mapping session where they made proposals that they felt the Physical Development Plan of Jinja city would consider.



*Evidence of stakeholder workshops.*

**Map 2: Showing the planning area boundary.**



Planning Area	Area Coverage			Acre
	Sq. Km	Hectares		
Bugembe Town Council	4.572	457.229		1129
Mafubira Sub-County	55.966	5596.626		1382
Budondo Sub-County	91.599	9159.891		2263
Jinja Municipal Council	63.494	6349.434		1568
<b>Total</b>	<b>215.632</b>	<b>21563.181</b>		<b>5328</b>

**3.7 Goals and objectives of the Jinja model city physical development planning process.**

Uganda has faced a number of physical planning challenges but the most prominent one is failure to implement the Physical Development Plans by Local Governments. This has been attributed to a number of factors, one of them being the processes followed when preparing the plans that leaves a lot to be desired. For example, some plans are prepared without consulting the communities, others have cartographic inaccuracies and such errors make implementation of the PDPs challenging. In order to enhance implementation of PDPs in urban areas, the Ministry of Lands, Housing and Urban Development (MLHUD) commissioned the preparation of a model Integrated Physical Development Plan (PDP) for Jinja Municipality with a goal to:

**“Prepare, through a highly participatory process, a Model Integrated Physical Development Plan for Jinja Municipality that will guide the orderly and sustainable development of the Municipality but most importantly, provide a model planning process for the other urban areas in the country.”**

Specific Objectives were;

- i) Guide the Municipality in reviewing the current Jinja Town Structure Plan 2009 – 2019 through assessing its level of implementation and understanding the issues that may have hampered its full implementation;
- ii) Guide the Municipality in preparing a Municipal Development Strategy on the basis of which an Integrated PDP and Local PDPs will be prepared;
- iii) Guide the Municipality in preparing an Integrated Physical Development Plan (IPDP) and a Local (Detailed) plan for their town. The latter will be for a Ward selected during the initial planning process;
- iv) Prepare a detailed urban design plan for a neighborhood within the Ward selected in (ii) above;
- v) Guide and spearhead the entire planning process from the very first stakeholder engagement to formal approval;
- vi) Moderate the process of formulating an implementation strategy for the Integrated Physical Development Plan.
- vii) Guide the Municipality in carrying out preliminary plan implementation activities in accordance with the implementation strategy.
- viii) Document the entire planning process with a view to providing learning experiences to be used by other urban areas in Uganda.



### **3.8 Key issues from the stakeholder engagements.**

From all these stakeholder engagement mechanisms, the planning team was able to gain a lot of valuable information from a wide range of stakeholders within the planning area. The following are some of the proposals or wish lists from the stakeholder engagements categorized according to thematic areas as below;

#### **Governance and Institutional set-up.**

- Come-up with a holistic approach for dealing with land issues in Jinja Municipality, especially protecting public land like land owned by Uganda Railways Cooperation from encroachment.
- Prepare by-laws and policies on physical planning.
- There is need for clear standards to regulate the distance between the churches.
- There should be a policy to regulate tanneries because they produce foul smell which pollutes the city.

#### **Tourism**

- Development of Source of the Nile should be prioritized in order to improve the tourism sector.
- Crested Crane School should be redeveloped. This is a tourist school that needs to be supported in order to uplift the sector.
- More hotel facilities should be developed around the Source of the Nile.
- Need to develop a road network along the Bank of River Nile.
- There is need to preserve some old features like the traditional architectural designs on buildings in order to promote tourism.
- Preservation of heritage. Kingdom area, market area, old buildings that have Indian architecture, religious institutions like Bugembe cathedral, Rubaga catholic church, Indian temples, the born-again church at Kamagwa. Preserve Busoga Lukiiko.
- Development of a tourism information Centre.
- Preserve and develop tourist attractions like the new bridge, the source of the Nile, the central market, the industries, the islands like Kisima, the Pier in Masese, Busoga square, the culture of the Basoga, the hills like Mpumudde, Kirinya etc., the kingdom headquarters, the campsites, agricultural show ground, Kimaka airstrip, the cultural heritage like Bujagali in Budondo.
- Development of the former Rippon port and a port in Masese.
- Plan for a monument of a rhino on the island in the Conner of main street primary school and Eng. Zikusoka way. This will give Jinja a face look like the cow monument in Mbarara.

### **Industrial development.**

- Jinja is still referred to as the Industrial city of East Africa and therefore the PDP should take cognizance of industrial development and revival as one of the key interventions that will lead to development of the city.
- Big chunks of land should be earmarked in the PDP for the steel and tube industry and other heavy industries. Jinja should be known for production of steel. Such industries require big chunks of land (a minimum of 100 acres).
- Create a second industrial park in Budondo due to the availability of space.

### **Infrastructure and utilities.**

- Flyovers and ring roads should be planned in order to decongest the city.
- The service lanes in the Municipality were closed and others have no adequate lighting which causes insecurity in the town.
- Need for a fully-fledged university in Jinja. The Catholic Church has land which can accommodate the university.
- There is need to prepare drainage masterplans in the Municipality.
- Proposed stadiums are; Bugembe stadium, Lt. Dhaira Stadium, Kakindu stadium, stadium at Buwagi in Budondo.
- University at Buyala in Budondo due to the presence of land and the only area without an institution.
- Extend the power grid to the areas of Budondo.
- There is only one water treatment plant serving the municipality and Iganga. One reserve at Rubaga hill. A reserve should be proposed in Budondo.
- Proposal for a composite plant in Budondo and a sewage lagoon in the same area.
- Cemetery in Budondo.
- Propose a road from Ambercourt to Kamuli.
- More government schools especially in Mafubira and Budondo
- Every city ward should have a vocational school.
- Establish libraries in every city ward.
- Hospital in every Division.
- Every City cell should have a Health Centre III.
- Health Centre IV in every ward.
- Jinja Hospital and Nalufenya children hospital should be upgraded to referral hospitals.
- Every city ward should have a community centre.
- Sewage lagoons at Namizi- Budondo and Wanyange- Bugembe Town Council.
- Landfill in Kibibi- Budondo.
- Propose a road from Walukuba-Masese and then back to the CBD.
- Extend the railway line beyond Budondo.



- Parking yards in the city to ease communication and movement in the city.
- Power dam in Bususwa-Budondo.
- While planning, Kimaka air strip close should be joined with Bewayo road for easy connectivity.
- Plan for an alternative road from Kimaka B-Kimaka bypass connecting from the lagoons
- Plan for a road on just the boundary of the air strip and the senior staff command connecting to Kimaka B.
- Plan for a road below Guardian Primary School connecting from Budondo road to Kimaka By pass.
- Open and connect Malcon road such that Mpumudde seed secondary school can be accessed.
- Plan for public toilets like around Jinja Mpya.
- Provide an access road from Mvule crescent to Kyabazinga way and from Mvule crescent to acacia road.
- Propose heavy traffic roads like around Nile ply connecting to Walukuba road.
- Improve on water transport by having a ship from Masese to Tanzania.
- Public toilets in Kisiima 1 and II Islands.
- Open Gadaffi – Kimaka by-pass.
- Propose vocational schools in Old Boma.
- Plan for a health centre in Kisima II.

### **Local Economic Development.**

- The PDP should strongly take cognizance of the urban poor. A market should be proposed in Walukuba.
- Take advantage of the new bridge for hotels. Develop beaches along Lake Victoria.
- Taxi and bus terminal in central division.
- The Municipality has access to markets, but there is need to improve them.
- Need for a bus terminal at Kyabazinga way near the police barracks.
- The market at Abercourt be expanded and relocated to Budondo.
- Plan for a market in Nalufenya B.
- Gabula road should be changed and gazetted from residential to commercial or mixed use (residential-commercial).
- Change some residential areas like Gabula, Iganga Road, Gohkale Road West, Clive Road West, and Kutch Road West and Nizam Road West into commercial use or mixed use. Since the town is developing so fast.
- Plan for a community development centre in Masese.

- Plan for a modern market in Soweto.

### **Housing and settlements.**

- Majority of the population who work in Jinja, reside in Bugembe hence being a dormitory town. Therefore, some low-cost housing can be proposed in Bugembe to cater for the increasing demand for housing.
- Slum upgrading should also be given attention for example Walukuba estate which was initially an organized settlement has since been turned into a slum that is not appealing to the eye.
- Plan for a residential estate in kipamba and water village.

### **Environmental sustainability.**

- Promote use of Solar street lights.
- Promote environmentally friendly energy sources like brickets, biogas other than charcoal.
- Buffer all water bodies.
- All swamps should be protected. Trees should be planted around the swamps.

### **Recreation**

- Recreation centers along the banks of the river.
- Maintain the proposed leisure park on kyabazinga way (Tirupati).
- Maintain Rippon gardens and all other open spaces in town like Nile garden and hajji Tamach.
- The gardens like Rippon and Nile garden should be developed with security measures since they are not secure at night.
- Plan for beaches on the islands.
- Provide an open space in Rubaga.

## **3.9. Projecting possible features for Jinja city.**

This segment of the planning process aims at figuring out what futures are possible for the city. It answers the question- “*Where can we go?*” and therefore addresses the question of feasibility. It helps the planner to make planning proposals that are feasible.

There are three related techniques used to determine what is feasible and these include; opportunity and constraint analysis, strength and weakness analysis and the issue identification. In order to determine the future prospects of Jinjacity , an analysis of the opportunities and constraints affecting the city was conducted. The process of conducting an opportunity and constraint analysis during this planning process was highly participatory. It should be noted that the Jinja model city physical development planning process is integrated in nature and it started with development of a Municipal Development

Strategy (MDS) for the Municipal Council. The MDS is a strategic plan that provides a long-term vision for the City. The MDS also provides a detailed SWOT that was developed in a participatory manner. Therefore, some of the aspects in the table below were extracted from the SWOT in the MDS of Jinja.

**Table 3-1 Opportunities and constraints to development in Jinja City.**

<i><b>Opportunities</b></i>	<i><b>Constraints</b></i>
○ Strategic location of the city. The city is located along major water bodies- River Nile and Lake Victoria.	○ Air pollution due to use of unsustainable means of transport.
○ Availability of fresh water bodies- River Nile and Lake Victoria.	○ Water pollution which has resulted into poisoning of the fresh water bodies.
○ Availability of fertile soils that can support agriculture.	○ Poor road network and storm water collection systems.
○ Favorable climatic conditions. Temperatures range between 20°C-30°C with two rainy seasons annually.	○ No efficient rail transport in the area to support industrial developments.
○ Presence of other natural resources like wetlands, hills and forests.	○ Climate change
○ Proximity to Kampala.	○ Periodic power blackouts and water shortages affect industrial development.
○ Existence of fresh water supply, treatment and distribution systems.	○ Land tenure system.
○ Existence of utility companies like NWSC and UMEME.	○ No alternative energy sources to supplement on Hydro Power.
○ Availability of fire and police stations.	
○ Availability of market for locally produced products.	
○ Availability of land especially in Budondo that can support industrial development.	
○ Presence of good private shopping, health and cultural facilities.	
○ Capacity by the city to levy and collect taxes.	

○ Availability of skilled labour force.	
○ Many NGOs that provide different services to the citizens	
○ Easy and direct access to the Coast of Mombasa & Kisumu in Kenya and TZ respectively.	
○ Proximity to the Hydro Electricity Power Source.	
○ Proximity to the railway line	

## CHAPTER 4. EXISTING CONDITION ANALYSIS.

The previous chapter probed the process of plan making highlighting its intricacies and complexity. This process was the backdrop which informed the current chapter. This chapter provides a detailed analysis of the existing situation where service gaps are established. These gaps are further analysed using population projections to establish the need to provide more services in specific locations.

It is important to understand where you are before you plan for the future. It is the same case with preparing a Physical Development Plan. Understanding the current condition of the area being planned is key and can only be achieved through undertaking an existing situation analysis. Under the Jinja model city physical development planning process, the practical aspects that were analysed to understand the existing condition include; population, housing, economy, land use, environment, circulation and transport, health and sanitation, community facilities and services, education, industry and manufacturing plus tourism and cultural heritage.

### 4.1. Population.

The very first question one asks about a community including a planner is how big it is, usually meaning, how many people live there? To get an answer to this is to find out the population of the area. In this regard, the total population of Jinja City is **247,074 people**. Mafubira Sub County has the highest population followed by Jinja Municipal Council and Bugembe Town Council has the least population as shown in the table below. However, in terms of population density, Bugembe Town Council has the highest density followed by the Municipality and Budondo Sub County has the lowest density.

**Table 4-1: Population Distribution.**

Sub county	Sex		Population.	Land area (sq.kms)	Pop. Density
	Male	Female			
Jinja Municipal Council	38,167	38,021	76,188	63.494	1,200
Bugembe Town Council	19,751	21,956	41,707	4.572	9,122
Budondo Sub county.	24,552	25,956	50,508	91.599	551
Mafubira Sub County	37,623	41,048	78,671	55.966	1,406
<b>TOTAL</b>			<b>247,074</b>	<b>215.631</b>	<b>12,279</b>

**Source: UBOS 2014, National Population and Housing Census.**

The table above further shows the population pressure on land as the population increases at a growth rate of 5.0%. Often population pressure on land leads to encroachment on environmentally sensitive areas which can only be protected.

### **Population growth and size.**

Understanding population dynamics of a given community is a foundation of any physical Planning intervention. The Population growth trajectory for the proposed Jinja city is two tiers i.e. the first projection is from 2014-2020 and the second tier is from 2022-2032 tied alongside Uganda's Vision 2040. However, one should remain mindful that these projection estimates take cognizance of variables influencing population change i.e. demographic conditions, socio-economic conditions, transport accessibility among others. The Projection formula is; -

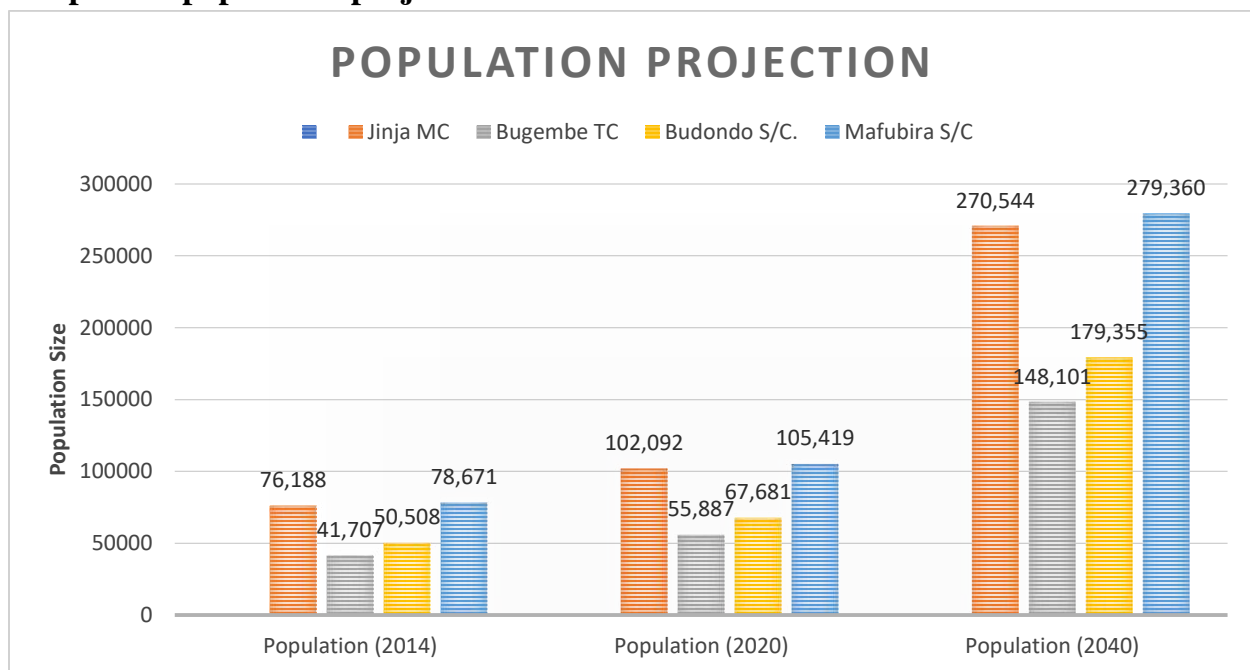
$$P_t = P_o (1+r \%)^t$$

Where;  $P_o$  = Initial Population,  $P_t$  = Population,  $t$  years later,  $r$  = Annual Growth rate = 5.0 %,  $t$  = Number of projection years

**Table 4-2: population projections.**

<i>Administrative Units</i>	<i>Population (2014)</i>	<i>Population (2020)</i>	<i>Population (2040)</i>
<i>Jinja MC</i>	76,188	102,092	270,544
<i>Bugembe TC</i>	41,707	55,887	148,101
<i>Budondo S/C.</i>	50,508	67,681	179,355
<i>Mafubira S/C</i>	78,671	105,419	279,360
<b><i>TOTAL</i></b>	<b>247,074</b>	<b>331,079</b>	<b>877,360</b>

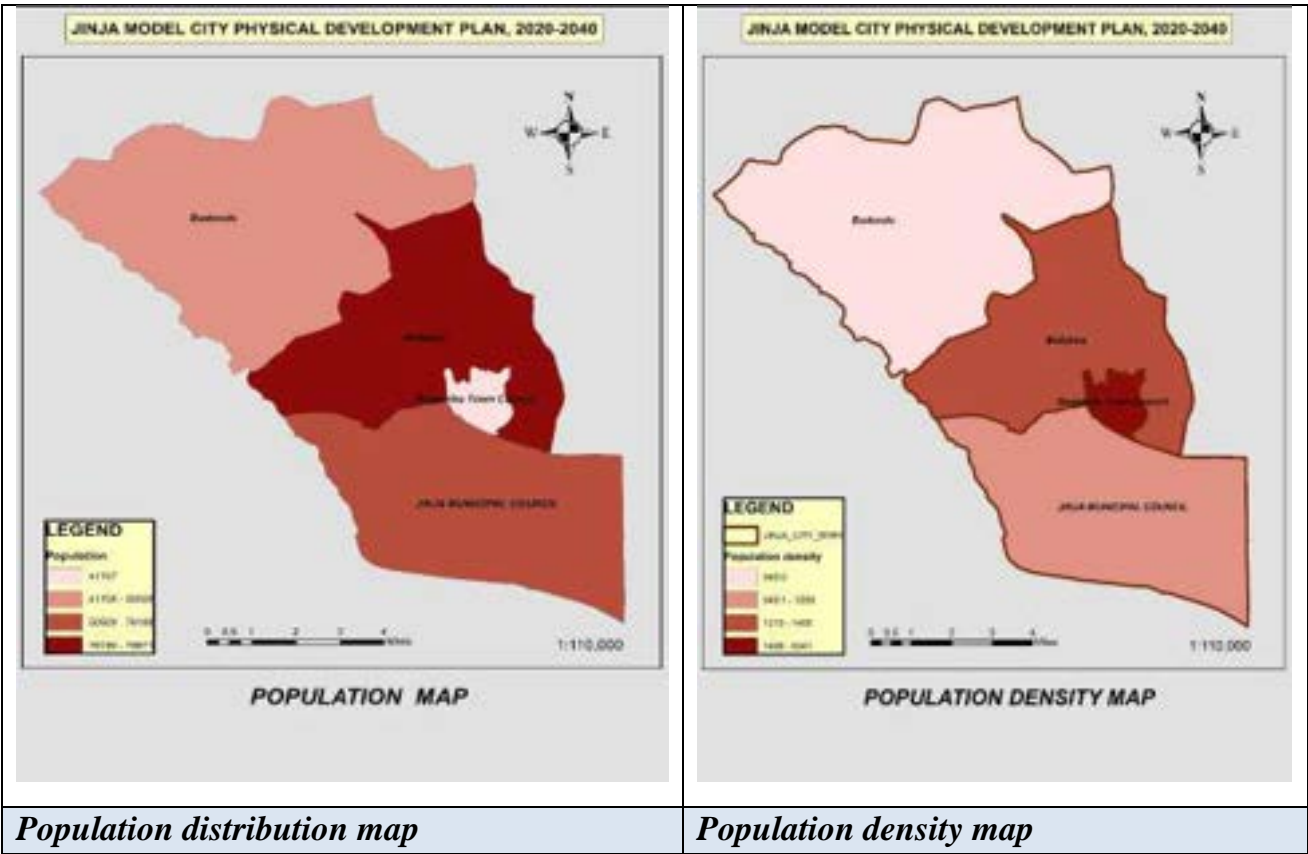
**Graph 4-1: population projections.**



**Figure: Projected Population growth from 2014, 2020 up to 2040**

The figure above indicates projected population growth from 2014, 2020 up to 2040 of the proposed administrative boundaries of Jinja city at a population growth rate of 5.0%. As indicated, the population will triple from the current projections of 2020 to 2040 in all the administrative units that comprise the proposed Jinja city. Mafubira S/C and the current Jinja MC will have higher population as compared to Bugembe TC and Budondo S/C.

**Maps 4-4: Showing population distribution and density.**



As shown in the above maps, Mafubira Sub County has the highest population followed by Jinja Municipal Council, Budondo Sub County and Bugembe Town Council has the least population. However, in regard to population density, Bugembe Town Council has the highest density followed by Mafubira Sub County, Jinja Municipal Council and Budondo Sub County is the least densely populated.

**4.2. Housing.**

Housing is a key factor in the development of an area and it is also a basic need that every person requires. Similarly the National Housing Policy provides for adequate housing for all categories of people across the country bearing in mind the social-economic status. Housing has an impact on the standards of living of people. In Jinja most of the households are constructed using permanent materials, approximately 70% of the households are constructed with permanent walls, 98% of housing units are roofed with permanent materials and approximately 70% of the housing units have permanent floors. The average household size is 3.6 (UBOS, 2014).

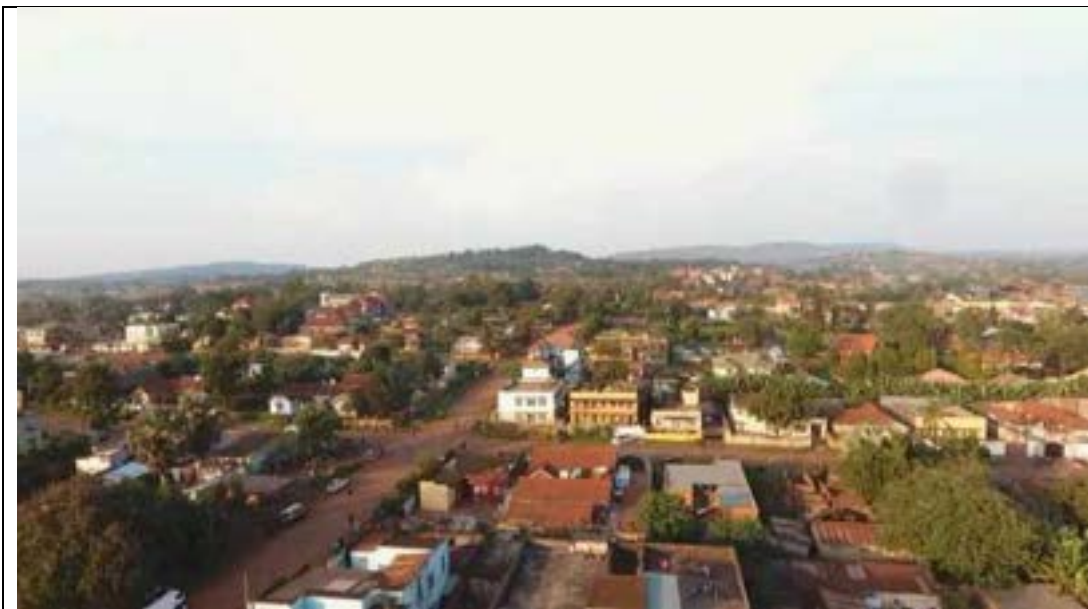


*Some of the existing houses in Jinja.*

From the field observations, within the CBD a number of buildings have Asian designs and these were developed in the 1950s when a large number of Asians settled in Jinja. Most of these buildings are dilapidated since minimal renovations have since been undertaken due to the absentee nature of the landlords.

There are a number of upcoming residential apartments in the suburbs due to the increasing population in the town. However, the real estate developments in Jinja are still at the infant stages to support the increasing housing demand.

There are a number of high-density residential developments especially in the Southern part of the city. Throughout the city, most of the residential settlements are following a linear pattern of development mainly following roads as shown in the map below.



*Linear pattern of development in Jinja.*



**Map 4-5. Showing the settlement pattern in Jinja.**





### **4.3. Economy.**

One of the key goals of any Physical Development Planning effort is to ensure economic development and diversification. Analyzing the economic trends of the area being planned provides a good benchmark for making good proposals and policies in the PDP that can enhance economic development. It is important to note that economy drives most of the employment trends for the community and the employment trends drive demand for housing, recreation, transportation and private commercial development and other amenities. Understanding the economic dynamics of the area being planned can be achieved through analyzing data on the economic aspects of the community for example income distributions, poverty thresholds and employment patterns. Jinja was built as an industrial center and a number of industries were established since 1960s. However, with the recent government policies like liberalization and privatization of the economy, Jinja lost its economic advantage to Kampala. However, many of the industrial buildings have been rehabilitated and new industries built in Jinja. Industries are a major source of employment to the people of Jinja and it is estimated that about 3000 persons are employed by these industries. Some of the functional industries are; BIDCO, Steel Rolling Mills at Masese, Kakira Sugar Works, Nile Agro processing among others. The current NDP III

repositions Jinja as an Industrial and Tourism city which will be a spring board to spur social economic development through job creation.

Other sources of income in Jinja are; agriculture and this is dominated by small-scale agriculture and animal husbandry. Approximately 10% of the population in Jinja Municipality depend on subsistence farming, 3.5% of the working population in Bugembe depend on subsistence farming, 25% and 73% of the population in Mafubira and Budondo respectively also depend on subsistence agriculture. Major crops grown are sweet potatoes, cassava, beans, sorghum, groundnuts and soya beans. A large portion of the population grows cash crops especially sugarcane and coffee whereas others are engaged in fish farming. However, most cash crop farmers till all their land at the expense of food crops hence leading to food insecurity in most of these households.

There are also a number of commercial activities especially in the Central Business District (CBD) and these include markets, supermarkets, wholesale and retail shops, commercial institutions, service shops, workshops and garages among others. The biggest concentration of commercial activities is along the taxi/bus Park, central market and Main Street. Therefore, the economy of Jinja is dominated by commerce followed by the service sector, industry, construction and then agriculture. In terms of employment, the table below summarizes the employment status of people within the Jinja City.

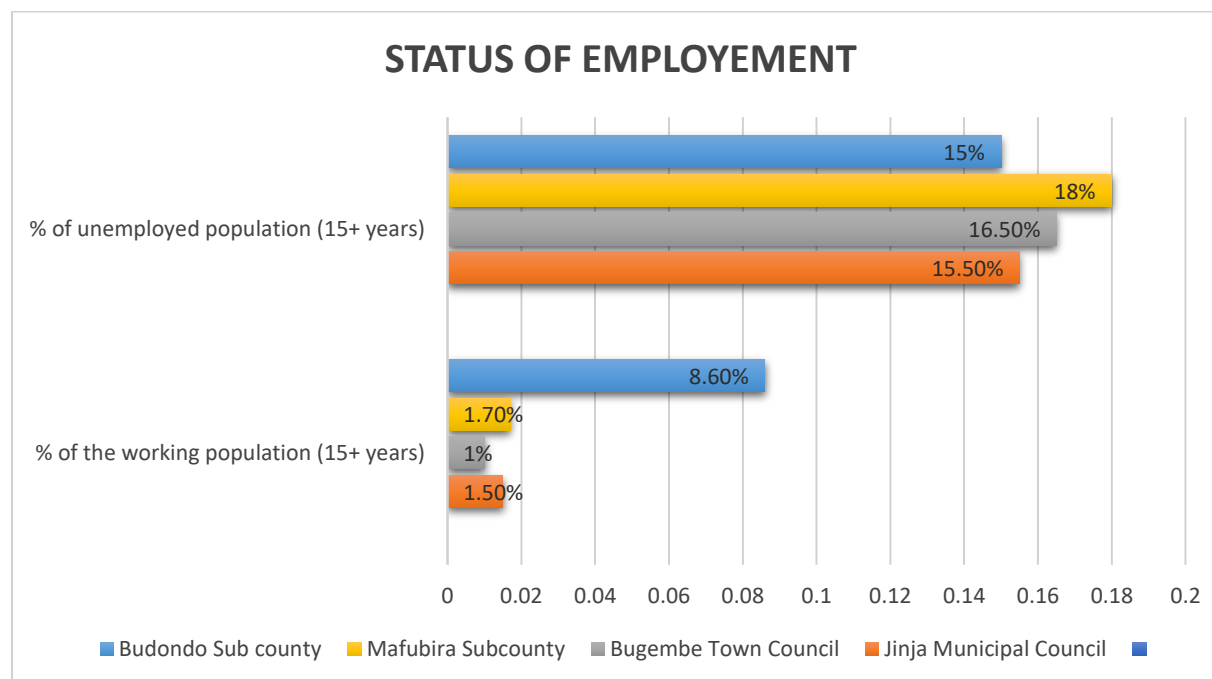
	
<i>Some of the Existing industries</i>	<i>Existing commercial centre</i>

**Table 4-3: showing the employment patterns.**

Entity	15+ years		Total population	% of the working population (15+ years)	% of unemployed population (15+ years)
	Working	Not working			
Jinja Municipal Council	1,134	11,806	76,188	1.5	15.5
Bugembe Town Council	416	6878	41,707	01	16.5
Mafubira Sub County	1,341	14,426	78,671	1.7	18
Budondo Sub county	4,342	7,537	50,508	8.6	15
<b>TOTAL</b>	<b>7,233</b>	<b>40,647</b>	<b>247,074</b>	<b>12.8</b>	<b>65</b>

*Source: Jinja District.*

**Graph 4-2: Employment patterns.**



The statistics above indicate that a bigger percentage of the persons above the age of 15 years in Jinja are not employed and this has a negative impact on the economy since most of these are able bodied youth. There are a number of sectors where people are employed in Jinja but the informal sector employs majority of the population. Other sectors that employ the population are; commerce, agriculture, service provision and industry. The high numbers employed in the informal sector indicate a challenge in revenue sources since

these sectors are not registered and therefore the local authority encounters challenges in generating revenue through taxation on the informal sector. This eventually portrays challenges in service provision since the majority population in the informal sector don't pay tax to the authority.

#### 4.4. Tourism and cultural heritage.

Jinja has a number of tourist and cultural sites. Some of the tourist sites in Jinja Municipal Council are; Large stone, a feature from which the name Jinja was derived, Kyabazinga's Palace in Buganda, Igenge Hills where traditional practices like "obulombolombo" are carried out, Mpumudde Hill where the coronation of the Kyabazinga takes place and also where Omukama Kabalega died, Nabamba shrines next to Bujagali falls. Jinja city is the second town in East Africa to have a Cable stayed (suspended) bridge after the Kigamboni Bridge in Tanzania and many more historical figures whose monuments could attract more tourists in Jinja.

**Map 4-6. Showing tourism areas.**





There is a strong potential under the tourism industry of Jinja and therefore the PDP has proposed interventions for ensuring prosperity in the tourism sector.

**Some of the tourist sites in Jinja.**



*Source of the Nile*



*Jinja Sailing Club, Nile Crescent*



*Kyabazinga palace.*

#### **4.5. Land use.**

Assessing the current land use is an important aspect of a Physical Development Planning process. The best way of representing the existing land use of a community is by preparing a land use map. Jinja as a highly developing town has a number of land uses that are categorized broadly on the land use map shown below as follows; commercial, residential, industrial, institutional, civic and agricultural use among others. Residential use is categorized into three categories according to density; high, medium and low density.

In some parts of the town there is a transition from one land use to another. The residential land use is invaded by the commercial use as a result most initially purely residential areas in the town are turning into commercial or civic/office spaces.

The land uses are further described below in detail:

##### *Residential use:*

Suburbs like Bugembe and Mafubira are predominantly dormitory towns with high demand for residential apartments since the apartments in the town center are few but also expensive. There are a number of areas that have mixed uses especially in the CBD where the shops at the front are used for commercial purposes while the back space is used for residential purposes. Similarly, in peri-urban areas, there are residential and agricultural uses where it is difficult to ascertain the majority land use hence a mixed use.

The residential houses vary according to income levels. In some neighborhoods the settlements are crowded with poor access, drainage facilities portraying slum settlements. These are common in the areas of Bugembe – Budhumbuli, Jinja – Masese.

There are a number of upcoming developments for residential apartments which are mainly in the suburbs of Mafubira and Bugembe.

##### *Commercial land use.*

The central business district (CBD) is located in Jinja. The CBD like others is characterized by shops dealing in various merchandise. However, the CBD is also characterized with mixed uses thus shops with residential uses, offices with shops/ residential. Most of the shops in the CDB still follow the Asian designs with only a few shopping malls and arcades consisting of multiple shops.

There are several upcoming local centres in Bugembe and Mafubira which supply the local population with general goods and services.

##### *Industrial land use*

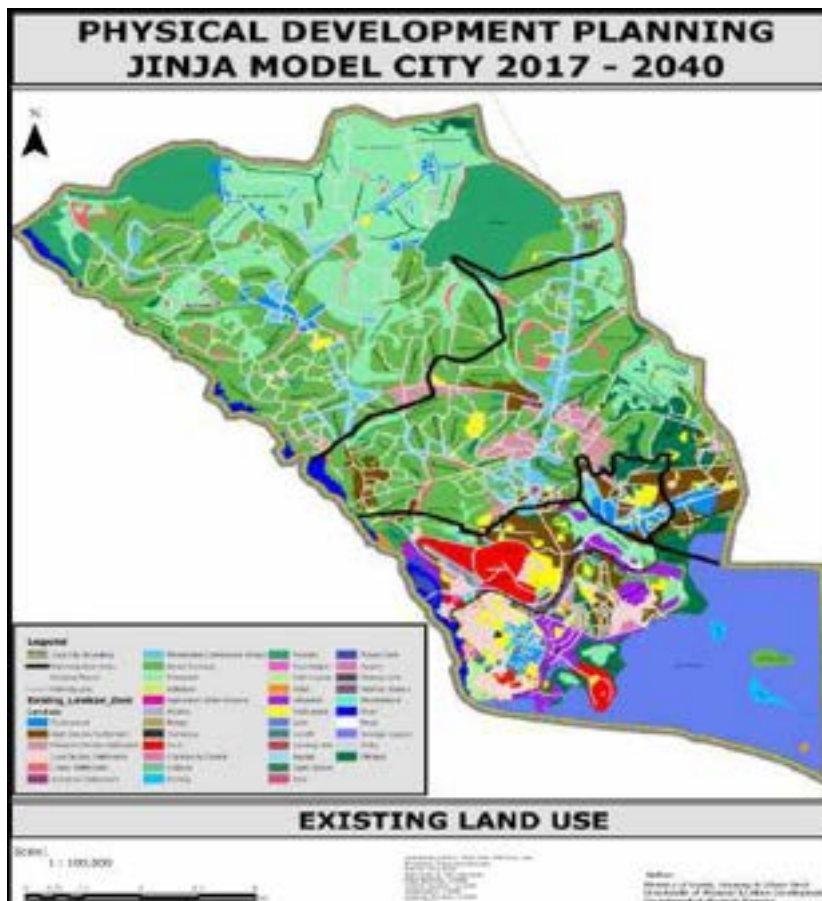
Jinja having been once an industrial town of Uganda, the town still has some existing industries within Jinja town.

The land uses are represented by standard colours obtained from the National Physical Planning Standards and Guidelines 2011.

A key consideration when analyzing the existing land use is an assessment of the existing parks and open spaces. It is important to understand the coverage of existing open spaces in the community and assessing whether they are sufficient for the population. Another important consideration when mapping parks is assessing their level of connectivity to one another and whether there are good access roads and pedestrian routes between the parks and homes. Green spaces are places for social cohesion which is a strong aspect for every urbanizing area. Due to the tourism nature of Jinja city there are a number of green recreational facilities. Unfortunately, a limited number of these facilities are accessed without an entrance fee by the public.

There was a noticeable existence of vacant land especially in neighborhoods which portrays a potential for infill development.

**Map 4-7: Existing Land use map.**



**Table 4-4: Existing land uses in the city.**

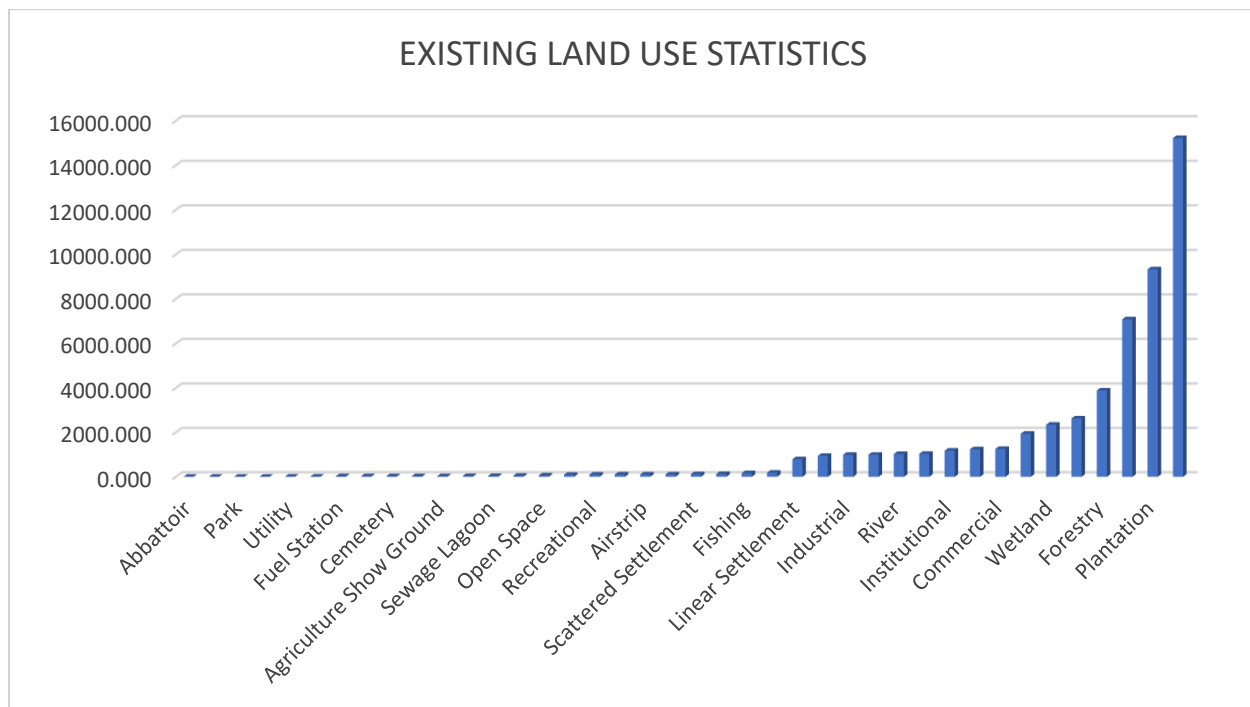
Item	Land use	Area		
		Acres	Hectare	Sq. Km
<b>1</b>	Abattoir	0.761	0.308	0.003
<b>2</b>	Community Centre	2.227	0.901	0.009
<b>3</b>	Park	3.734	1.511	0.015
<b>4</b>	Bridge	3.831	1.550	0.016
<b>5</b>	Utility	7.515	3.041	0.030
<b>6</b>	Landing Site	8.499	3.439	0.034
<b>7</b>	Fuel Station	22.714	9.192	0.092
<b>8</b>	Market	24.189	9.789	0.098
<b>9</b>	Cemetery	25.199	10.198	0.102
<b>10</b>	Landfill	25.325	10.249	0.102
<b>11</b>	Agriculture Show Ground	26.397	10.683	0.107
<b>12</b>	Cultural	27.379	11.080	0.111
<b>13</b>	Sewage Lagoon	34.788	14.078	0.141
<b>14</b>	Quarry	44.580	18.041	0.180
<b>15</b>	Open Space	61.369	24.835	0.248
<b>16</b>	Railway Station	90.913	36.791	0.368
<b>17</b>	Recreational	98.030	39.671	0.397
<b>18</b>	Golf Course	103.605	41.927	0.419
<b>19</b>	Airstrip	105.089	42.528	0.425
<b>20</b>	Hotel	107.321	43.431	0.434
<b>21</b>	Scattered Settlement	113.711	46.017	0.460



<b>22</b>	Power Dam	128.183	51.874	0.519
<b>23</b>	Fishing	161.668	65.425	0.654
<b>24</b>	Railway Line	186.537	75.489	0.755
<b>25</b>	Linear Settlement	788.814	319.222	3.192
<b>26</b>	Low Density Settlement	939.462	380.187	3.802
<b>27</b>	Industrial	989.164	400.300	4.003
<b>28</b>	Civic	992.366	401.596	4.016
<b>29</b>	River	1025.196	414.882	4.149
<b>30</b>	Road	1032.755	417.941	4.179
<b>31</b>	Institutional	1177.270	476.424	4.764
<b>32</b>	Medium Density Settlement	1237.598	500.838	5.008
<b>33</b>	Commercial	1256.196	508.365	5.084
<b>34</b>	Residential-Commercial Mixed	1939.539	784.903	7.849
<b>35</b>	Wetland	2342.607	948.019	9.480
<b>36</b>	High Density Settlement	2626.625	1062.958	10.630
<b>37</b>	Forestry	3882.859	1571.337	15.713
<b>38</b>	Lake	7083.213	2866.475	28.665
<b>39</b>	Plantation	9328.187	3774.983	37.750
<b>40</b>	Mixed Farming	15228.364	6162.700	61.627
	Total	53,283.780	21563.181	215.632

To further understand the existing land uses in Jinja, team prepared an existing land use map was prepared using various datasets. The smallest land use is the abattoir covering 0.001% of the total land. The largest land use activity is mixed farming which covers about 28.580% of the total land as shown in the graph below.

**Graph 4-3: Existing land use.**



#### **4.4.1. Existing land cover.**

Land cover indicates the physical land type such as forest or open water. There about six (6) land cover types in Jinja City. These include

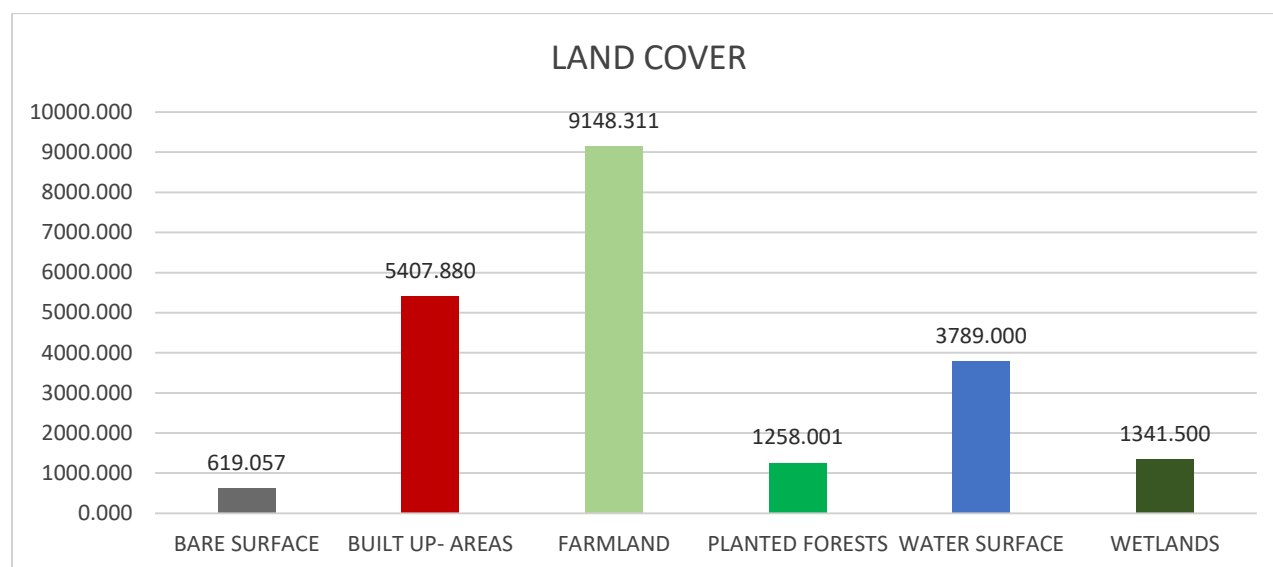
- i. Forests
- ii. Farms & Gardens
- iii. Wetland
- iv. Bare Surface
- v. Built-Up Areas
- vi. Water Surface

**Map 4-8: Existing land cover map.**



Farmland covers most of the city land (42.42%) while the least land coverage is bare land. (2.87%) as shown in the figure below.

**Graph 4-4:** *showing existing land cover in Jinja city.*



#### 4.4.2. Built-up vs unbuilt-up environment.

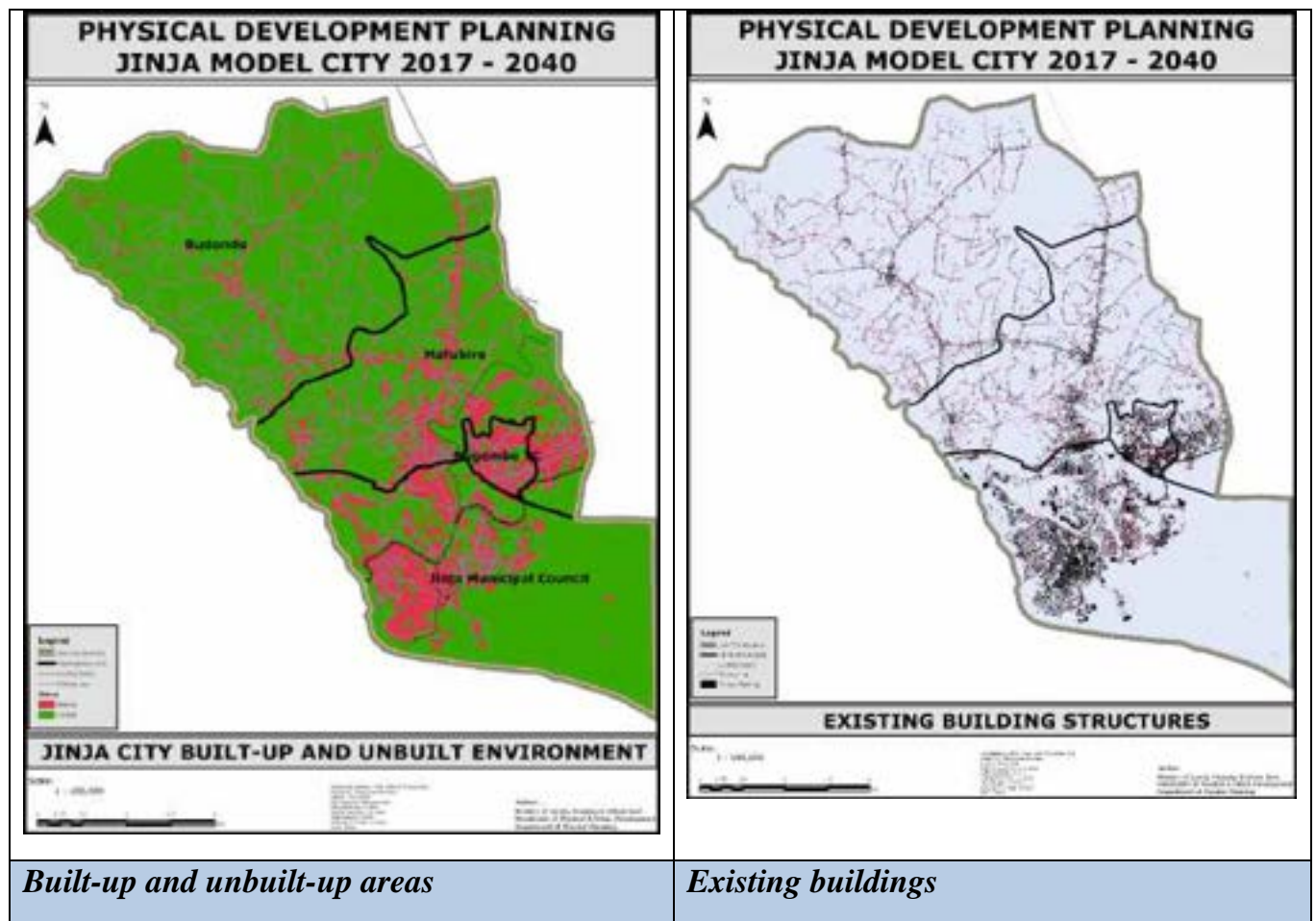
About 17.942% of total land within the City is built whereas 82.058% is un built. Water bodies (L. Victoria, R. Nile & Swamps) are also part of the unbuilt up land. The southern part is heavily built. It should also be noted that 90% of the building structures follow a linear pattern alongside access roads. These buildings take on different types depending on the use.

**Table 4-5: Statistics of the built-up vs unbuilt-up environment.**

No.	Status	Area			
		Sq. Km	Hectares	Acres	Percentage
1	Built-up	38.689	3868.883	9560.217	17.94207784
2	Un-Built	176.943	17694.298	43723.562	82.05792216
	<b>Total</b>	<b>215.632</b>	<b>21563.181</b>	<b>53283.780</b>	<b>100</b>

The maps below show the built and unbuilt-up areas plus the existing buildings within the city.

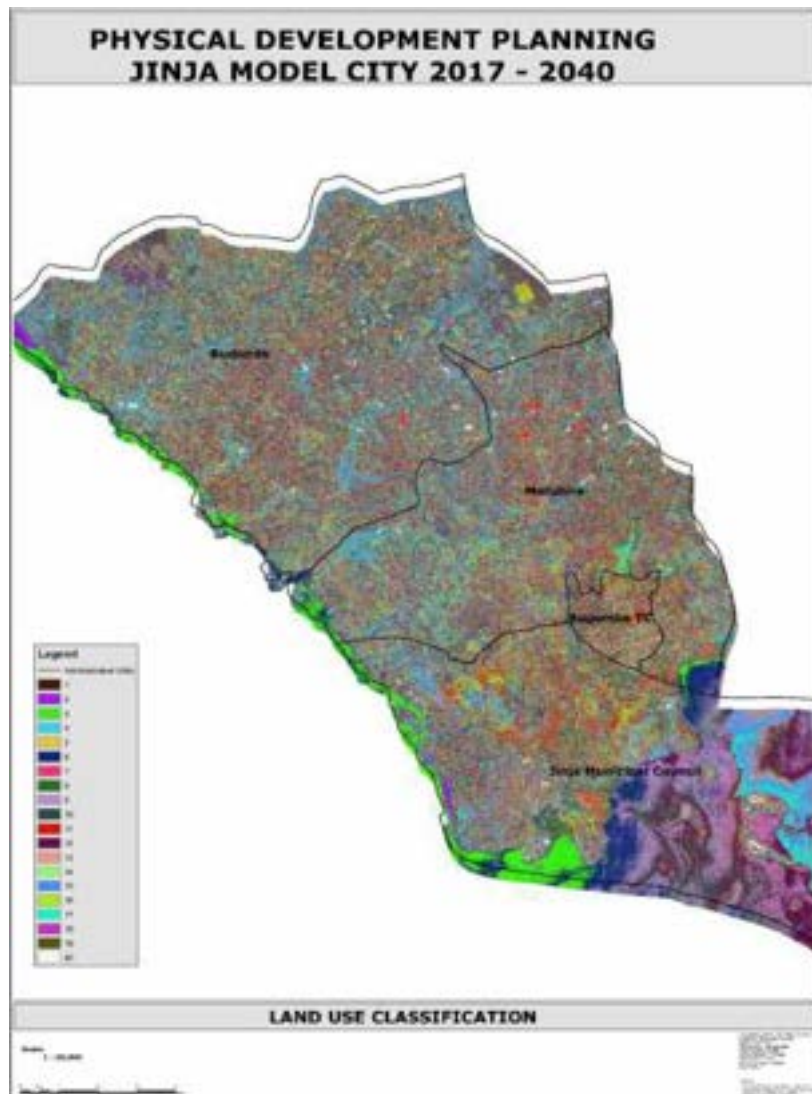
**Maps 4-9: Built-up and unbuilt-up areas and existing buildings.**



#### **4.4.3. Land use classification.**

Using the orthophoto of the planning area, a land use classification was undertaken and according to the map below, it was evident that there was a lot of unordered development in the city. The map also depicts Lake Victoria with so many shades of colour which implies that there was a lot of contamination otherwise it should have been represented with one colour if it were pure water.

**Map 4-10: Land use classification.**



#### **4.5. Natural environment.**

Information on environment is important for physical planning because it gives an indication of the areas that are suitable for development and those areas where development should be restricted. Basic environmental information relevant for planning includes soil types, slope, vegetation, wetlands and water bodies.

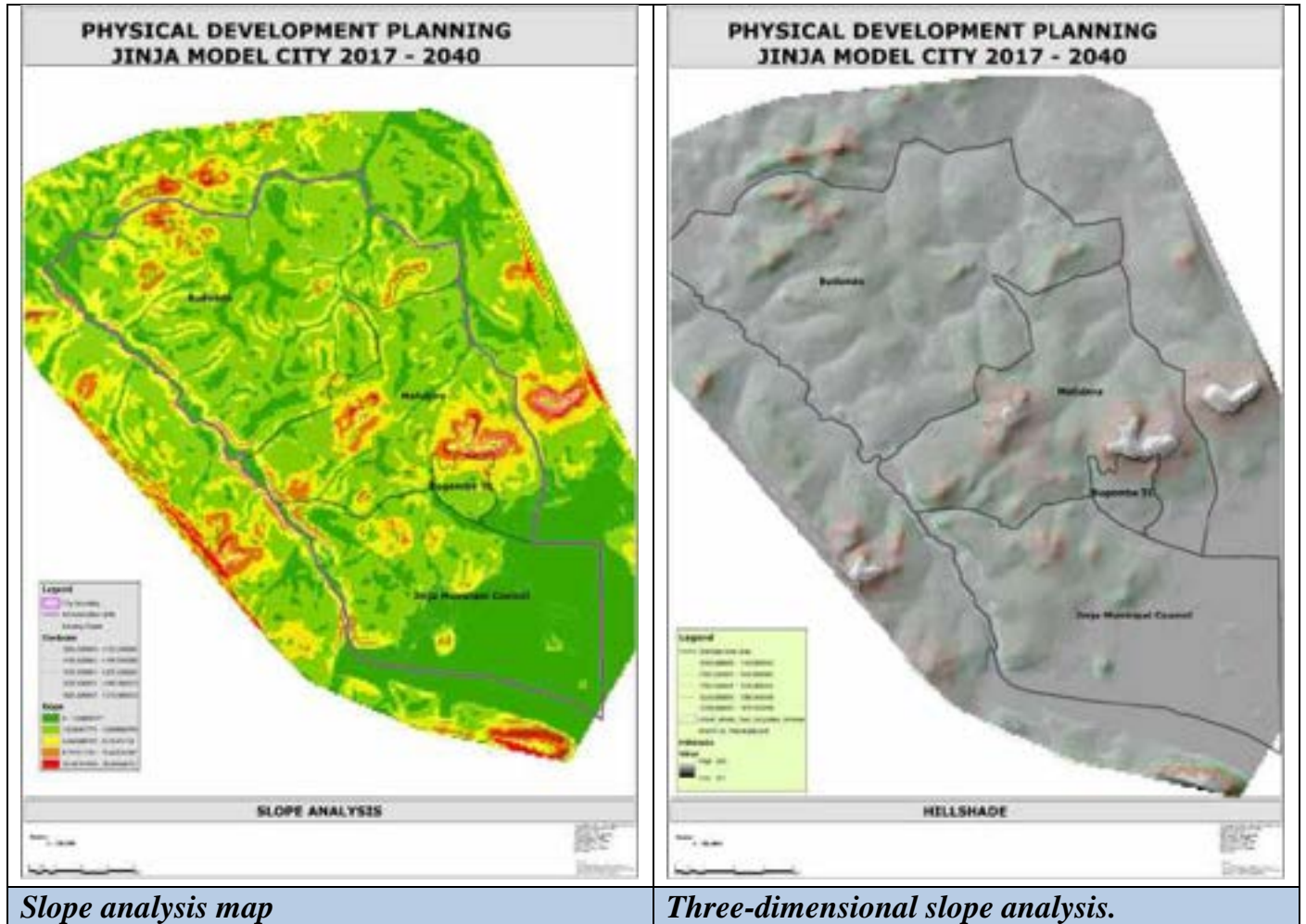
##### **4.5.1. Relief and climate.**

Jinja City is relatively flat characterized with isolated hills and adulating lowlands. The prominent hills include Igenge hill in Bugembe Town Council, Butiki and Wanyange hills in Mafubira Sub County. The maps below show an analysis of the slope of Jinja City. Areas



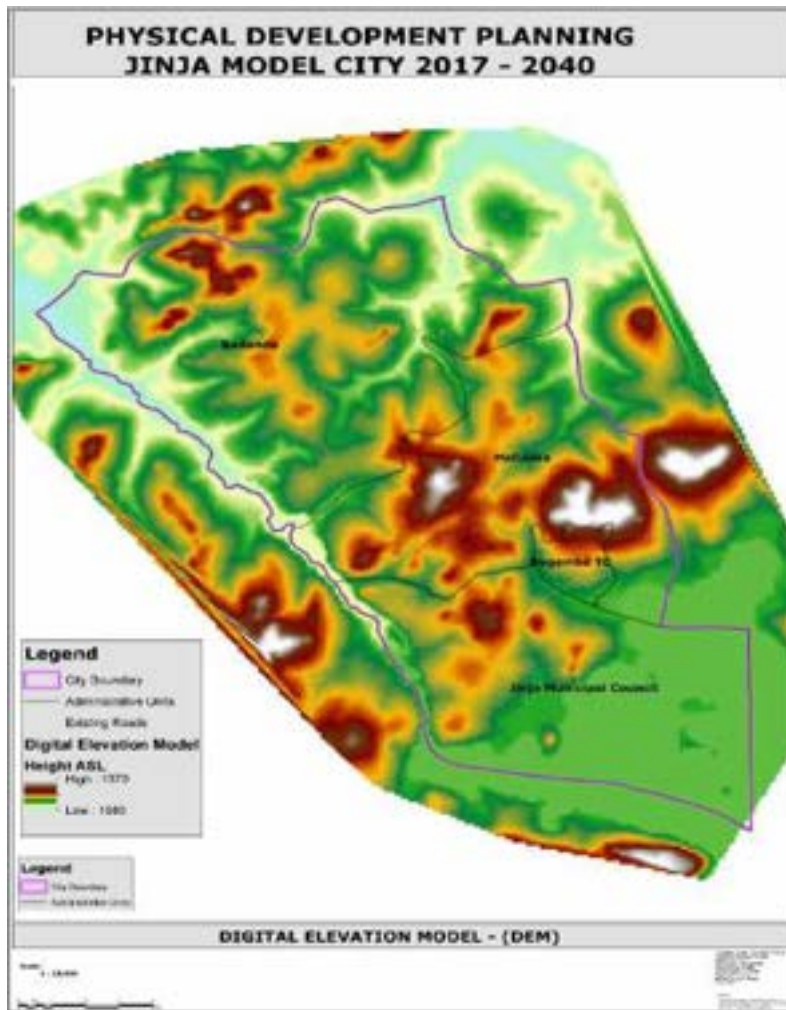
around Kyabazinga Palace & those along River Nile Banks have very steep slopes whereas areas along the shores of L. Victoria & Central parts of Budondo have gentle slopes.

**Map 4-11: slope analysis.**



To further analyze the forms of land surface for the city, a Digital Elevation Model-DEM was created. This shows the various aspects of land form including, relief variations, direction of water flow among other aspects.

**Map 4-12: Digital elevation model.**



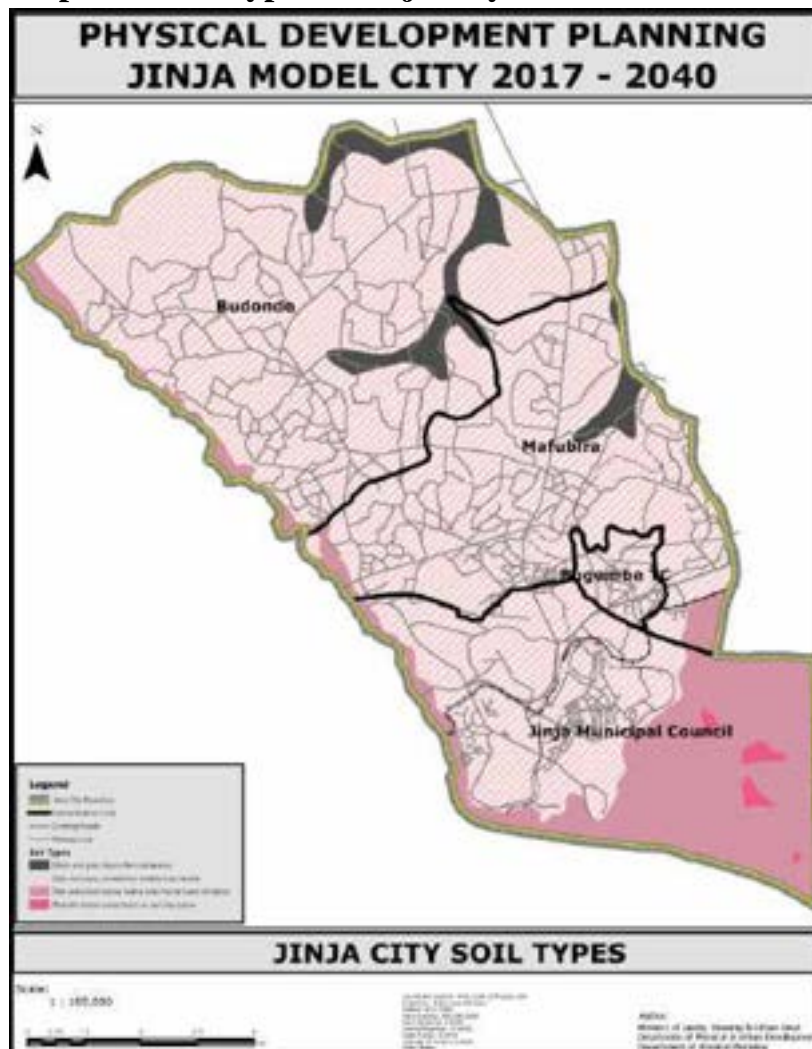
In terms of climate, Jinja enjoys a pleasant climate with temperatures varying between 20°C and 30°C. Jinja which lies along the Nile basin experiences an equatorial type of climate with two dry and rainy seasons annually. March to May and September to November are the rainy seasons whereas December to February and June to August are usually dry periods.

#### **4.5.2. Soils.**

Jinja City is characterized by heavy loamy soils which are rich in nutrients and support plant growth. Other soils in the area are clay soils, sandy soils and sandy loamy soils especially in some valleys. There are also ferrisols (red soils) on basic rocks.



**Map 4-13: Soil types in Jinja City.**



#### **4.5.3. Vegetation.**

Jinja is characterized by savannah vegetation especially areas surrounding Lake Victoria while the central part has forest savannah mosaic. There are a few isolated forests left in some of the valleys and lower slopes. There are also riverine forests along River Nile. It should be noted however that most of the forests have been encroached on mainly for cultivation purposes.

There are also dry moist combretum savannahs characterized by dense growth of evergreen and deciduous shrubs and small trees with interlocking crowns. There are also wetland communities common along River Nile and extend into Lake Kyoga through Lake Victoria and these are characterized by wetland vegetation like swamps. There are also some permanently water-logged areas mainly characterized by Cyprus.

#### 4.5.4. Natural resources.

In terms of natural resources, Jinja City is endowed with fertile agricultural lands, wetlands, hills and forest reserves. Important to note is that Jinja town is situated on the East Bank of the River Nile and it is source to the world's longest river (River Nile). Jinja City is also covered with Lake Victoria which is a source of fresh water and a variety of fish species. The map below shows the existing natural features in the city.

**Map 4-14: Existing natural features.**



## **4.6. Infrastructure and utilities.**

### **4.6.1. Roads**

When preparing a Physical Development Plan, it is important to talk about circulation rather than transportation because circulation (getting around) is the goal of citizens whereas transportation is just a method of achieving that goal. Jinja City has a number of roads of different capacities. There are Class 1 roads and these interconnect with the trunk road network, Class II serve the internal transport needs and Class III are mainly low volume traffic roads which extend into peripheral areas. Some of the roads in the city include; Mpumudde, Kira road, Engineer Zikusooka road, Nizam road among others. There are also streets like Main Street.

It is good to understand the current condition of the transportation or circulation system of a community being planned and the starting point is a map showing roads, streets, sidewalks and highways in the community. The map below shows the major roads in Jinja. According to the National Physical Planning Standards and Guidelines 2011, roads are classified into primary, secondary and access roads.

In order to appreciate the travel patterns in Jinja, the team undertook traffic counts on two arterial busy roads within the Municipality (Nalufenya round about and Engineer Zikusooka Road). Public transport vehicles, trucks, private vehicles, bodabodas and bicycles were tracked and tallied in the morning, lunch time and evening, for two days. This was intended to measure the capacity of the roads, current traffic load and the different modes of transport in the Municipality and therefore propose interventions accordingly. Along Nalufenya round about, a total of 3,563 vehicles were counted, 1,079 motorcycles and 62 bicycles. As for Engineer Zikusooka Road, 4242 vehicles were counted during peak hours of the evening, 112 bicycles and 1227 motorcycles. Such information is relevant to planners in making travel demand projections like the number of vehicles likely to travel on a given road in future.

### **4.6.2 Other utilities and social-physical infrastructure.**

Besides roads, there are a number of other existing physical infrastructure in terms of power, water supplies and transport infrastructure. Uniquely, Jinja can be accessed by air, water, road and rail. The major social infrastructure in the city are markets whereas the physical infrastructure include; power lines, power dams, landing sites and parks.

**Air transport.** Jinja Municipal Council has an airfield at Kimaka. The size of the airfield is approximately (1500 x 30) Meters, and has a runway of 1.8 Kms, at an altitude of 3840 Ft. Jinja Airfield was planned in 1954 to airlift workers and materials for construction of

Owen Falls Dam and help to develop fish and tourism sectors. It is administered by Uganda Civil Aviation Authority and the manager in charge of up-country aerodromes. Jinja airfield is strategically located at Kimaka Division, a neighborhood of Jinja District on the outskirts, about 3.6Km by road from the Central Business District. It is adjacent to the Uganda Senior Command and Staff College. It has no planned routes. It mostly handles domestic passengers / visitors at short haul flights from Entebbe, Kajjansi, Gulu, Soroti, Arua, Moroto, and Mbarara among other destinations within Uganda.

**Map 4-15: Utilities and social-physical infrastructure.**



#### **4.7. Social and cultural Institutions.**

Jinja City has a diversity of social and cultural institutions and these include cultural facilities, educational institutions, religious institutions and health institutions. The biggest percentage of the institutions in Jinja are educational institutions (79.2%) followed by

religious institutions (13.78%), health institutions (4.75%) and finally cultural institutions with the least percentage (2.27%).

**Table 4-6: existing social and cultural institutions.**

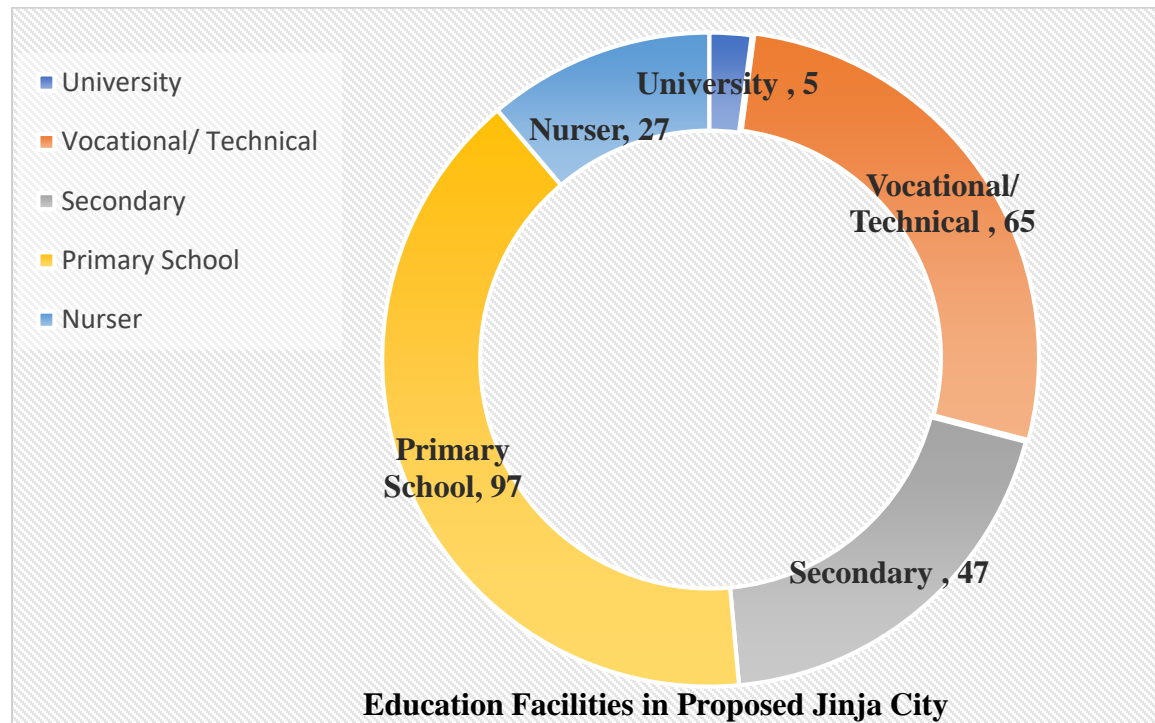
Item	Institution	Number	Area			Percentage
			Acres	Hectares	Sq. Km	
1	Cultural Institution	4	27.38	11.08	0.11	2.27
2	Education Institution	185	954.03	386.08	3.86	79.20
3	Health Institution	12	57.26	23.17	0.23	4.75
4	Religious Institution	52	165.98	67.17	0.67	13.78
<b>Total Area</b>			<b>1204.65</b>	<b>487.50</b>	<b>4.88</b>	<b>100</b>

**Map 4-16: Existing social and cultural institutions.**



#### 4.7.1. Schools.

The importance of schools to the community cannot be emphasized further. It is therefore important to include an inventory of schools in the existing situation analysis. It is imperative to understand the location and capacity of the schools and how easily they can be accessed by the pupils and students. There are a number of educational institutions in Jinja and these include primary and secondary schools, nursery schools, vocational institutions and universities.



*Data source, UBOS 2014, NPPSG 2011*

The above statistics show that the highest number of institutions in Jinja are primary schools with the least being universities.

**Table 4-7: existing secondary and primary schools and projected demand by 2040.**

Current Types of Education Facilities	Catchment Population as per NPPSG-2011	Projected Population 2040 with 5.0 Growth Rate	Education facilities that will be required by 2040	Additional education facilities that will be required by 2040
Secondary (47) include both Private &	50,000	877,360	17	The city is sufficiently served, However Quality



Government Aided				needs to be monitored
Primary School (97)	4,000		219	122

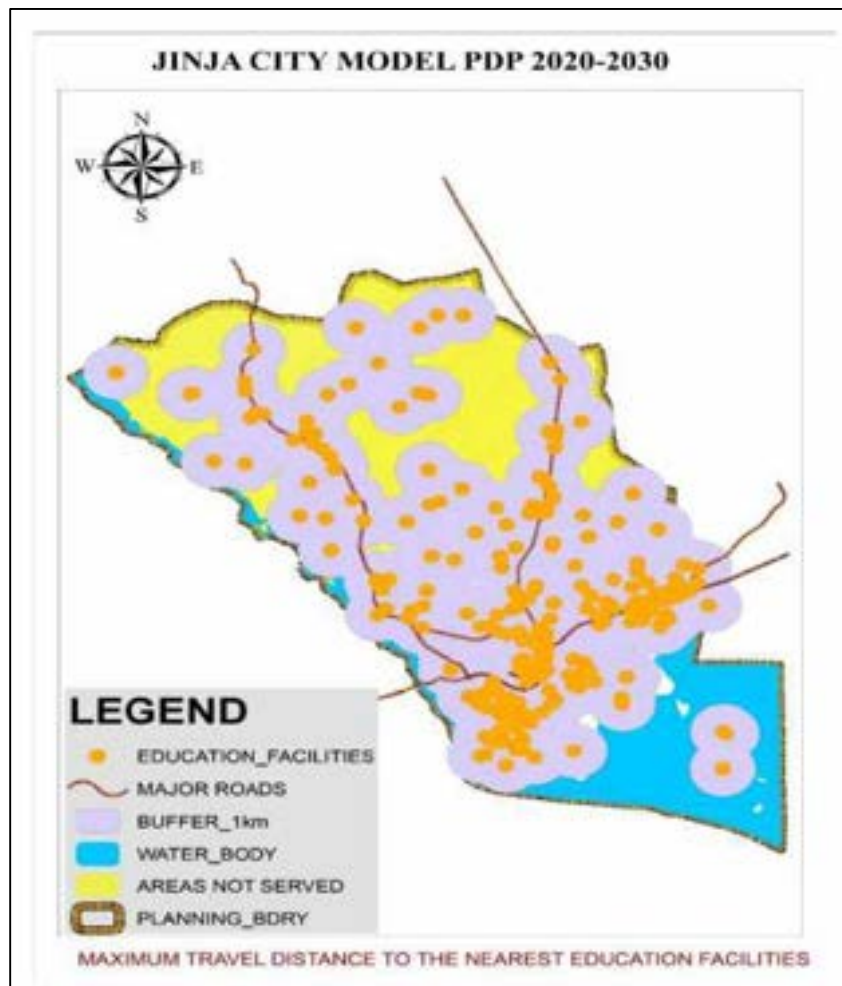
The table above shows that there are currently 97 primary schools in the city. However, considering the provisions in the National Physical Planning Standards and Guidelines 2011 that for every 4000 people in an urban area, there should be a primary school, with a projected population of 877,360 people, the city requires 219 primary schools by 2040. Therefore, since there are currently 97 primary schools in the city, 122 additional schools are required by 2040.

For secondary schools, the analysis above shows that 17 secondary schools are required in the city by 2040. Since there are currently 47 secondary schools in the city, the city was adequately served. What needed to be improved however, was the quality of these schools.

#### **Distribution of education facilities in Jinja city.**

In terms of distribution, the city has a number of educational facilities in all the divisions. The map below shows that in most of the areas within the city, education facilities can be accessed within one kilometer except in some areas within Budondo.

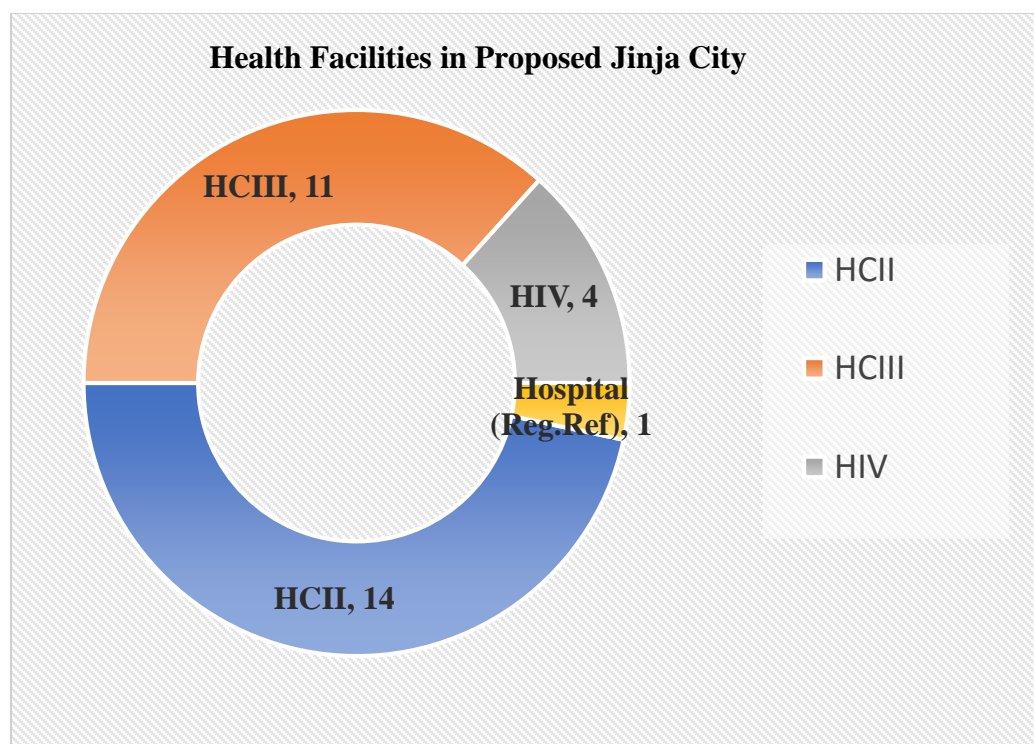
**Map 4-17: showing access to educational facilities.**



#### **4.7.2. Health facilities.**

Jinja city has a number of health facilities ranging from Health Centre IIs to a regional referral hospital. According to UBOS 2014, there are 14 Health Centre IIs, 11 Health Centre IIIs, 4 Health Centre IVs and one regional referral hospital.





*Data source, UBOS 2014, NPPSG 2011*

**Table 4-8: Estimation of future demand for health facilities.**

Current Types of Health Facilities	Catchment Population as per NPPSG-2011	Projected Population 2040 with 5.0 Growth Rate	Additional - Health facilities that will be required by 2040	Total Health facilities that will be required by 2040
Regional Referral Hospital (1)	2,000,000	877,360	-	1
HIV (4)	100,000		5	9
HCII & HCIII (25)	20,000		19	44

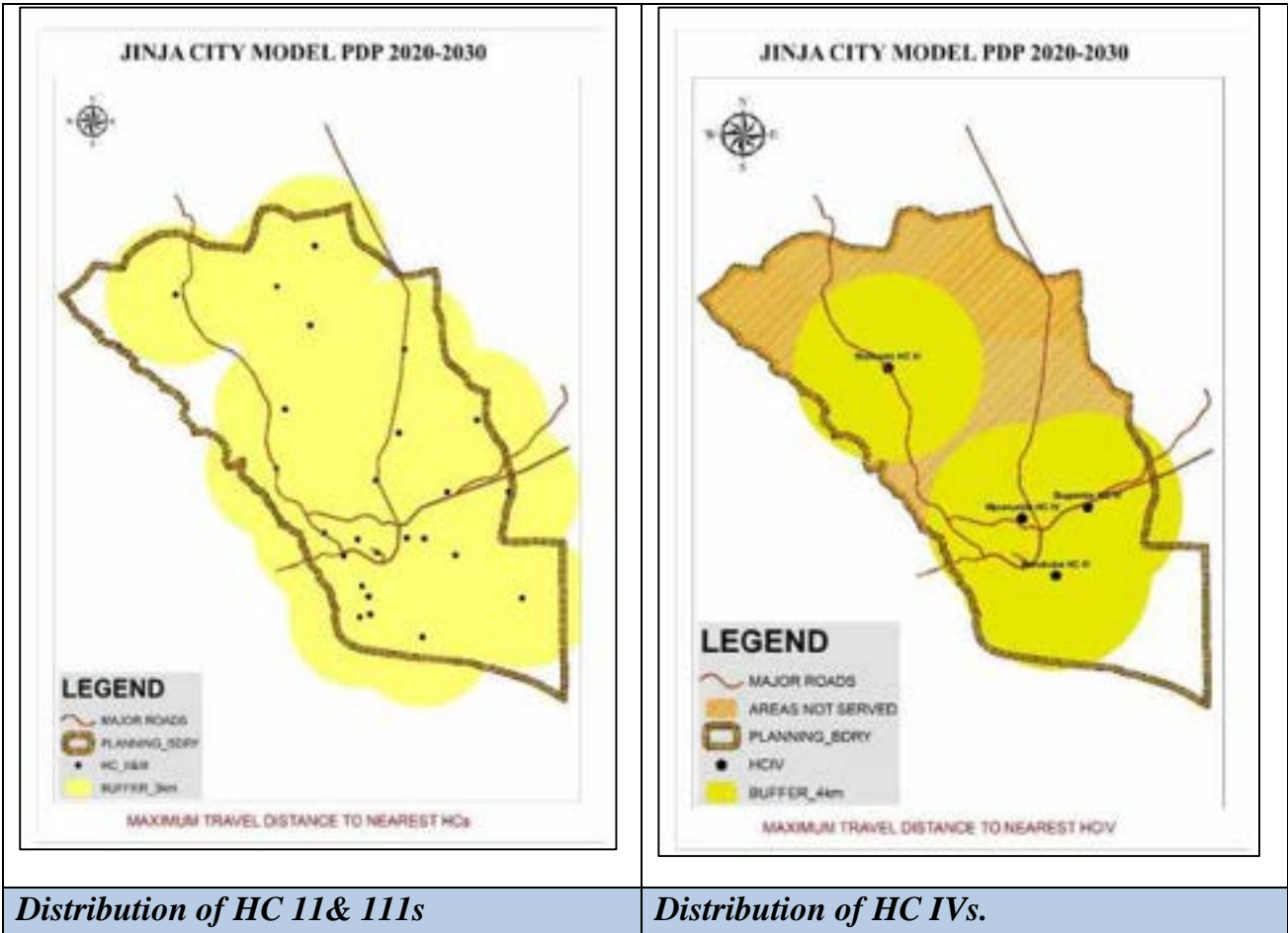
According to the National Physical Planning Standards and Guidelines 2011, there should be one referral hospital for every 2,000,000 people. This implies that with a projected population of 877,360, the available hospital in the city was adequate. And by 2040, the

city required 5 more Health Centre IVs and 19 more Health Centre IIIs putting into consideration that Health Centre 11s were written off as per Ministry of Health guidelines.

**Distribution of health facilities.**

In Jinja City, most of the people can access a Health Centre II or III facility within a 3km walking distance except in a few areas within Budondo Sub County as shown in the map below. In regard to provision of Health Centre IVs, almost everyone within the original Municipal boundary can access the facilities within 4km walking distance. However, a biggest percentage of the population especially in Mafubira and Budondo cannot access the facilities within 4km walking distance.

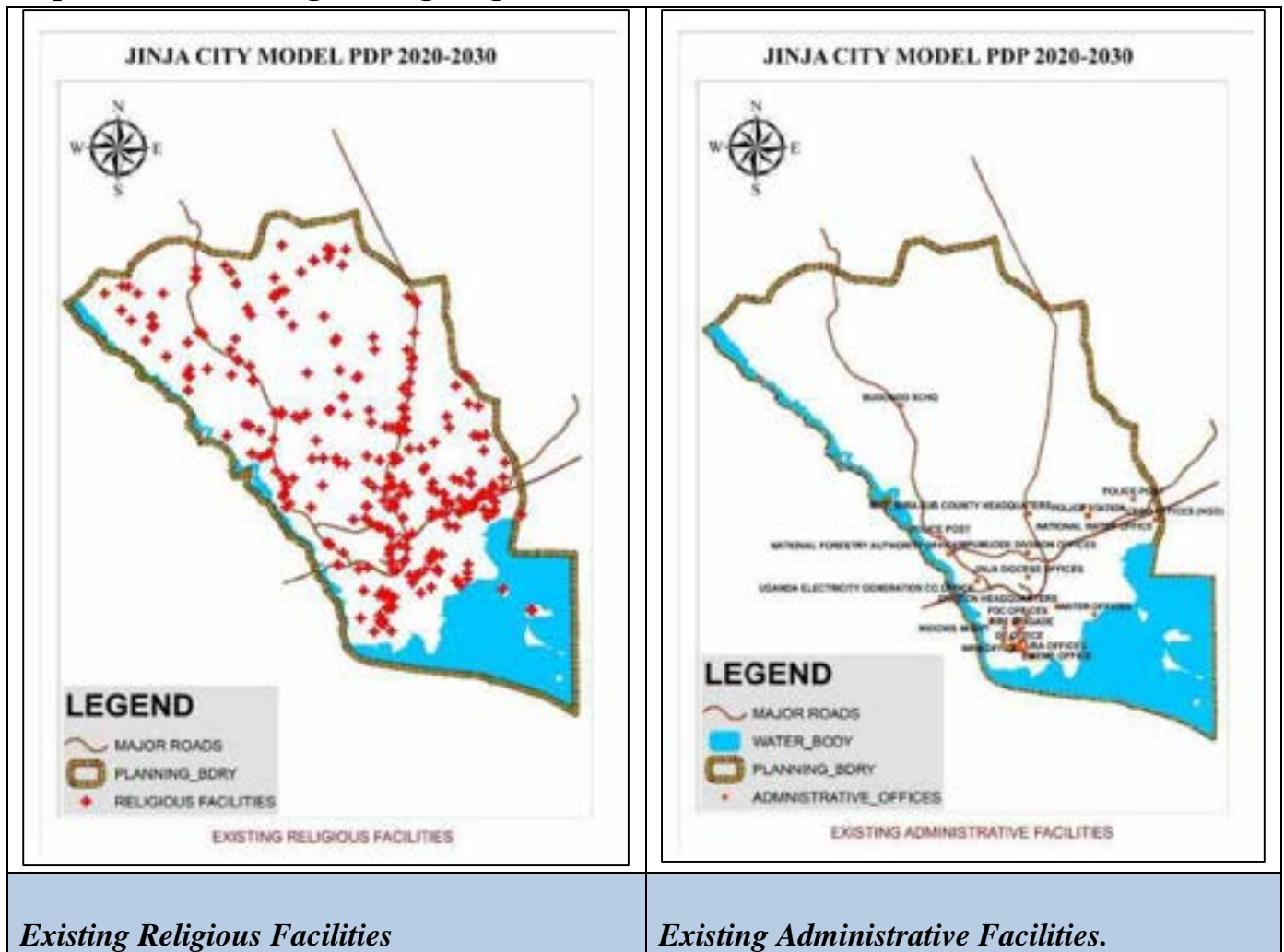
**Map 4-18-19: showing access to HC IIIs IVs.**



#### 4.7.3. Other facilities.

There are also a wide range of religious facilities in the city and other civic facilities like Jinja Municipal Council offices, police posts, division offices, offices of utility companies like National Water and Sewerage Cooperation, UMEME, Jinja diocese offices among others.

**Maps 4-20-21: showing existing religious and administrative facilities.**



## **CHAPTER 5. MODEL CITY PHYSICAL DEVELOPMENT PLAN 2022-2032.**

This chapter discusses the tangible result of a community planning process which is the “Physical Development Plan” as a document that guides the future land use and it is the most visible part of the planning process. The chapter also focusses on planning for public facilities like roads, sewer and water lines, parks and recreational facilities, public land and schools among others. Planning for public facilities is crucial because they are the most powerful tools that Local Governments use to implement the Physical Development Plans.

For any physical development planning process to be successful, the PDP should be implementable. However, it is important to note that implementing a plan for a developed area like Jinja and where most of the land is not owned by Government but rather individuals entirely depends on a good future land use map or Physical Development Plan. Preparation of a Physical Development Plan requires making major policy decisions that directly affect the communities especially owners of private land.

The Jinja model city integrated physical development plan aims at achieving the overall city vision which is;

**“A sustainable and prosperous city with excellence in Tourism, commerce and industry by 2040.”**

### **Basic principles used in the preparation of the Physical Development plan.**

#### **❖ Existing uses.**

One of the key principles considered in the preparation of this Physical Development Plan is existing uses in the town. This helps to protect neighborhoods from undesirable changes, compensation but also revitalize old areas. It also helps protect areas from incompatible uses with the surrounding neighborhoods as the existing situation provides the basis for the planning.

#### **❖ Use compatibility.**

Zoning primarily is a key implementation tool for land use plans that looked at separation of land uses into compatible zones. Therefore, in this plan, there are deliberate efforts to separate residential uses from industrial and intense commercial uses. This plan also considers a veracious mix of land uses like residential with some commercial uses.

### ❖ Land demand.

It is important to undertake land demand projections when preparing a Physical Development Plan. This helps to determine the development land needs. Using the population projections, the planning team was able to determine the land needed to house the population specifically, land needed for residential land uses. This land demand projection was undertaken to determine the land that is needed for future development. It is not necessary to plan for four or five times as much land that will be needed for future development as is actually needed.

Using the population projections, the team was able to project the housing demand in terms of units that will be required for the population. Furthermore, the land that will be required to set-up the housing units was also projected using the population projection figures.

In order to project the housing demand in the various time periods, the following formula was adopted;

**Housing Demand (units) = Population/ Persons per household.**

**Table 5-1: shows the housing demand projections for Jinja City.**

2014		2020		2040	
Population	Units	Population	Units	Population	Units
247,074	68,632	331,079	91,966	877,360	243,711

**Source:** *Population projections, Jinja model city Integrated Physical Development Plan.*

Considering an average household size of 3.6, 68,632 housing units were required in 2014, 91,966 units in 2020 and 243,711 units in 2040 as shown in the above table.

The land demand to house the population is projected using the following formula;

**Land Demand (acres) = Housing Demand (Units)/ Units per acre.**

**Table 5-2: Land demand for housing needs in Jinja City;**

Land Demand (acres)	Land Demand (acres)	Land Demand (acres)
2014	2020	2040
11,439	15,328	40,619

**Source:** *Population projections, Jinja model city Integrated Physical Development Plan.*

Considering an average density of 6 units per acre, 11,439 acres of land were required in 2014 for housing or residential development, 15,328 acres in 2020 and 40,619 acres in 2040.

❖ **Environmental opportunities and constraints.**

Analysis of the environmental conditions of the community provides a strong basis for physical development planning proposals. Consideration of environmental constraints and opportunities helps communities decide on which areas are most suitable for future development, areas to be earmarked for agricultural or recreational purposes and environmentally sensitive areas that ought to be conserved. This principle enhances the use of nature-based solutions to provide for economic development while protecting the ecosystems.

❖ **Ethical considerations.**

In preparing this Physical Development Plan, there were also ethical considerations and this enabled the planning team and community to agree mainly on where to propose the least popular uses like cemeteries, wastewater or sewage treatment plants, heavy industry among others. Most communities in Uganda don't associate with such uses yet these are necessary and essential facilities. Without ethical considerations, these may end up in the poorest communities.

❖ **Transportation influences.**

In preparing the Jinja Model City Physical Development Plan, transportation influences were put into consideration when making land use proposals. In this plan, non-residential uses are proposed along major roadways. Commercial developments are mainly proposed along major roads. There is also provision for highway oriented commercial along intersections of the interstate highway. Highway oriented commercial allows for development for motels, fast food restaurants and petrol stations among others. Industrial development, major institutions like universities, hospitals and major sports facilities are also proposed along major transportation routes. Provision of access to residential neighborhoods office buildings is also prioritized in this Plan. This principle focuses mainly on ensuring connectivity between facilities through providing appropriate transport modes and types.

❖ **Local economic development.**

Local economic development is a key consideration in the physical development planning process. There should be specific interventions in the plan that aim at developing the economy of the community. In this physical development plan, some land has been earmarked for industries and employment generating land uses.

#### ❖ **Plans for resort areas.**

Since Jinja is endowed with two fresh water bodies- Lake Victoria and River Nile, Lake front development has been encouraged by the Physical Development Plan. The plan has proposed tourist-oriented activities and other land uses compatible with resort activities in areas adjacent to the water bodies.

### **5.0. Development proposals and strategic interventions**

This section covers the development proposals and strategic interventions in various spheres of physical and socio-economic development in the city of Jinja.

#### **5.1. Jinja Model City Proposed Physical Development Plan 2022-2032**

The Jinja model city physical development plan is prepared in accordance to guidelines from a diversity of sources which have provided the wealth of knowledge to support the process. Specifically, a number of documents have been integrated in the making of the Jinja city model PDP and these include, but not limited to Uganda's vision 2040, NDP III, NPDP and others. Additionally, the development of the plan is guided by the vision and mission statement of the city of Jinja. The physical developed plan is to guide urban development of the city by providing a broad framework and guideline for orderly and coordinated development. The broader strategic interventions are as indicated below;

- i. City Administration & CBD Functions – **Old Municipal Boundaries**
- ii. Agro-Processing – **Budondo**
- iii. Manufacturing & Processing – **Bugembe**
- iv. Food Production – **Lukolo**
- v. Housing & Commerce – **Mafubira**
- vi. Tourism & Hospitality – **Buyala**

# PHYSICAL DEVELOPMENT PLANNING JINJA MODEL CITY 2017 - 2040

**Legend**

**Broader Strategic Interventions**

**Landuse**

- Administrative & Commercial Area
- Agro Processing
- Food Basket
- Manufacturing and Processing
- Residential & Commercial Area
- Water Front Devts

**INTER-CITY STRATEGIC INTERVENTIONS**

Scale: 1 : 150,000

Author: Ministry of Lands, Housing & Urban Development, Jinja District Office

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**Table 5-3: Land use proposals in the Jinja Model City PDP**

LAND USE PROPOSALS					
No.	Land use	Count	Area Coverage		
			Acres	Hectares	Sq. Km
1	Abattoir	3	2.816	1.140	0.011
2	Agriculture Show Ground	6	20.623	8.346	0.083
3	Airstrip	1	111.775	45.234	0.452
4	Bridge	2	3.831	1.550	0.016
5	Buffer	124	2057.948	832.822	8.328
6	Bus Terminal	1	16.716	6.765	0.068
7	Cemetery	3	23.874	9.661	0.097
8	Civic	47	959.395	388.253	3.883
9	Commercial	61	221.631	89.691	0.897
10	Community Centre	3	3.641	1.474	0.015
11	Cultural	6	71.760	29.040	0.290
12	Fishing	1	5.438	2.200	0.022
13	Forestry	22	3381.805	1368.568	13.686
14	Fuel Station	15	22.714	9.192	0.092
15	Golf Course	3	60.207	24.365	0.244
16	Growth Centre	84	7526.851	3046.009	30.460
17	Heavy Industrial Area	2	2952.429	1194.806	11.948
18	Hotel	29	198.884	80.485	0.805
19	Industrial	79	997.291	403.589	4.036
20	Infrastructure Corridor	1	266.124	107.697	1.077
21	Institutional	252	1416.402	573.198	5.732
22	Lake	1	7081.764	2865.888	28.659
23	Landfill	1	10.350	4.189	0.042
24	Landing Site	3	26.400	10.684	0.107
25	Light Industrial Area	2	2554.005	1033.569	10.336
26	Market	13	34.467	13.948	0.139
27	Open Space	12	55.861	22.606	0.226
28	Park	3	4.151	1.680	0.017
29	Port	2	11.671	4.723	0.047

<b>30</b>	Power Dam	4	128.343	51.938	0.519
<b>31</b>	Railway Line	48	377.500	152.769	1.528
<b>32</b>	Railway Station	7	239.819	97.051	0.971
<b>33</b>	Residential Development	203	8954.482	3623.750	36.238
<b>34</b>	River	6	1285.724	520.314	5.203
<b>35</b>	<b>Road</b>	<b>20</b>	<b>1032.742</b>	<b>417.936</b>	<b>4.179</b>
<b>36</b>	Sewage Lagoon	4	41.316	16.720	0.167
<b>37</b>	SGR Railway	2	0.036	0.015	0.000
<b>38</b>	Sports and Recreation	37	271.032	109.683	1.097
<b>39</b>	Tourism & Hospitality Developments	53	1768.652	715.748	7.157
<b>40</b>	Trailer Park	3	26.213	10.608	0.106
<b>41</b>	Urban Agriculture	73	7277.294	2945.016	29.450
<b>42</b>	Utility	9	22.077	8.934	0.089
<b>43</b>	Ware Houses	3	81.455	32.964	0.330
<b>44</b>	Wetland	43	1919.835	776.930	7.769
	Grand Total		53527.343	21661.747	216.617

## 5.2. Transport systems

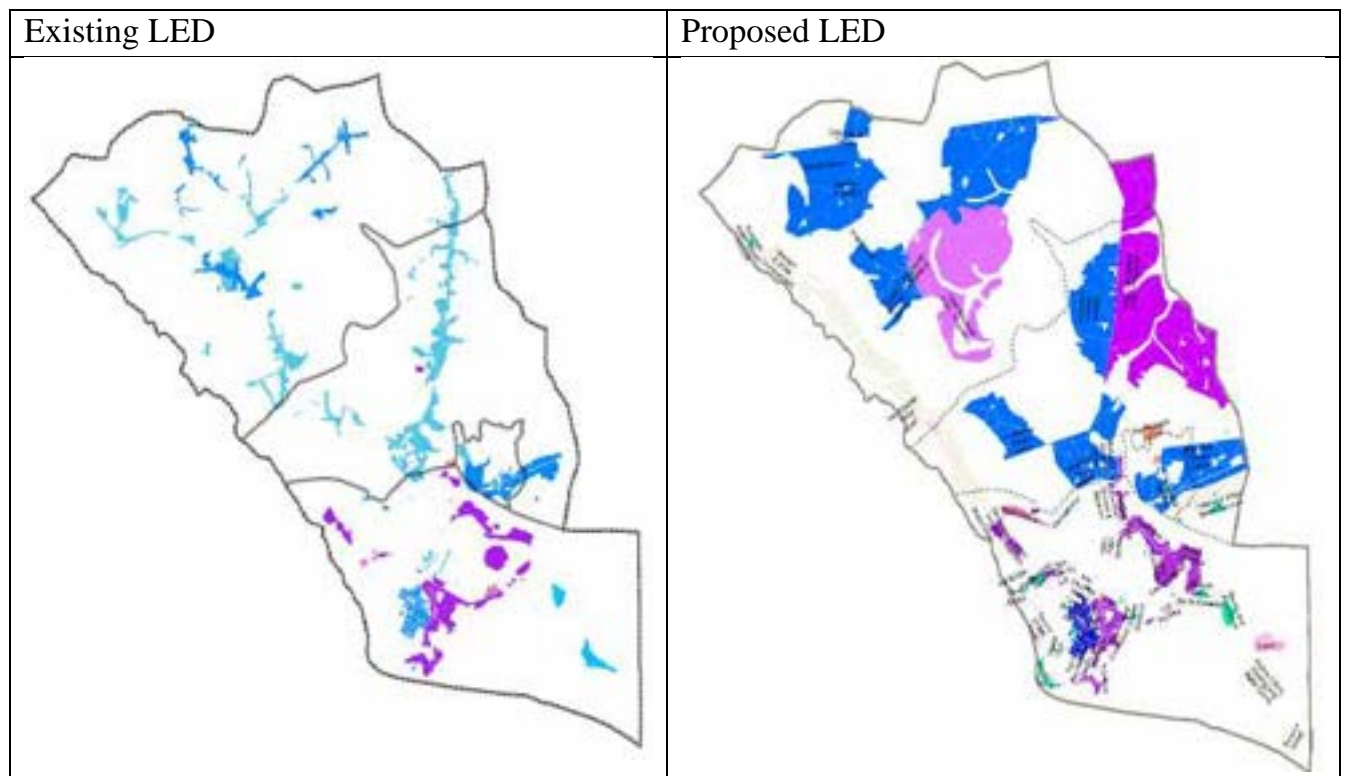
Figure 5-1: Showing the road network in Jinja city



## 5.3. Local Economic Development (LED)

Local Economic Development (LED) covers trade and commerce, industry, tourism and urban agriculture and provides the niche through which the city of Jinja will scale to greater heights. It has thus been distributed as follows;

**Figure 5-2: Existing and proposed LED**



### 5.3.1. Pure commercial activities

The Central Business District comprises of both pure and mixed commercial activities. Commercial services range from wholesale and retail shops, restaurants, offices, lodges, garages, metal workshops, car parks, hotels among others. The central business district is the commercial hub attracting activities from different parts of the city and the surrounding areas. It's within the CBD that critical decisions concerning LED are made and effected by both the city authority and the business community.

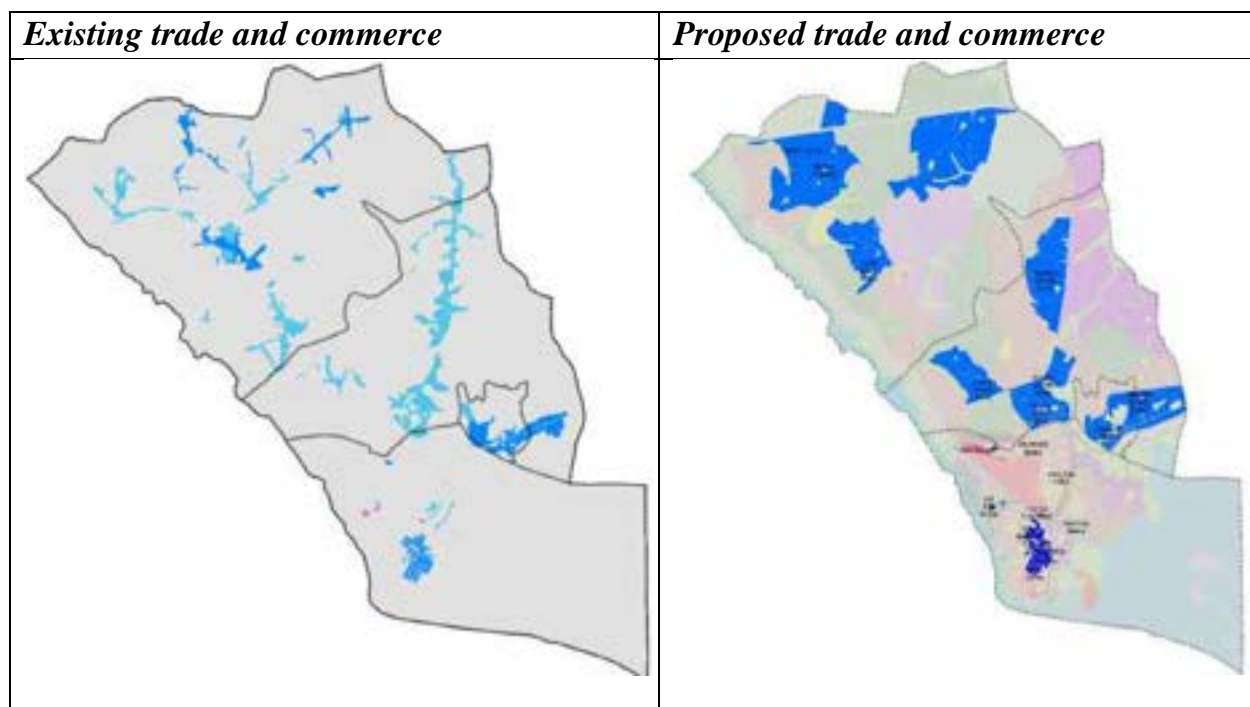
Pure commercial activity has its major base in the Central Business District of the city of Jinja and it occupies areas along the main street mainly by assorted shops, pharmaceuticals, hardware shops and other business related establishments. It's however shrinking both in intensity and coverage, being plagued by the new trends in global development of mixed land use. Purely commercial areas meant that people had to come from somewhere else to work and then retreat after work hours, thus rendering the CBD a ghost area after working hours and on weekends. This therefore explains why places like Bugembe have a vibrant night population and the corresponding night activity in comparison to the city center. It's no longer commercially viable today to have the CBD awake during the day and asleep at night, the city needs vibrancy throughout the 24 hours.

### **5.3.2 Mixed commercial activities**

Mixed land use is an upcoming trend in urban areas especially in the global south and as such, urban authorities ought to accommodate it in the management of the urban fabric. Mixed land use involves commercial and other land uses such as residential, institution or civic. The trend is not only taking route in developing countries, but also planned for in developed countries. In the city of Jinja, the nature of this trend was pronounced mainly in form of shops in the front and residential or bars at the back.

The use of storied buildings is largely mixed up with both the ground and first floors mostly used for shops selling assorted products while the rest of the floors are largely used for restaurants, hotels, offices and residences in some cases. This was further exacerbated by the emerging paradigm of invasion-succession. Due to the forces of demand and supply, the high demand for commercial plots is putting pressure on the residential areas and as a result, the latter is slowly being converted to commercial. A case in point are the areas of Bugembe, Budondo and the CBD. It is thus imperative to consider such norms in order to cater for all urbanites in the city. Just like pure commercial plots, it is recommended that these land uses have sufficient space for utilities and parking among others. Since shopping centers are a major component of any city and thus breathe life into any city, Jinja city model PDP has catered for this. It is thus proposed that some parts of Bugembe, Mafubira, Namulesa, Buyala and Ivunamba be zoned and organised for shopping centers.

**Figure 5-3: Existing vs Proposed trade and commerce**



### **5.3.3. Markets.**

The Jinja city model physical development plan proposes that all existing markets in the city be upgraded and constructed to meet the desired international standards. The market in Bugembe is to be upgraded and another market established at Namulesa in Mafubira. It is further proposed that both Madhvani and Ambercourt markets be relocated and their place of abode has been identified in Budondo. The market land at Napia is to be annexed by the expanding taxi park. The plan further highlights that Jinja central market be supplemented by another market to be constructed in Namizi parish.

It is therefore anticipated that the activity resulting from the proposed markets, shopping malls, bars and night clubs will attract not only the day population, but also night population and thus act as a spark for night activity in the city.

### **5.3.5. Industrial developments**

For decades Jinja was referred to as an industrial town supplying manufactured goods to the whole of Uganda and beyond. Needless to note that schools all over the country would organize tour trips to visit the booming industries in the town. However, Jinja as an industrial city now is a façade of the former self. Most of the former traditional industries lie in ruin with all their machinery rotting away. The planning team has studied some industrial cities like Detroit in Michigan (USA), Buenos Aires (Argentina), Santiago

(Chile) and others in order to get a glimpse of the regeneration paradigm and also provide an antidote for Jinja to regain its former glory. It should be noted that the studied cities were once at their peak of performance, but later degenerated. However, home governments, city authorities coupled with the private sector undertook and also implemented the industrial revival strategies that were recommended in the studies. It is these strategies that the planning team of Jinja is borrowing a leaf from, but also putting into consideration the dynamics in the global south.

The industrial regeneration strategies undertaken included, but not limited to;

- It should be noted that much as urban planning is crucial in the regeneration process, it's in itself not enough. Cities and governments have had to come up with regional plans to cope with not only the spatial aspects of the city, but plans for regional development, socio-economic and territorial revitalisation. In addition, all the examples analyzed share some common principles which seem to be the revitalization process' foundations. First of all, they emphasize the need of public control. Community involvement and participation are crucial for the revitalization success. However, regional development could not be possible without private investment; that's why public – private partnerships have been critical in the analyzed processes for the preparation of Jinja model City plan.
- The second important factor is time. One of the main characteristics of regeneration plans is that they are long processes, so an appropriate schedule and a feasible program are essential. At the same time, large projects have been programmed to be developed in parts in all the analyzed cases. In most cases, the planned urban model is based on the construction of polycentric urban systems. They develop the potential of existing industrial villages, settlements or neighborhoods in decay or abandonment. This urban model of poles at different scales is complemented by social and economic policies to enhance social cohesion (professional training for unemployed industrial workers, amelioration of public transport, development of services to the population, increase of social housing...) and revitalize the region's economy (through policies to encourage outside corporations to settle down and also through programs to support local initiatives and traditional activities linked to the region).
- Finally, the model city plan includes programs to promote lost or forgotten industrial culture through the renovation and reuse of remarkable industrial buildings and elements. The aim is to retrieve the place and workers industrial memory, to recover the traces that have been hidden by decay and which will set the foundations for the city futures.

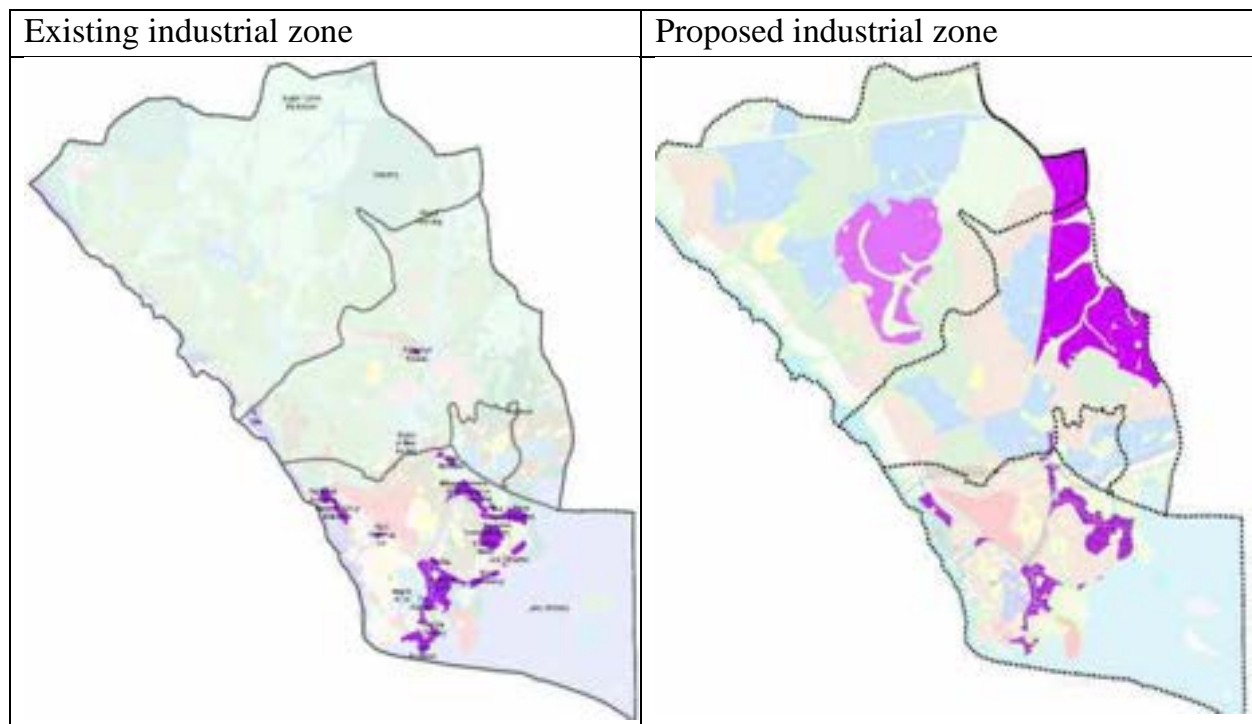
The focus in proposing industrial land has been governed by the competitive and comparative advantage Jinja has over other cities in the country. We thus based on its strategic location, maritime connectivity, rich agricultural hinterland and governance (ability to attract investment through creation of favorable policies), as the niche that could spark off regeneration, the latter being key for the revitalization process.

Being a both urban (Bugembe and former Jinja municipal) and rural (Mafubira and Budondo), chunks of land have been reserved for urban agriculture. This is further coupled with a rich agricultural hinterland and heightened by the strategic location of the city within an agriculturally booming enclave (Kamuli, Iganga, Tororo, Kakira, Buikwe and others). This rich agricultural hinterland is expected to supply raw materials to the proposed agro-based industries. The Jinja City model PDP has largely retained all the existing industries apart from the tanneries. Most of the tanneries were located in the 100m buffer zone and as thus have been relocated to the proposed industrial zones in Mafubira. Instead of using lake or river water directly, the PDP proposes the use of piped water and also onsite effluent management.

Much as the city already boasts of many agriculturally based industries, this plan has proposed for more industrial land, both heavy and light in order to capture and harness the potentials accruing from this. Light industries have been proposed in areas of Kazimungi (majorly value addition on maize) and others in Kibibi, Namizi and Buwaji in the reserves of Budondo to cater for low intensity industrial processing of urban agricultural products. Additionally, heavy industries have also been proposed in Bugembe and Mafubira for example Nakabango, Nsuube, Mutai and Musooli-Buwekula.



**Figure 5-4: Existing vs Proposed industrial zones**



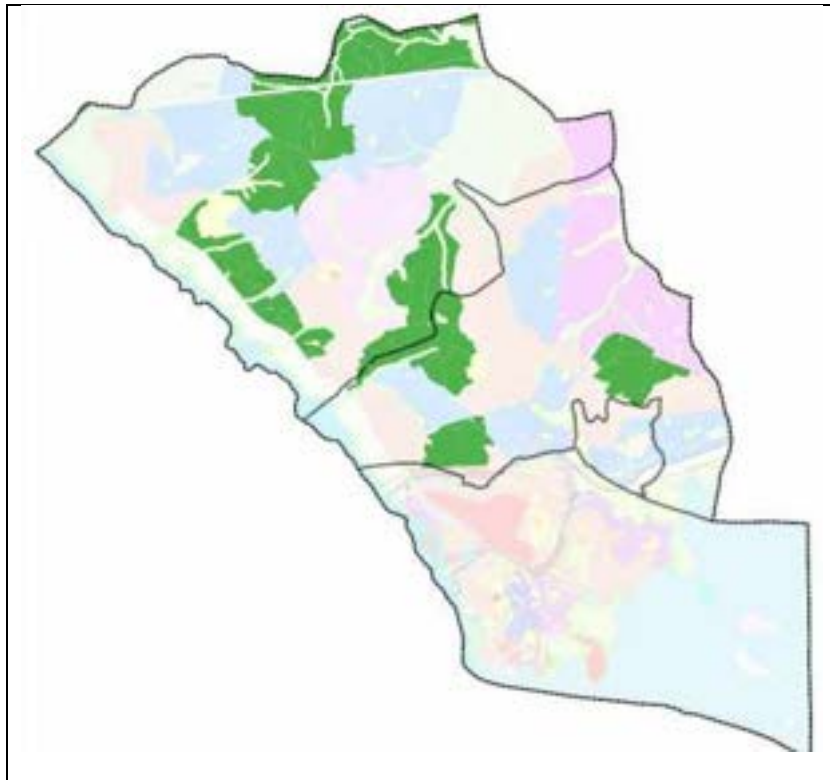
### 5.3.6. Abattoir

Jinja city already has an abattoir located at Works zone next to the municipal yard within the Industrial area. This is used as a slaughter place for animals especially cows and goats to supply meat to the entire city and beyond. However, with the increasing urban population and subsequent developments in the area, this has been relocated to Budondo and other abattoirs have been proposed in Bugembe, Mafubira and Budondo.

### 5.3.7. Urban Agriculture

Agriculture is widely practiced in Jinja city, although mainly for domestic purposes and with majorly rudimental tools. Other than the former Jinja municipal and Bugembe, the annexes of Mafubira and Budondo rely more on agriculture. The plan encourages a remodeling and modernization of the sector to meet the standards of the city, but also the high demand for land. This would mean high yield production, but on small pieces of land. Mafubira and Budondo being rural and agriculturally based, the plan has reserved some land for urban agriculture and agro forestry. Urban agriculture is a common practice in developing countries, it enhances food security as neighborhoods produce their own food and also acts as a land bank for future commercial, industrial, recreational and civic development.

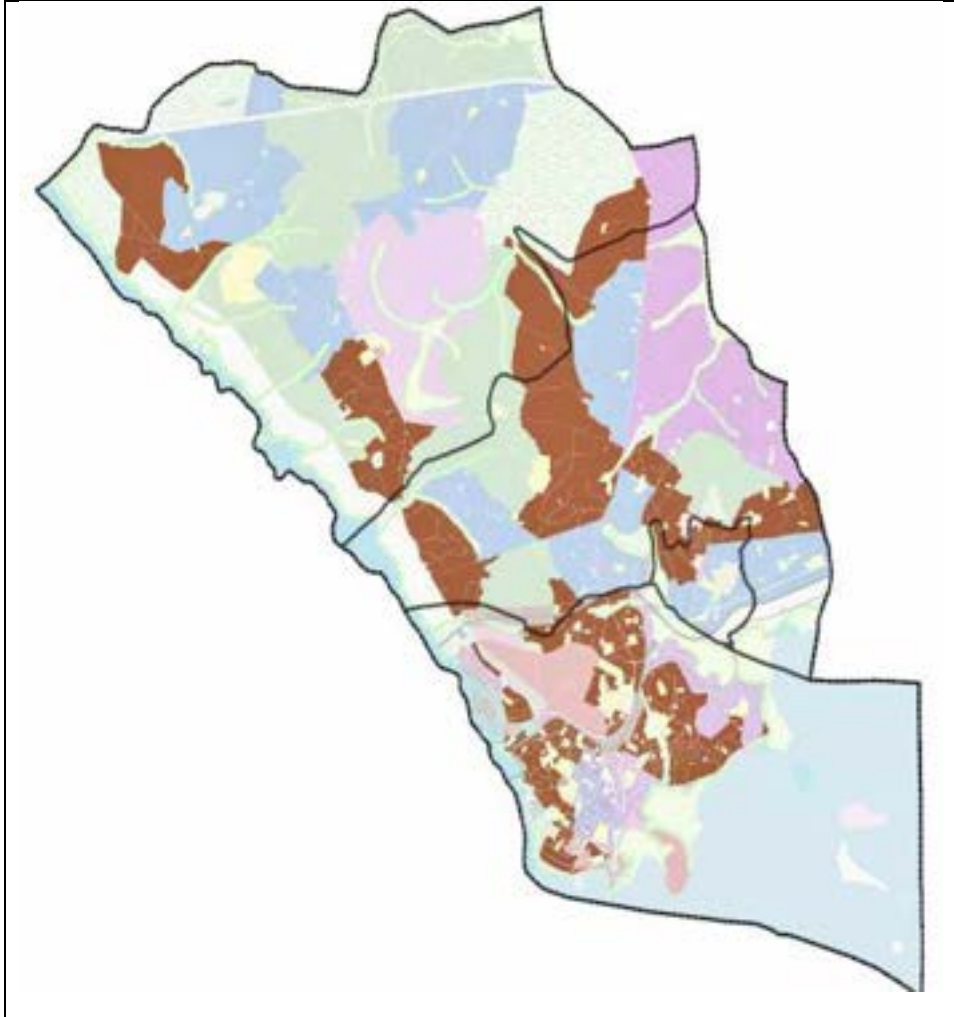
**Figure 5-5: Proposal for urban agriculture**



#### **5.4. Housing and Human settlements.**

Housing is one of the main aspects in urban development. However, it means different things to different people basing on their level of exposure, income, preference and cultural norms. In this physical development plan, housing and settlement areas are planned for. It's however left to the lower level plans like the detailed and master plans to highlight the three different housing categories basing on densities. Housing is therefore proposed in strategic areas including proximity to commercial and industrial areas and beautiful scenery among others. Housing or residential settlements have been spread to all parts of the city to reduce the dependency on Bugembe which has turned out to be a dormitory town leaving other parts ghostly in the night.

**Figure 5-6: Proposed housing and human settlements**



### **5.5. Tourism**

The Jinja city vision embraces tourism as one of the engines of development, the other being commerce and industry. Jinja city model PDP has therefore put much emphasis on this sector as a niche for development. It has thus proposed both lake and river front development in areas around Kirinya, Masese, Samuka, Napoleon Gulf and others and also integrated the source of the Nile tourism master plan which proposes in detail the tourism developments on the Nile basin. It further points out the development of the tourism information centres both at the source of the Nile and at the crested crane school coupled with the existing one at City hall, bridges (New, old and that of the train), power dams, kingdom's administration seat at Bugembe near the Ministry of works, a museum at Mpumudde hill, water sport activities at Masese, Wanyange and Budondo, World War II

Memorial cemetery, bungee jumping, waterfalls at Bujagali and others. Crested crane school is to be upgraded to a Uganda hotel and tourism training institute.

More proposals in this sector range from creation and development of recreation parks in Budondo and Mafubira, development of museums and monuments especially at the palace, to the construction of a tourism road along the Nile basin following the buffer line.

Local tourism activities are also encouraged such as festivals for cultural activities amongst the clans in Busoga region which will uphold cultural values and norms. Emphasis needs to be placed on encouraging locals to participate in tourism activities rather than viewing tourism as a foreign activity.

***Figure 5-7: Existing and proposed tourism sites***



## **Cultural Institutions**

The city is home to many cultural sites including the famous Kyabazinga palace. It is our view that all cultural sites be well looked after to meet international tourism standards thus be an attraction for not only local tourism, but also international.

## **5.6 Institutional**

### **5.6.1 Health**

Although Jinja city boasts of a regional referral hospital, there is still a huge gap in the health sector of the city. A large section of the population especially from Budondo and Mafubira has to travel long distances to have access to a medical facility. Based on this therefore, the planning team has proposed an upgrade of 3 current health center IIIs that is Lwanda, Lukolo and Wakitaka to health center IV. Likewise, Budondo health center IV has been elevated to a hospital. It's worthy to note that as a government policy, all current health center IIs are to be elevated to health center IIIs. It's thus envisaged that this upgrade will bridge the health facility deficit gap in the city. In total , the plan presents 31 health facilities where 1 is a regional referral hospital, 1 is a city hospital , 4 are Health center IVs and 25 health center IIIs.

#### **5.6.1.1 Cemetery**

It was observed during the data collection process that households bury the dead in their backyards or in designated clan burial grounds and as a result, this leads to scattered burial grounds all over the city. With high urbanization rates and also attainment of the city status, its no longer tenable to keep the status quo within the city enclave. Worth pointing out is the fact that burial grounds if not well-maintained result into reduction in land values and are development encumbrances. There are however some cemeteries in the city for example the World War Memorial cemetery, Muslim cemetery and the one at Kubiri. The plan therefore preserves the 3 existing cemeteries within the city.

### **5.6.2 Education**

According to the National Physical Planning Standards and Guidelines, the catchment population for a secondary school is 50,000. Jinja city population projections for 2040 will be 877,360. This puts the required number of secondary schools to 17 much as the city already has 47 schools. This therefore means that the city is sufficiently served much as there is need for quality improvement. As for the primary schools, the catchment population is 4000, meaning that the city will need 219 primary schools vis-à-vis the current 97 schools. There is therefore a deficit of 122 primary schools. This plan has therefore tried to address this deficit by proposing primary schools in strategic areas so as to cover the deficit.

The Jinja city model PDP further proposes a university at Kabowa in Budondo. This is coupled with a library and Information technology center within the same area. Being that Budondo is predominantly agricultural, an agricultural innovation center (vocational institute) at the division headquarters in Budondo has been proposed specifically to harness

the potentials of the division. On the side of tourism, a Uganda hotel and tourism training institute to be located at crested crane school has been proposed with the mission of boasting tourism within the city, region and country at large.

### **5.6.3 Civic and city governance**

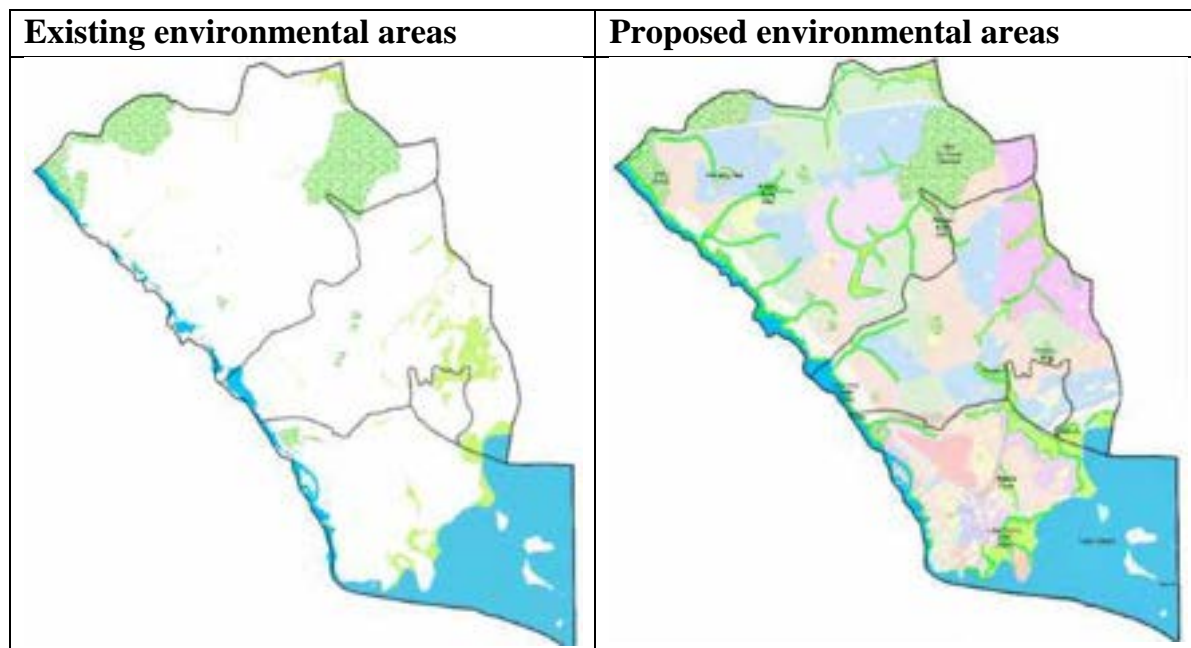
The city has a number of civic areas ranging from city hall, central division offices, lake Victoria offices, Auditor general offices, water offices, state attorney offices, white hall, bank of Uganda, Jinja district headquarters, post office, NSSF building, UMEME offices, district medical stores, state lodge, URA offices, Walukuba division offices, Nalufenya police station, Walukuba police station, Mpumude-Kimaka division offices, Ministry of gender in the CBD, Jinja central police station also located in the CBD and many others.

Furthermore, the city has community services such as community halls among others which enable the community to gather and discuss development issues in society. These services are central for community participation in planning and other related activities. A proposal was made for community centers at all the division headquarters and also maintain all the existing ones.

### **5.6. Environment and Natural Resources**

The environment and natural resources play a key role in regulating and protecting the urban environment. Natural resources provide ecosystem services of regulating, provisionary, habitat and cultural services. Trees provide regulatory services which include air purification, carbon sequestration, which are essential for climate modification hence reducing the negative impacts of climate change. The following proposals have been made under this theme;

**Figure 5-8: Existing and proposed environmental areas**



#### **5.6.1. Water bodies.**

Both Lake Victoria and river Nile are under constant threat through encroachment and pollution. The location of industries very close to both the lake and river shores and the release of industrial effluent in these water bodies has had a negative impact. It is thus recommended that both Lake Victoria and river Nile be protected through a 100m buffer. The water bodies and the swamps are protected under the National Environment Act 2019, page 54, the river bank and lake shore being subject to a 100m buffer zone. The other inland swamps touching the lake or river are to have a buffer of 50m while the rest of the swamps in the city are to be limited to a buffer of 30m. The plan further guides that any industry located within the prescribed buffer zones be relocated to the proposed industrial zones. However, for the water front developments like hotels, the plan retains them, but emphasizes that no concrete development be erected within the buffer zones. The plan encourages tree and grass planting for this zone.

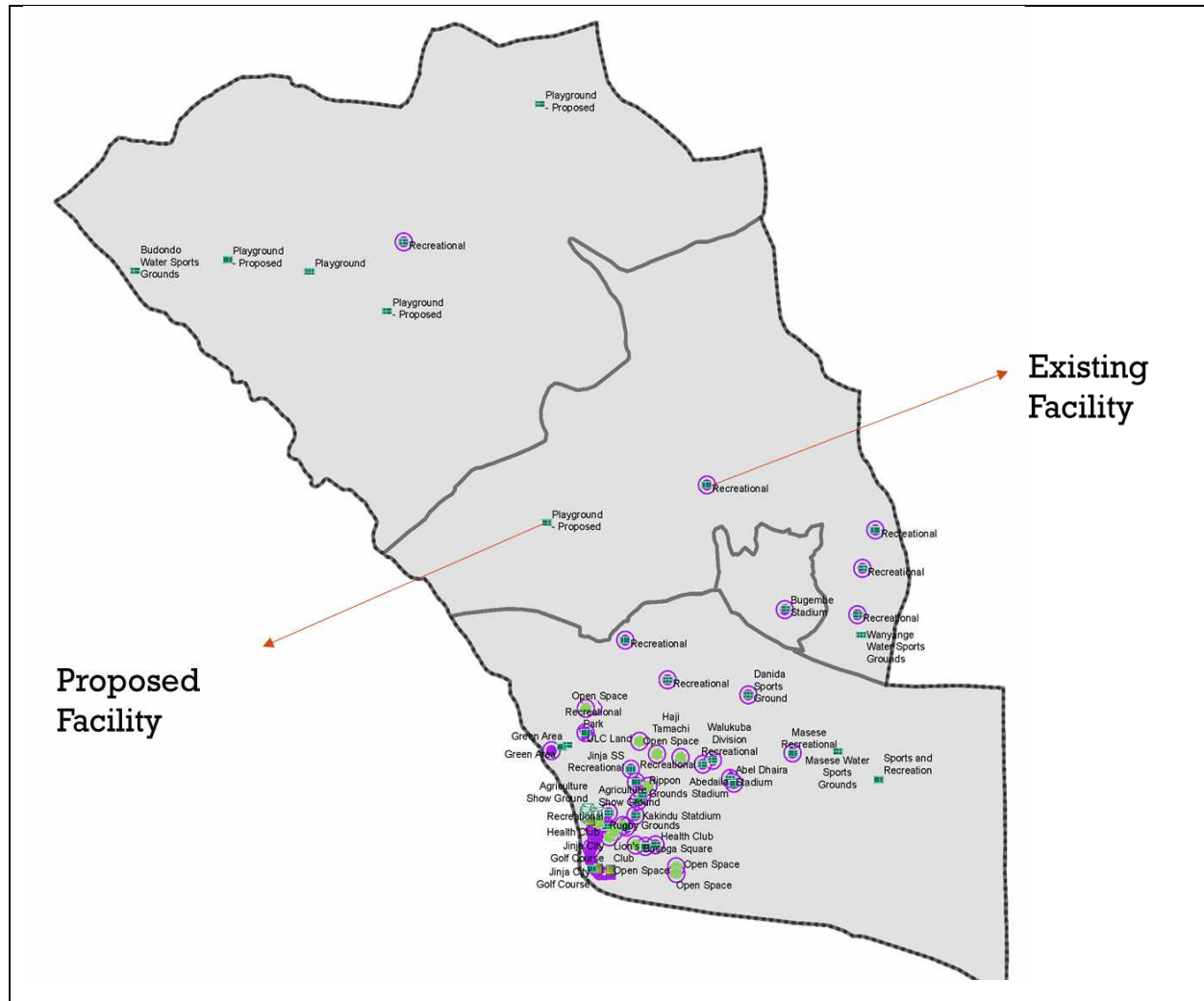
#### **5.6.2. Public Open Spaces**

Public open spaces provide an opportunity for the general public to interact and relate in green spaces. Green spaces enhance place attachment to the specific neighborhood. Proposals have been made for open spaces in all the divisions with the most pronounced one for Botanical gardens. It is recommended that these open spaces are planted with flowers, trees and given sitting pallets. The existing open spaces like the Busoga square, play grounds, stadia and others have been retained. In terms of sports, Abel Dhaira stadium



and Kakindu are to be maintained, but further upgraded and also a proposal for a playground in Budondo has been effected

**Figure 5-9: existing and proposed recreation facility**



### 5.6.3. Agro forestry

Agro forestry provides an outstanding contribution in boasting household incomes, creating aesthetics and climate modification. Tree planting is encouraged more especially on the peripherals of wetlands and in low lying areas such that the urban ecology is protected from polluting elements of man. A buffer zone of 100m has been proposed where possible for tree planting and all other existing forests have been preserved.

The plan encourages a mini-forest like arrangement in the city and also encourages as much as possible to plant trees. The PDP calls upon the city authorities to enact bylaws that will bar the citizenry from cutting down trees within the jurisdiction of the city, unless



permission is sought and granted. Except for the Central Business District and some parts of Bugembe, the city is littered with trees. However, with more local people using firewood for cooking, the tree cover is under threat. This therefore requires sourcing for other sources of energy as a way of containing this threat.

## **5.7 Urban Solid waste management**

Solid waste can be managed with many processes such as sanitary landfill, incineration, recycling, bio-gasification, composting, etc. Although a lot of effort has been put in the collection of solid wastes especially in the central business district, more needs to be done to cover the city as a whole. Close to minimum or no effort is being applied to reduce solid wastes at the source, there is degradation of waste in open dumps which emits greenhouse gases and a lot of open burning which is a major source of toxic gas emissions. This plan therefore proposes an Integrated Solid Waste Management strategy in order to curb this vice. This system uses a full-scale integration of all types of waste management. It involves sustainable planning of all functional elements useful for effective and efficient waste systems. Furthermore, it includes selection and application of suitable techniques and technologies to achieve design of a sustainable system.

The five functional elements of an integrated solid waste management structure include; avoidance, minimization, material recovery through treatment and processes, disposal, and dumping. This follows a hierarchy from the most to the least desirable method.

### **5.7.1. Source reduction.**

The plan proposes Waste Reduction as the highest priority in the hierarchy of solid waste management. The best way to manage solid waste is to not generate waste materials. Waste or source-reduction programs may be as broad and diverse as manufacturing earth-friendly products or encouraging selective purchasing and reuse patterns among consumers.

Waste reduction alternatives:

- a) Encourage citizens and businesses to minimize excessive purchasing.
- b) Reuse materials such as clothing, furniture, building materials, industrial by-products, etc. Second-hand and thrift stores, commercial and industrial materials
- c) Exchange organizations and yard sales are all examples of supporting the conservation of resources by maximizing their use.
- d) Implement programs to businesses and industry to provide information on proper disposition of waste materials and waste reduction strategies. Educate during waste audits.

e) Provide financial incentive through variable rates application: higher rates for higher volumes / lower rates for active participation in waste reduction.

f) Provide educational programs at schools, youth organizations, and volunteer organizations. g) Expand the Comprehensive Education, Information, and Promotion Program by the city, and service providers; create Public/Private programs and Inter-departmental coordination to demonstrate the relationship between the environment and impacts.

h) Adopt and implement procurement policies specific to reuse and selection of materials that contain recycled products.

### **5.7.2 Recycling**

The plan is proposing recycling as the second priority in the hierarchy of solid waste management. Recycling is the process of separating/ sorting, collecting, processing, marketing and ultimately using a material that would have been discarded like plastics. It also helps in the source reduction. It has benefits similar to other forms of source reduction. Recycling options include drop-off depots, buy-back centers, curb side collection programs, apartment/household collection programs, commercial collection programs, and composting.

### **5.7.3 Composting**

Composting is the biological decomposing of organic wastes such as yard wastes (grass clippings, leaves), food scraps, and manure. It exists on multiple scales from small scale that can be implemented by a single household to large scale, used by cities as a key strategy in waste management.

### **5.7.4 Landfills (Sanitary landfills)**

Landfill has been the cheapest method of solid waste disposal. The sanitary landfill is a technique for the final disposal of solid waste in the ground that causes no nuisance or danger to public health or safety; neither does it harm the environment during its operation or after its closure. This technique uses engineering principles to confine the waste to as small an area as possible, covering it daily with layers of earth and compacting it to reduce its volume. In addition, it anticipates the problems that could be caused by the liquids and gases produced by the decomposition of organic matter. The purpose of landfilling is to bury or alter the chemical composition of the wastes so that they do not pose any threat to the environment or public health.

### **5.7.5 Jinja city solid waste management strategy 2040**

The strategy adopts an integrated solid waste management strategy as outlined above. A central final disposal site (Sanitary landfill) is proposed in Budondo to serve the entire city. However, a decentralized site for both administrative and commercial centres is proposed in Musima in Bugembe. This is expected to serve as a solid waste treatment plant (recycling and compost plant). When waste is completely degraded biologically, chemically and physically from this plant, it shall be finally transferred to a centralized facility in Budondo.

Council was working on the by-laws to regulate collection, transportation, storage and disposal of Municipal Waste, a number of companies have expressed interest in turning the waste into energy and about to be considered, there is a company interested in rearing the black soldier flies that are going to use our organic waste; the flies will help in decomposing the waste and providing fertilizers and the NAMA project of bio-gas in Ministry of Energy putting to use the waste at the landfill.

## **5.8 Water and sanitation**

### **5.8.1 Water**

Water is an outstanding resource in urban development from its use for domestic purposes to industrial and commercial purposes. Therefore, the type of water source and its distance from the urban area determines the efficiency in its use for the intended purpose. There are two distinct water resource categories that is, surface and ground water which play a major role in domestic water supply, watering livestock, industrial operations, hydropower generation, agriculture, marine transport, fisheries, waste discharge, tourism, and environmental conservation. The water resources of the city of Jinja are mainly related to Lake Victoria and River Nile.

### **5.8.2 Sanitation**

#### **Jinja city Sanitation Strategy**

This involves provision and construction of sanitation facilities which include: Public toilets to urban growth centers, emptying, collection and haulage of fecal sludge, provision of Fecal sludge treatment plants and Waste water treatment plants. Here below is a proposed sanitation strategy for Jinja city;

- a) Promote use of waterborne toilets with septic tanks.
- b) Construction of Waste Water treatment plant and Decentralized Faecal sludge treatment plants for all commercial and administrative centres.
- c) Provision of public toilets in all Administrative, commercial centers and public places.

- d) Provision of fecal management services by providing emptying services and commercial fecal sludge collection and disposal.
- e) Enactment and enforcement of sanitation laws.
- f) Development of a city-wide drainage master plan to improve storm water management.

### **Jinja city sewerage management system.**

The system will be based on piped sewerage system, sewage and fecal sludge treatment facilities which are under NWSC and the city authorities. Waste water collection and transfer shall be by gravity following natural gravity to avoid pumping stations. The major polluters are densely populated areas and industries. The city sewerage system shall be based on decentralized waste water treatment facilities according to the natural catchment systems.

### **Waste and Storm water infrastructure**

Storm water drainage is concerned with the measures taken to control flow of surface water by collecting it and trapping it through suitably designed conduits away from developed areas. This is done to generally discourage the adverse effects of excess storm water build up. Undirected storm water would otherwise cause flooding thus impairing safety, health and wellbeing of the public to disrupt essential public and commercial services. There are also seasonal swamps and rivers which are flooded by runoff from the catchment areas after a heavy rainfall event.

## **5.9 Energy resilience strategies**

The use of technology as a lever for resilience, the implementation of an inclusive and effective governance strategy, citizen participation from all of Jinja, the involvement of the private sector and the creation of a healthy living environment, are at the heart of the strategy of resilience that the planning team is proposing for the city of Jinja.

The strategy focuses on five priority goals, supported by individual actions that will have an impact across all sectors of society:

### **1. Promote an inclusive resilience agenda by and for the citizens of Jinja city.**

There is need to put those who live in Jinja city firmly at the heart of the resilience Strategy in laying the foundations for active and sustainable citizen participation.

### **2. Provide a healthy living environment**

There is need to make Jinja a pleasant city to live in by building more green spaces and ensuring a better system for citizens and professionals to manage waste.

### **3. Position the private sector as a resilience partner**

There is need to foster and support the involvement of the private sector – both formal and informal – in building resilience.

### **4. Leverage energy efficient technologies to support the city's resilience**

There is need to leverage the wasted potential of energy saving technologies to solve long-standing unresolved electricity challenges.

### **5. Promote inclusive and efficient governance**

There is need to put in place collaborative platforms that encourage all stakeholders to take part in initiatives which support resilience.

Unemployment, energy demand, degradation of the environment, low civic engagement and the effects of pollution, particularly of Lake Victoria and river Nile, have been identified as major constraints and potential causes of stress to which the city of Jinja is confronted. To begin addressing these challenges, the energy resilience Strategy proposes a range of activities that cut across all sectors of society.

These include, but not limited to: teaching the concept of resilience in basic education, maintaining green open spaces, making users aware of the rational and efficient use of energy, a competition to find Innovative solutions and addressing the city's energy challenges and strengthening the dialogue between the central government and the city to collectively address issues related to resilience.

## **5.10. Non-Spatial Aspects**

In preparing the Jinja model city physical development plan, the non-spatial attributes/components were put into consideration when making land use proposals. These dimensions included but not limited to the following, governance and institutional aspects; urban safety and risk management; gender inclusiveness and equity as well as the regional perspective and international obligations for consideration. It is argued that these seemingly invisible or intangible aspects play a key role as drivers and enablers in implementation of the spatial aspects and ensuring that the model plan is economically competitive and productive; environmentally sustainable, livable and socially inclusive and well placed to meet the current future challenges of sustainable urban development.

### **5.10.1 Governance and institutional set up/ inter linkages with planning processes.**

Planning represents a core component of the renewed urban governance paradigm which aims at promoting local democracy, participation and inclusion, transparency and accountability with a view to ensuring better urbanization and spatial quality, environmental sustainability, social and cultural development and economic prosperity.

Jinja City operates under a decentralized system of governance guided by five-year development plans. These plans are intended to fit into the broader National development plans set under Uganda's long-term development plan: Vision 2040. Other planning frameworks include the Physical Development Plan as guided by the Physical Planning Act, 2010, the National Spatial Planning Framework for infrastructure; Sectoral Development Strategies amongst others.

In 2016, it was deemed necessary to adopt a new planning approach that identifies the critical priorities and outcomes to be achieved over a strategic time horizon, will be flexible enough to set progress for Jinja towards its long-term vision, and will align with national development priorities set-out in Uganda's National Development Planning Framework (Vision 2040). The 5 strategic thrusts/ dimensions for the MDS include; governance, economy, social services, environment and citizenship.

The National Urban Policy for Uganda 2017 under objective 5 provides for the promotion of good urban governance and one of the key strategies is to strengthen urban governance with appropriate institutions and mechanisms that promote and encourage stakeholders' involvement. One of the key drivers to the advance effective citizen engagement was the establishment of the Municipal Development Forums (MDF) since 2010 under the auspices of the TSUPU program to date with support from the USMID-AF program in partnership with other development partners like GGGI, Uganda Road Fund. MDFs have been and will continue to be instrumental in the model town planning process and will consequently be used in the popularization and implementation of this plan and also encourage other Municipal and City LGs to buy into this inclusive planning approach i.e. the MDS and MDF philosophy for sustainable urban development.

#### **5.10.2 Urban safety and Urban risk management.**

According to the National Urban Policy 2017, unplanned urbanization results into slums and congestion thus paving way for urban crime and insecurity. Promotion of urban safety and security in the urban areas is a key driver in realizing equitable economic development in urban areas. Research in urban areas also demonstrates that livable, safe and peaceful urban areas provide for investment opportunities in tourism, industry and manufacturing, trade and entrepreneurship as well as innovation and technological advancements in various sectors of the economy.

Jinja city planning process provides for a number of sub-projects and interventions like the institutions that promote urban safety and security with the transportation channels whose designs will provide for connectivity for ICT infrastructure for effective monitoring and surveillance of the city operations day and night.

Urban risk management takes into consideration the five key issues of Preparedness, Disaster event, Relief, Rehabilitation, Reconstruction and Mitigation. A risk is the expected

number of lives lost, persons injured, damage to property and disruption of economic activity due to a particular disaster. The urban risk potentials that this model city planning took into consideration include among others, Transportation accidents, Market fires, Home / public facility fires, Earthquakes, Urban riots, Workshop / garage fires, Disease epidemics, Floods, Industrial accidents / pollution, Fueling stations, Power lines and School fires.

Jinja City will be required to periodically conduct Risk assessment or analysis i.e. identifying, mapping and quantifying risks. It provides a basis for all strategies applied in risk reduction. Jinja leadership will therefore be required to prepare an urban safety management plan taking into account the following roles - Forecasting (monitoring), Early warning systems: communication, Education & public awareness, stockpiling of supplies, Earmarking necessary funds and Capacity building

Similarly, according to the latest report by UNHABITAT 2020, COVID-19 in African Cities, Africa is already facing the crisis necessitating timely responses. Affected are the SMEs, tourism and manufacturing among others. With lockdowns in many countries, the report puts it that the recovery prospects of these enterprises are shrinking facing decreases in assets, workers, customers and market shares. In the same vein, the NDP III, the COVID-19 pandemic has led to a partial lock down of the economy, which disrupted the supply chains and slowed down economic growth. The country therefore, needs to invest in building national capacity in biosecurity and disease surveillance system for early detection and mitigation of bio threats from emerging diseases. In such a scenario therefore, Jinja City will be required to design and implement mechanisms relating to mitigation, response and recovery plans to address the effects of the pandemic across the sectors of the economy. The UNHABITAT 2020 report recommends the need to integrate health dimension into spatial planning processes (like the Jinja Model City planning paradigm).

### **5.10.3 Gender considerations and Social Inclusiveness.**

SDG 5 provides for gender equality and empowerment of all women and girls in advancing planning and development interventions. The National Urban Policy 2017 provides for mainstream gender and other vulnerable groups' issues in the provision of urban infrastructure and services.

The new NDP III recommends Support to gender equality and equity responsive budgeting in all sectors and Local Governments. During the Jinja Model City planning process, gender mainstreaming was taken into account during the planning consultations and preparation process and over the life of this plan, this should be carried forward at implementation and review stages.

The City leadership will be required to advance gender mainstreaming as provided for in the national gender strategy and action plans by MoGLSD by incorporating the same in the

City Budgets, Work plans, and other planning frameworks at departmental levels and beyond. Other related concerns like the sexual and gender-based violence that are likely to arise due to increased business and infrastructure development activities shall also be addressed by the key City departments like Community services and development.

#### **5.10.4. National and Regional perspectives and international obligations & (Territorial Planning).**

The International Guidelines on Urban and Territorial Planning (IG-UTP) intend to constitute a global framework for improving policies, plans and designs for more **compact**, socially **inclusive**, better **integrated** and **connected** cities and territories that foster sustainable urban development and are **resilient** to climate change.

The Jinja Model City Planning process was informed by integrated planning perspectives at International, National and regional levels. These planning frameworks have social-economic as well as spatial influences on the plan implementation of Jinja City.

Uganda's economic growth mainly generated by enterprise growth and improvements in infrastructure along a southern corridor which follows along the Malaba-Kampala-Katuna highway, where the Jinja –Kampala express highway was emphasized to support the JKM corridor being planned by the Ministry of Lands. As a result, the sub-regions in this corridor have the lowest share of households engaged in subsistence agriculture with majority of product markets being all agro-based in coffee, tea and dairy.

Under the NDPIII, government will focus on development of two additional corridors i.e. the Eastern Corridor and the Albertine Corridor thereby forming a growth triangle premised on regional growth of urbanised zones and corridors based on agriculture and natural resources clusters. This growth triangle will be anchored around three Manufacturing Hubs (Gulu; Mbarara and Mbale) that are each reinforced by a number of primary production centres located in the surrounding sub-regions. The Eastern growth corridor will follow the current Meter Gauge Railway line that runs across Bukedi- Bugisu-Teso-Lango-Acholi sub-regions (with a spur to West Nile and Karamoja)

The transport proposals for Jinja City will connect well in the intra and inter regional transportation routes thereby facilitating the movement of goods and services for trade and commerce as well as entrepreneurship development in order to boost tourism, trade, as well as industry and manufacturing – the core economic potentials of Jinja model city.

Jinja Model City Planning approach adopted inter and intra territorial cohesion - a balanced urban development model aiming at reducing social economic disparities among urban areas and avoiding imbalances. This represents the ambition for citizens to have equal access to facilities, services and knowledge regardless of where they live. A form of



networking giving emphasis to the physical and interactive connection that exist between different communication centres and that also link them with their surroundings. Chapter 6 therefore represents this linkage between the planning area and its peripheral areas

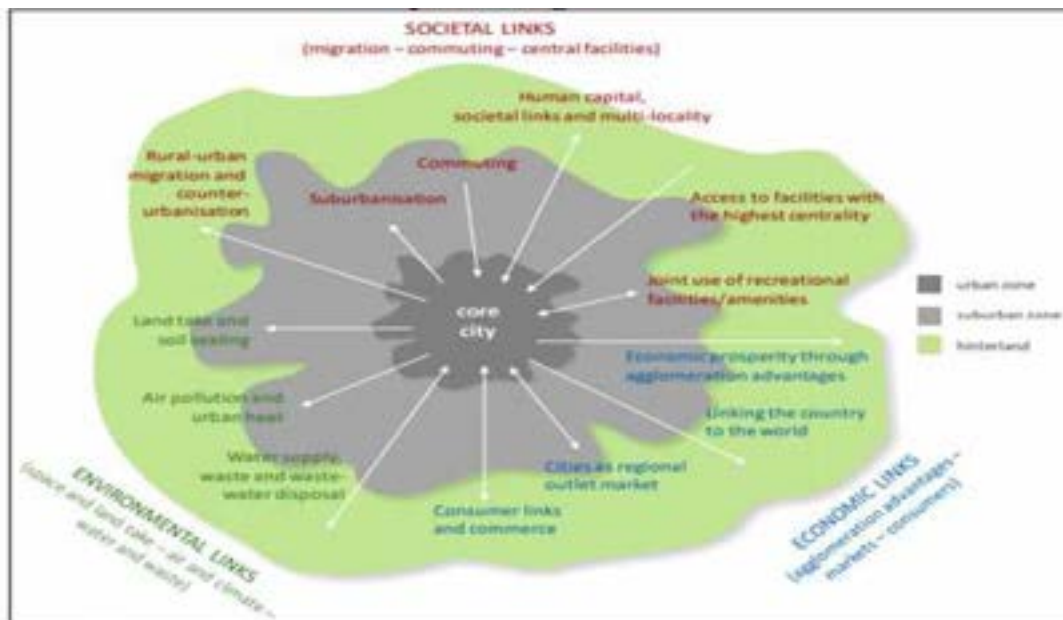
### **5.11: PERIPHERAL PLANNING.**

This section represents the linkage efforts between the planning area (primary area of concern) and its surroundings (areas of influence outside the primary area) and details the issues from the consultations with officials from the three Local Governments that boarder Jinja City.

For long, planning has been limited to the boundaries of the entity (urban authorities) being planned without much thought given to the peripheral areas. This has thus led to planning without due consideration to the areas outside the prescribed boundaries. It is worth noting that in practicality, physical boundaries tend to remain on maps and plans, but on ground, there is interaction in terms of linkages among the people, the businesses, transportation and the like. It's thus imperative that peripheral planning is considered and also actualized during the process of planning. The whole idea is to harness synergies arising from functional spatial urban interdependencies (e.g. mobility, housing, employment) and also to ensure compatibility of the proposed city development strategies with its environs.

Peripheral planning is coined as the process of looking at and also integrating the various spheres of influence that are outside the boundaries of the primary area of interest in the decision making processes of plan generation. These ideally could be cultural, economic, industrial, tourism, water bodies and the like that could ideally impact the planning in the primary area of interest. It could also be vice versa in a sense that proposals in the primary area of interest could impact the peripheral areas in many ways and thus, it's imperious to look at the spill overs and their resultant impact by revealing meaningful spatial dynamics of urban phenomena (*functional reality of urban agglomerations and their planning*) that vary within and across the city administrative limits.

**Figure 6.1: Conceptual framework for peripheral planning**



The planning of Jinja city encompassing the former municipal council and its annexes of Bugembe, Mafubira and Budondo has thus created enormous spill-overs to the peripheral areas of Jinja city. These peripheral areas include Butagaya Sub county, Njeru town council, and Kakira town council. In order to appreciate the various areas of influence in these peripheral areas that ought to be considered in the Jinja city PDP, the planning team held a three-day workshop where officials from Njeru MC, Butagaya SC and Kakira Town Council were consulted.

The map illustrates the geographical context of the Greater Jinja Municipality. It is bordered by Butagaya Sub-County to the north, Budondo to the west, Kayunga District to the northwest, Bunwe District to the southwest, Mayuge District to the south, and Nakuru Town Council to the east. The municipality's boundary is highlighted with a thick red dashed line. Within the municipality, several growth centres are identified: Namagere, Lukoto, Kibibi, Buyala, Karamoja, Kyamamba, and Jinja Port. A legend in the top left corner clarifies that blue dots indicate trading centres and red dots indicate health centres. The map also shows major roads and the proximity to Lake Kyoga.



**Table 6.1 Matrix of comments by peripheral stakeholders.**

<b>Jinja city PDP</b>	<b>Njeru Municipal Council</b>	<b>Butagaya Sub County</b>	<b>Kakira Town Council</b>
The area for the abattoir should be more than the 2.816 acres proposed in the PDP. This is because there are quite a number of facilities on an abattoir that require a bigger piece of land	There was need to understand the major strategies in managing the expected challenges of rapid urbanisation	Itanda falls and Busowoko falls in Butagaya were key features that had an influence on Jinja City and therefore ought to be considered in the PDP	Availability Lake Victoria waterfront.
Only one landfill should be proposed to serve the entire city and Kakira Town Council	Understand the compatibility of Jinja model city PDP with the National Physical Development Plan	There was also need for an integrated waste management strategy for the city taking into consideration areas in the periphery.	Availability of undeveloped land.
The planning team was tasked to investigate the possibility of having locomotives/trams in the city	The connectivity between Jinja and Njeru in terms of transportation	Emphasized the need for environmental conservation especially the wetlands	High resident population.
There were planned lagoons in the Town Council- Kigoogwa Cell that ought to be considered in the PDP	There was a proposal for a bridge from Nyenga lakeshore to the city in order to improve tourism as well as Wakisi river bank		Busoga College Mwiri and Mwiri Primary School have great influence on Jinja City and ought to be put into consideration when planning.

	ICT should clearly come-out as one of the strategic directions that the PDP should address		An industrial park in Kagogwa
	A cable car linking Jinja across the Source of the Nile to Jinja should be proposed		Mwiri hilltop is a potential site for tourism development.
	There was also a proposed industrial park in Nyenga Division, Buwampa Cell as per the Njeru Municipal Council PDP		Availability of undeveloped land.
	Medium and small-scale industries like metal fabrication should be considered		Viva College is an international school that needs to be put into perspective
	Waste management facilities should be put in close proximity with the CBD		Lamu hospital is also an important feature that needs to be put into consideration
	The tanneries should be in close proximity to the abattoir.		There is a private airstrip that has great influence to the city
	PDP should recommend improvement in the technology used in the tanneries.		There were a number of primary and secondary schools that ought to be given due consideration

	Electricity should be provided in Budondo as a priority		Availability of banks
	Njeru MC Officials were also in agreement with the planning team to have the proposal of a buffer and waterfront development running along the Nile replicated on the Njeru side		

**Figure 6.4 Plan presentation to the peripheral stakeholders**





***Presentation by MLHUD to stakeholders.***

#### **5.11.1. Issues identified from the fieldwork.**

On the side of Njeru town council, the planning team explored the water front precincts along the Nile such that what was being planned on the Jinja city side was essentially replicated on the Njeru side. Already, the Nile water front areas are boasting of Tulina and Haven resorts in Nakalanga village near Ntanda falls, Holland Park and Horse ride at Kira village, Naminya ward in Wakisi division. Wakisi division still boasts of Adrift in Kikubamutwe village, Budagaali at Malindi village and an industrial park in Malindi, already vaunting of Yogo steel, delta refractories, millennium tiles and many others. In central division, a number of entities were identified ranging from industries like Pramuk steel, Blue ribbon, Muzitozana, Victoria Nile plastics, to tourism related activities like Nile discovery resort beach in Lower Nava in Njeru east ward (The site for the infamous Nyegenyege social activities), Molex resort still in the same precincts and King fisher in Bukaya west among others. In Nyenga division, Tongolo ward in Tongolo village, the planning team identified Tongolo resort beach.

In Butagaya Sub County, the team explored the famous Itanda falls and Busowoko falls that have great potential for boosting the tourism sector of Jinja City. In Kakira Town Council, the team visited Kigogwa where the Town Council plans to develop sewer lagoons. The team also visited a proposed site for a beach, Mwiri hill and the industrial park that house the famous Kiira motors.



**Photos showing some of the areas of interest in Njeru town council**



**Source of the Nile resort**



**Tongolo resort**





**Nile discovery resort beach**



**Bujagali power station**

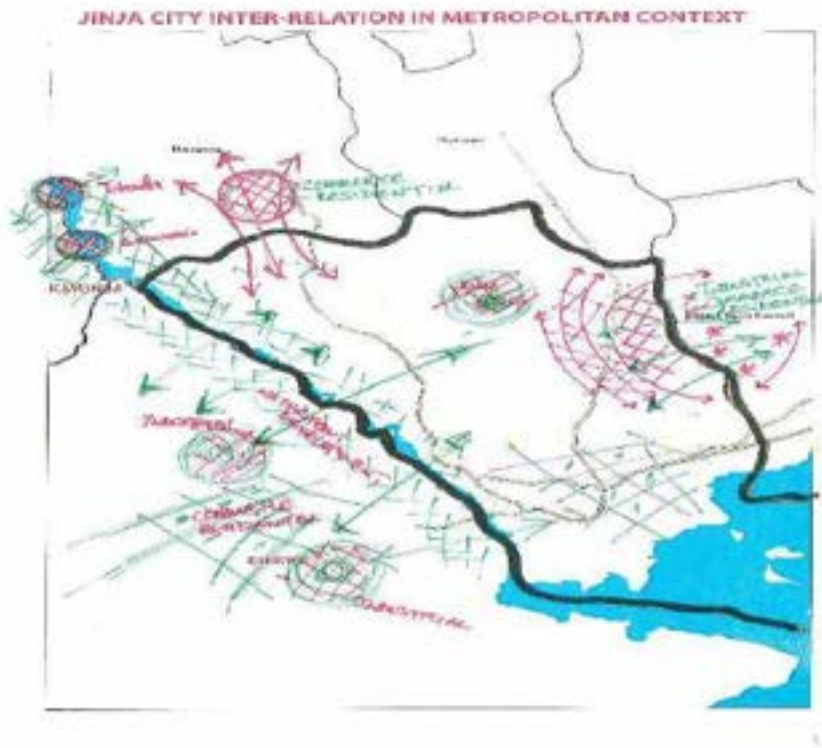


**Busowoko falls**



**Itanda falls**

### 5.11.2. Peripheral proposals





**Jinja City Vs Periphery Planning:  
Industrial Dev'ts**



**Jinja City Vs Periphery Planning:  
Tourism Dev'ts**



Jinja City Vs Periphery : Commerce & Trade	Infrastructure Distribution
	

*Table 6.2: Peripheral land use proposals.*

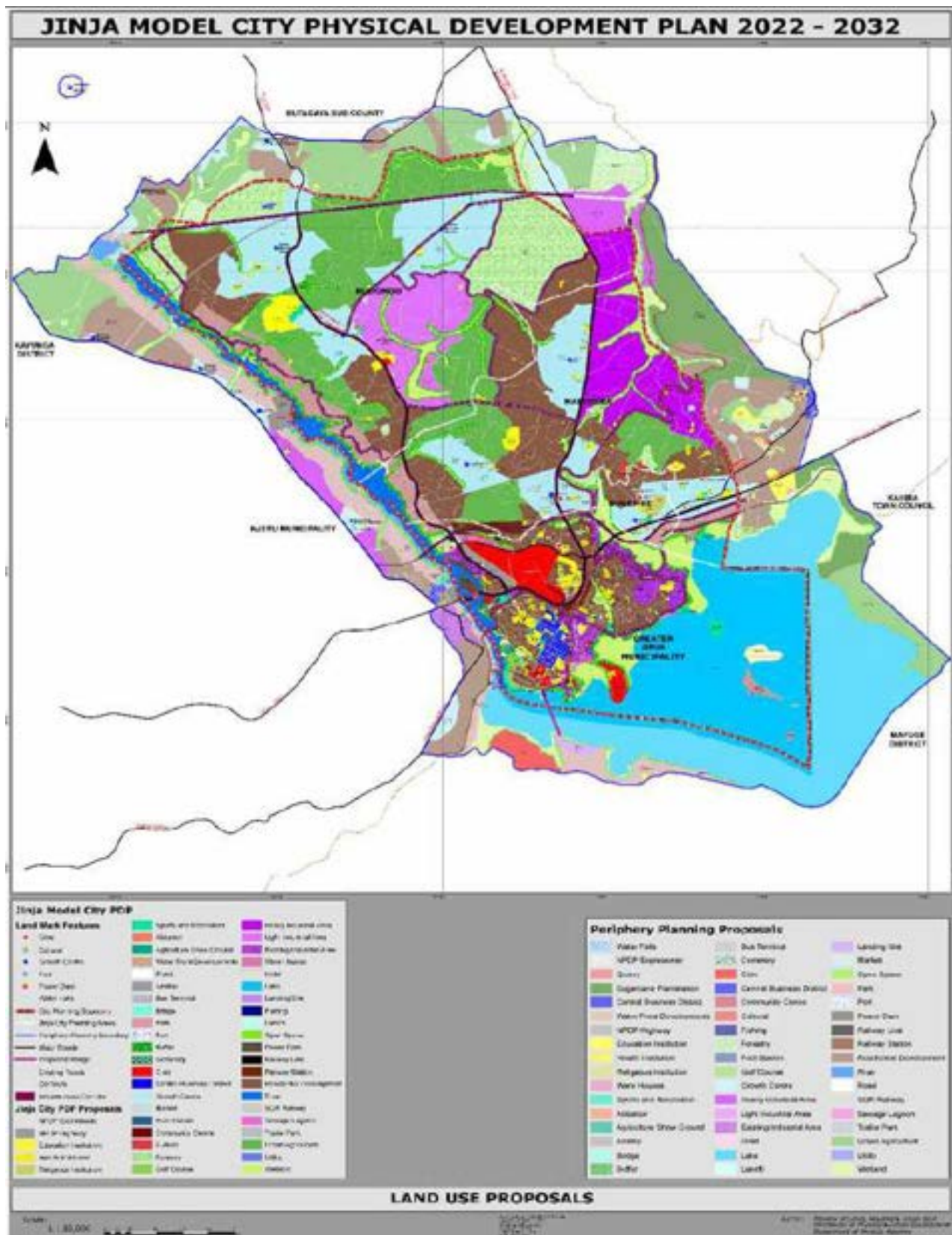
This metropolitan approach to planning was highly appreciated not only by the planning team but also the stakeholders from the Local Governments in the periphery of Jinja city. This approach helps to identify areas of influence in the periphery of the planning area through harnessing the synergies between the neighbouring areas and the area being planned. Thus, the proposals made in the PDP become more realistic and implementable.



<i>Item</i>	<i>Land use</i>	<i>Number</i>	<i>Area</i>			<i>Percentage</i>
			<i>Acres</i>	<i>Hectare</i>	<i>Square Km</i>	
1	Community Centre	1	0.784	0.317	0.003	0.002
2	Bridge	1	0.942	0.381	0.004	0.003
3	Cultural	1	3.769	1.525	0.015	0.011
4	Landfill	1	5.444	2.203	0.022	0.016
5	Utility	2	6.328	2.561	0.026	0.019
6	Park	2	7.305	2.956	0.030	0.022
7	Market	3	7.323	2.964	0.030	0.022
8	Health Institution	3	9.076	3.673	0.037	0.027
9	Residential	2	12.855	5.202	0.052	0.039
10	Sewage Lagoon	2	14.070	5.694	0.057	0.000
11	Quarry	1	16.535	6.691	0.067	0.050
12	Commercial- Residential Mixed	1	21.952	8.883	0.089	0.066
13	Farming - Residential Mixed	2	23.625	9.561	0.096	0.071
14	Subsistence Farming	1	24.733	10.009	0.100	0.075
15	NPDP Highway	1	27.711	11.214	0.112	0.084
16	Open Space	12	32.415	13.118	0.131	0.098
17	Water Falls	2	38.951	15.763	0.158	0.118
18	Sports and Recreation	8	41.343	16.731	0.167	0.125
19	Airstrip	1	43.219	17.490	0.175	0.131
20	Religious Institution	8	47.579	19.255	0.193	0.144
21	NPDP Expressway	1	88.683	35.889	0.359	0.268
22	Trading Centre	1	107.867	43.652	0.437	0.326
23	Landing Site	2	112.484	45.521	0.455	0.340
24	Central Business District	7	121.664	49.236	0.492	0.368
25	Power Dam	4	168.911	68.356	0.684	0.511
26	Education Institution	22	266.773	107.959	1.080	0.807
27	Industrial	15	281.385	113.873	1.139	0.851
28	Railway Line	9	317.015	128.292	1.283	0.959
29	Road	8	351.067	142.072	1.421	1.062
30	Civic	3	393.631	159.297	1.593	1.190
31	River	22	439.251	177.759	1.778	1.328

32	Heavy Industrial Area	9	1256.132	508.339	5.083	3.799
33	Forestry	19	1369.898	554.378	5.544	4.143
34	Buffer	32	1383.053	559.702	5.597	4.182
35	Wetland	26	1516.935	613.882	6.139	4.587
36	Growth Centre	35	1605.951	649.905	6.499	4.857
37	Water Front Developments	36	2470.068	999.601	9.996	7.470
38	Sugarcane Plantation	8	2537.510	1026.894	10.269	7.674
39	Urban Agriculture	31	4927.833	1994.223	19.942	14.902
40	Residential Development	62	4980.094	2015.372	20.154	15.060
41	Lake	1	7985.474	3231.607	32.316	24.149
	<b>Total</b>	<b>408</b>	<b>33067.637</b>	<b>13381.998</b>	<b>133.820</b>	<b>100.000</b>

### 5.11.3. The Jinja City Draft Integrated Physical Development Plan.



## **CHAPTER 6. IMPLEMENTATION STRATEGIES.**

### **6.1 Planning Strategy.**

The model physical development plan was developed cognizant of already existing development plans:

#### **6.1.1 The National Development Plan**

The NDP prioritizes five key elements and these are; agriculture, tourism, minerals especially oil and gas, infrastructure and human capital development. The model plan enhanced the natural opportunities within Jinja such as the existence of Lake Victoria to promote tourism activities. Proposals have been made for information, communication, technology (ICT) and innovation centres to promote human capital development not only within Jinja but in the country.

#### **6.1.2 National Physical Development Plan**

In the NPDP, the Eastern region where Jinja lies is designated for agricultural and industrial use. Extracts of this regional component have been incorporated into the Model physical development. Proposals for industrial development have been highlighted as well as agricultural zones from which raw materials will be obtained to support the industrial development. Such strategies are aimed at enhancing sustainability of the industrial development.

#### **6.1.3 The Five-year Development Plan.**

The proposals in the five-year Development Plan have been revisited; the spatial proposals have been mapped as described in the table below.

<b>Plan Proposals (5yr Development Plan)</b>	<b>Location</b>	<b>Plan Proposals Addressed in Physical Development Plan</b>	<b>Location</b>	<b>Remarks</b>	<b>Source of Funds</b>
Construct one market every year in all divisions.	JCC	Upgrading of market infrastructure/facilities	In all growth centres	Markets in the city should be upgraded to the desired city standards.	City council
Rejuvenate / promote the EPC (Environment Pedagogic Center	JCC	Proposed university.	Budondo-Buyala		TBD
Establish an equipped and well facilitated research centre.	JCC	Innovation hub (research centre)	Budondo		TBD
Construction of abattoir at Mafubira Market	Mafubira SC				City council
Gazette a community market in the area	Wanyama	Upgrading of market infrastructure/facilities	In all growth centres	Markets in the city should be upgraded to the desired city standards.	TBD



Construction of USE school	Budhumbuli west		Budondo and Mafubira	Construction of more schools as per the demand of the population in compatible land use zones	TBD
Construction of USE school	Nakanyonyi		Budondo and Mafubira	Construction of more schools as per the demand of the population in compatible land use zones	TBD
		Proposed Cemetery	Budondo		City council
		Proposed Landfill	Budondo Musima-bugembe		City council
		More residential zones	Budondo and Mafubira	Densification/ compact/ vertical development within the Central Business District (CBD)	
		Urban agriculture	Budondo and Mafubira		Private and City Council
		Proposed buffer zones for ecologically	Lake Victoria and river Nile shores Wetlands etc	River Nile 100m, Lake 100m, inland swamps 30-50m, swamps connected to the lake and river 50m. Those swamps that do	City council

		sensitive areas		not touch the rivers and lake 30m	
		Tourism sites	Kisima and Samoka islands Commonwealth War cemetery Kubiri cemetery Jinja port	The tourism facilities are spatially located on the plan, however there is need to come up with an implementation strategy to cover this avenue	City council and mins of Tourism
		Tourism corridor	Along the river bank and the lake.		City council
		Industrial zones	(Heavy Industries) Nakabango, Mutai, Musooli-Buwekula (Light Industries) Kibibi, Namizi and Buwaji	Create policies that would attract investment incentives, secure land for industrial development.	UIA and City Council
		City hospital Upgrade of Health centre IIIs to IVs and IIs to IIIs	Budondo Lwanda, Lukolo, Wakitaka		

		Proposed sewer lagoon	Bufuula (Budondo) Nsuube		City Council
		Proposed Community centers	All division headquarters		City council
		Proposed Cultural site (museum)	Mpumude hill		City council and Min of Tourism
		Proposed city abattoir			City Council
		Open spaces	All existing open spaces	The plan has maintained all open spaces. However, there should be a parks' maintenance plan for all open spaces.	City council
		Parking		Upgrade and expand the taxi bordering Napia Market. Include onsite underground parking for all storied buildings.	City council
		Proposed Bus terminal	Kimaka	To decongest the city centre	City Council

		Propose water reservoir Budondo - Nakanyonyi	Budondo/ Nakanyonyi		UNWSC
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## 6.2 Plan implementation strategy

Plan implementation is often resource constraining, not all resources can be attained within the same time frame. Therefore, strategies have to be derived to lessen the burden of plan implementation or risk not implementing the plan. The following plan implementation strategies are therefore suggested:

### 6.2.1 Phased implementation

A Phased plan implementation process is often a desired approach where priorities are identified and further categorized to the most urgent and pressing needs. The desired phased implementation therefore involves a close integration with the other planning cycles within the city. The city is advised to phase activities into a 5-year calendar period and further into pressing needs within the 1-year annual budget period.

### 6.2.2 Public Private Partnerships

Partnerships create possibilities of implementing projects which would rather be different if there were no partners. Public Private Partnerships are a collaborative effort, involving people and organisations from the public, private sectors, NGOs and the community, and therefore involving a coalition of interests, they work together towards mutually agreed upon objectives and for mutual benefit. Partners range from: the government, non-governmental and voluntary organizations, Developers, financiers and investors, International business, national private firms, Informal private operators, The consumer or end user, Donors and consultants, the general public or civil society.

## 6.3 Key institutions for planning, implementation and enforcement of compliance

No.	Institution	Role	Tasks/ responsibilities
1.	Directorate of Physical Planning and Urban Development	Over all supervision	<ul style="list-style-type: none"><li>- Physical Planning</li><li>- Policy formulation</li><li>- Monitoring and Evaluation</li></ul>
2.	National Physical Planning Board	<ul style="list-style-type: none"><li>- Planning</li><li>- Enforcement</li></ul>	
3.	Physical Planning Committees	<ul style="list-style-type: none"><li>- Planning</li><li>- Implementation</li><li>- Enforcement</li></ul>	

#### 6.4 Priority action areas and implementation schedule.

Goal	Priority recommendations	Responsible party	Potential partners	Funding sources	Short term (0-5 years)	Long Term (5-10years)
Boost industrial development.	Preparation of the Industrial masterplan.	Jinja City	Private partners	GOU	x	
Enhance connectivity in the city	Prepare a transport masterplan for the city	Jinja City	Development partners	GOU and development partners	x	
	Opening of roads.	Jinja City	Private partners	GOU		x
Boost local economy	Construction of the proposed markets in Namulesa-Mafubira and Budondo	Jinja City	Private partners	GOU		x
	Construct abattoirs in Bugembe, Mafubira and Budondo.	Jinja City	Private partners	GOU		x
Boost the tourism sector	Preparation of a tourism master plan for the city	Jinja City	Private partners	GOU	x	
	Develop waterfront activities along the Nile	Jinja City	Private partners and donors	GOU		x
Ensure effective land subdivision.	Preparation of neighborhood/detailed plans for all wards in the city.	Jinja City	Private partners	GOU	x	
Promote skilling of the population	Develop the proposed university in Budondo	Jinja City	Private partners	GOU		x
	Develop the planned agricultural innovation centre in Budondo					x

	Develop the proposed Information Technology centre in Kabowa- Budondo	Jinja City	Private partners	GOU		x
Promote hygiene and sanitation in the city.	Develop the proposed landfills in Budondo and the disposal site in Musima- Bugembe	Jinja City	Private partners	GOU		x
	Prepare the drainage master plan for the city	Jinja City	Private partners	GOU	x	

### 6.5 Plan Implementation Monitoring and Evaluation.

Preparing Physical Development Plans is a highly participatory process with the aim of ensuring that implementation will be done with ease since the community aspirations for developing their neighborhoods are well captured. In the same way, monitoring and evaluation of plan implementation should be done in a participatory manner since the developments are directly on individual land.

Implementation of public facilities is often done by the local authorities, as discussed above, often in a phased approach while individual developments are likely to take a longer period and faced with uncertainty in terms of time frame.

The monitoring of plan implementation can be done across several levels thus: MLHUD, LG, Development partners and the community. The following strategies may be adopted:

1. The Department of Land use Compliance and Regulation in the Ministry of Lands, Housing and urban Development is directly in charge of monitoring and evaluating the performance of PDPs at the local government level. The department has derived a tool to evaluate the performance of plans thus how developments are corresponding to the land use plan. This evaluation process is followed by rewards and sanctions.
2. The Local government authorities may establish a steering committee of technical and political staff to closely monitor plan implementation following the phased approach that has been developed. This may be followed by routine feedback in meetings to ensure that the other staff members are involved and informed of the progress.
3. Development partners, civil society organizations are very essential in plan implementation but also monitoring and evaluation. Civil society organizations act in the interest of the community and more importantly represent the interest of those marginalized

groups who often are neglected either intentionally or unaware. The development partners and civil society may be involved at the local community steering committee.

4. The local community is paramount in plan implementation process. It is at this stage that they witness how their aspirations are being transferred from paper to ground. The local community have an established committee that monitors and evaluates the plan implementation. This committee may have local authority representatives who eventually report to the local government committee.

There should a well-established reporting process across the various levels for purposes of close monitoring and accountability. The general community should be engaged through community meetings/ dialogues/ bazaars to attain their opinions about the PDPs implementation.

## **6.6 Recommendations and Conclusions.**

The model city planning process was highly participatory and conducted with a careful reflection to represent urban issues with a clear perspective of the community aspirations for the development of Jinja City.

During the planning process, there was a holistic analysis of the urban fabric in Jinja which informed the land use proposals to address the spatial and non-spatial aspects with the aim of producing a plan that is sustainable, implementable but also improves the urban quality of life. The vision and mission of the city were heavily relied upon to ensure that the mandate of the local authority is considered into the planning process which will eventually ease the plan implementation process.

The planning process ensured an integrated physical and economic planning approach to capture the planning processes but also prospects in a joint manner which has not been done in past and as such stalling plan implementation processes.

The MLHUD team has worked diligently with the City technical and political team to prepare a model city plan. It is envisaged that the participatory process and approaches utilized during the process will inform or will be replicated while planning other cities within Uganda.

The team highly recommends that structures should be put in place to ensure that the plan is implemented, sector committees at various levels are encouraged for monitoring and evaluation. The urban authority should embark vigorously on the process of resource mobilization to ensure that the plan is implemented.



## **APPENDICES.**

### **PROPOSED CRITERIA FOR SELECTION OF THE MODEL TOWN.**

#### **1<sup>st</sup> Sieve (assessment to be done before team proceeds to the field)**

1. Availability of orthophotos with a high-level resolution and accuracy of less than 50 cm.
2. Municipality falls within the pilot area for SLAAC with operational MZO
3. A Municipality where national level priorities are planned, such as the Standard Gauge Railway, industrial development hub, future regional city, etc.
4. The Municipality's PDP should have been completed not less than 5 years ago.
5. A Municipality where Physical Planning intervention has not been initiated with a running contract

#### **2<sup>nd</sup> Sieve (To be conducted in the field on 4 Municipalities that will emerge best in the first sieve)**

6. Evidence of plan implementation initiatives;
  - a. An item on community sensitization (in relation to spatial planning) in its budget,
  - b. Identification of priority areas in the plan implementable through PPPs
  - c. Other action points directly picked from the PDP for implementation
7. The Municipality should be having a functional Municipal Development Forum
8. Should be having a fully constituted Physical Planning Committee that met not less than 4 times in the last FY.
9. Evidence of byelaws relevant to plans implementation

## DATA COLLECTION TOOL.

S/N	ASPECT	ISSUES TO CONSIDER	Sources of data
1.	<b>Population</b>	Total population of the community Age of the population (break into at least 3 groups, children up to the age of 18, middle aged, and those 65 and above) Employment patterns of the population Analyse the trends in all of these data at least for the past 30 years.	Review of census data (UBOS)
2.	<b>Housing</b>	Average household size Sex and ethnicity of household heads Information on housing stock i.e. Occupant ownership vs rentals Value of housing Number of rooms per unit	Field surveys FGDs
3.	<b>Economy</b>	Per-capita income Wages and salaries Employment Poverty thresholds Income distribution Data on commuting	Census data UBOS Secondary data
4.	<b>Natural environment</b>	Soil types Slope Vegetation Floodplains and wetlands Geological features Particular plant species Wildlife habitat	Ministry of water and environment Natural resource Department, Jinja EIAs for local projects <b>Floodplain maps if any</b>
5.	<b>Circulation</b>	Capacity of major roads Current traffic load or level of service of the roads	Engineering Department of JMC <b>Get available maps if any</b>

6.	<b>Community facilities and services</b>	Location of fire stations, libraries, government offices, police stations Availability of water, electricity, telephone services	UMEME, UETCL, NWSC
7.	<b>Schools</b>	Location and capacity of schools Planned schools and planned school sites if any	Education department
8.	<b>Parks, open space and green infrastructure</b>	How many parks and open spaces are in the Municipality and their size vis-à-vis the population  How many tennis courts, swimming pools, soccer fields for example are in the Municipality vis-à-vis the population  Linkages and accessibility to the parks or open spaces. Are there good pedestrian routes between neighborhoods and parks? Between schools and nearby parks?	FGDs Field surveys
9.	<b>Other inventories</b>	E.g. Historic preservation, archeological resources, tourist facilities	JMC