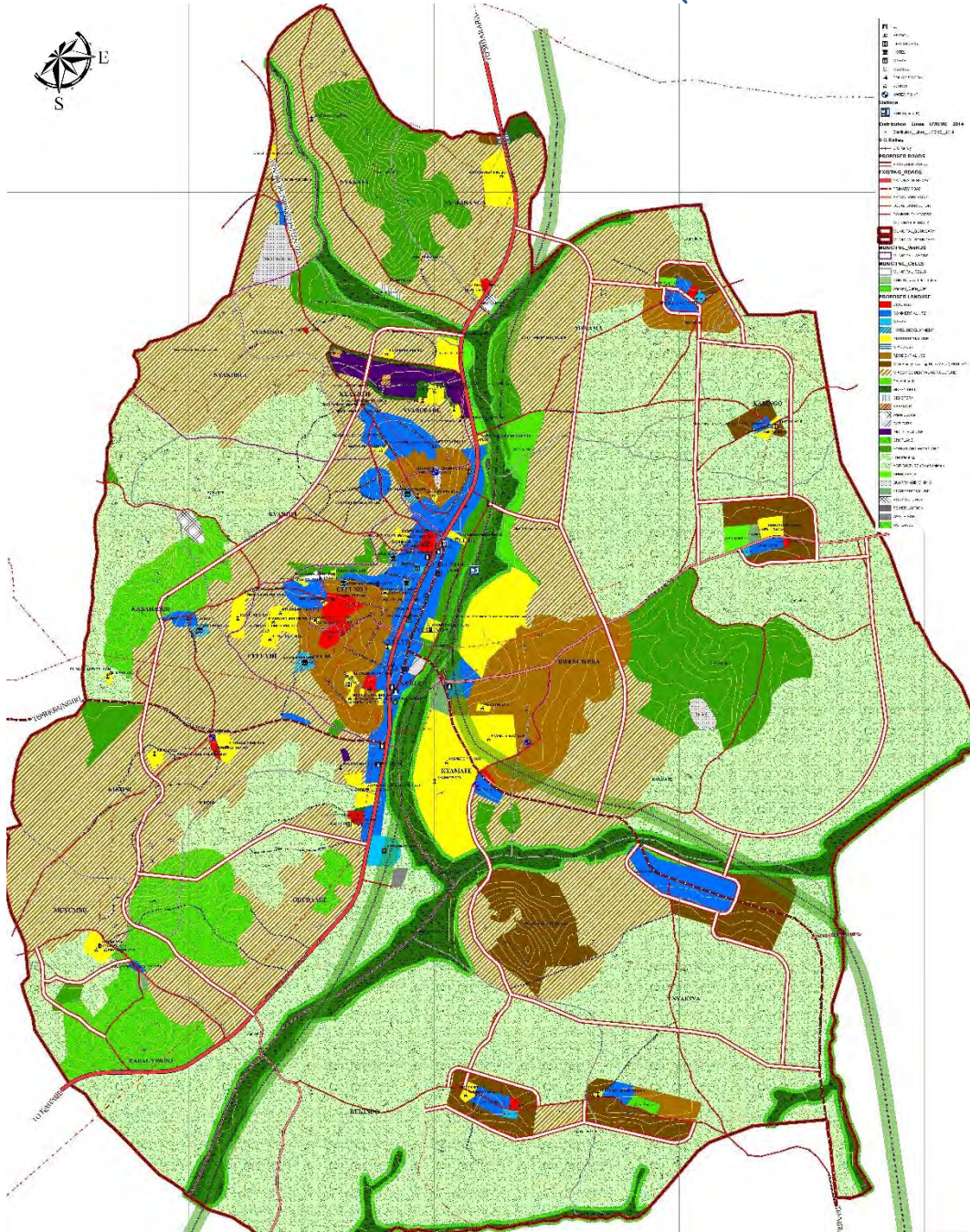




NTUNGAMO MUNICIPALITY PHYSICAL DEVELOPMENT PLAN (2019 - 2029)



Final Report

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TABLE OF CONTENTS

<i>Forward</i> -----	x
<i>Acknowledgement</i> -----	xi
<i>List of Abbreviations and Acronyms Used</i> -----	xii
<i>Executive Summary</i> -----	xiii
PART ONE -----	1 -
CHAPTER ONE: INTRODUCTION AND BACKGROUND -----	1 -
1.1. Introduction-----	1 -
1.2. Structure and Content of the Report-----	2 -
1.3. Background to the Project -----	3 -
1.4. Scope of Work-----	4 -
1.5. Objective of the Assignment -----	5 -
1.5.1. <i>General Objectives</i> -----	5 -
1.5.2. <i>Specific Objectives</i> -----	5 -
1.6. The Purpose of Ntungamo Municipality PDP (2019 – 2029)-----	5 -
1.7. Planning Area Coverage-----	6 -
1.8. Location of the Planning Area-----	6 -
1.9. Historical Development of Ntungamo Municipality -----	7 -
1.10. The Physical Environment -----	7 -
1.10.1 <i>Topography</i> -----	7 -
1.10.2 <i>Vegetation</i> -----	7 -
1.10.3. <i>Geology and Soils</i> -----	7 -
1.10.4. <i>Climate</i> -----	7 -
1.10.5. <i>Wildlife</i> -----	7 -
1.10.6. <i>Mineral Resources</i> -----	8 -
1.10.7. <i>Wetlands</i> -----	8 -
1.10.8. <i>Land tenure</i> -----	8 -
1.11. Urbanization Trends in Uganda 1969 to 2014 -----	8 -
1.12. Existing Administration Framework -----	10 -
1.13. Existing Administrative Units-----	10 -
1.14. Previous Planning Interventions-----	10 -
1.15. Regional Planning Context-----	11 -
CHAPTER TWO: ASSIGNMENT METHODOLOGY -----	14 -
2.1. Introduction-----	14 -
2.2. Reconnaissance Surveys -----	20 -
2.3. Mobilization and Consultations with stakeholders -----	20 -
2.4. Literature Review-----	22 -
2.5. Visioning Process-----	23 -
2.6. Collection of Spatial Data and Land use Inventories -----	23 -
2.6.1. <i>Physical Surveys</i> -----	23 -
2.6.2. <i>Collection and Review of Spatial Data</i> -----	24 -
2.6.3. <i>Land use Inventory</i> -----	24 -
2.6.4. <i>Methods of Data Collection</i> -----	25 -
2.6.5. <i>Tools for Data Collection</i> -----	25 -
2.7. Topographic Surveys -----	25 -
2.8. Cadastral Surveys -----	26 -

Ntungamo Municipality Physical Development Plan (2020 – 2030)

2.9.	Detail Capture -----	- 28 -
2.10.	Spatial Data Processing and Analysis -----	- 28 -
2.11.	Socio-economic and Household Surveys -----	- 28 -
2.12.	Training of Research Assistants -----	- 29 -
2.13.	Review of Ntungamo Municipality Structure Plan (2008 – 2018) -----	- 29 -
2.14.	Stakeholder Mapping and Analysis -----	- 30 -
2.15.	Quantitative Data Processing and Analysis -----	- 30 -
2.16.	Preparation of base maps -----	- 30 -
2.17.	Preparation of Potentials and Constraints Map -----	- 31 -
2.18.	Preparation of 1 st Draft Ntungamo Municipality PDP -----	- 31 -
2.19.	Presentation of 1 st Draft Ntungamo Municipality PDP to stakeholders -----	- 31 -
2.20.	Display of the Draft Ntungamo Physical Development Plan and Report -----	- 35 -
2.21.	Preparation of the Situation Analysis Report -----	- 35 -
2.22.	Preparation of the Physical Development Plan Report -----	- 35 -
 CHAPTER THREE: POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK -----		- 36 -
3.1.	Policy Framework -----	- 36 -
3.1.1.	<i>The Uganda's Vision 2040</i> -----	- 36 -
3.1.2.	<i>The National Physical Development Plan (NPDP 2018 – 2040)</i> -----	- 36 -
3.1.3.	<i>The Third National Development Plan (NDP III): 2020/21 – 2024/25</i> -----	- 36 -
3.1.4.	<i>The National Urban Policy, 2016</i> -----	- 37 -
3.1.5.	<i>The Uganda National Land Policy, 2013.</i> -----	- 37 -
3.1.6.	<i>The National Land Use Policy, 2006.</i> -----	- 37 -
3.1.7.	<i>The National Environment Management Policy, 1994.</i> -----	- 37 -
3.1.8.	<i>The National Policy for Conservation and Management of Wetland Resources (1995)</i> -----	- 38 -
3.1.9.	<i>National Policy on Tourism Development</i> -----	- 38 -
3.2.	Legal Framework -----	- 38 -
3.2.1.	<i>The 1995 Constitution of the Republic of Uganda.</i> -----	- 39 -
3.2.2.	<i>The Local Government Act (CAP 243)</i> -----	- 39 -
3.2.3.	<i>The Physical Planning Act - 2010</i> -----	- 39 -
3.2.4.	<i>The Land Act (CAP 227)</i> -----	- 39 -
3.2.5.	<i>The National Environment Act (CAP 153)</i> -----	- 40 -
3.2.6.	<i>The Forest Act, 1999</i> -----	- 40 -
3.2.7.	<i>The National Planning Authority Act (2002)</i> -----	- 41 -
3.2.8.	<i>The Public Health (Building) Rules (Statutory Instrument 281 – 1)</i> -----	- 41 -
3.3.	Planning Regulations -----	- 41 -
3.3.1.	<i>The Physical Planning Regulations</i> -----	- 41 -
3.3.2.	<i>The National Physical Planning Standards and Guidelines, 2011</i> -----	- 41 -
3.3.3.	<i>The Wetlands, River Banks, and Lakeshores Management Regulations, 2000.</i> -----	- 41 -
3.3.4.	<i>The National Environment (Noise Standards and Control) Regulations</i> -----	- 42 -
3.3.5.	<i>The National Environment Impact Assessment Regulations, 1998</i> -----	- 42 -
3.3.6.	<i>The National Environment Waste Management Regulation, 1998</i> -----	- 42 -
3.4.	Institutional Framework -----	- 42 -
3.4.1.	<i>The Directorate of Physical Planning and Urban Development</i> -----	- 42 -
3.4.2.	<i>National Physical Planning Board</i> -----	- 43 -
3.4.3.	<i>National Environment Management Authority (NEMA)</i> -----	- 43 -
3.4.4.	<i>Ntungamo Municipal Council Physical Planning Committee</i> -----	- 43 -

CHAPTER FOUR: SITUATION ANALYSIS	- 45 -
4.1. Demographic Characteristics of Ntungamo Municipality	- 45 -
4.1.1. Ntungamo Municipality Projected Population (2019 – 2029)	- 45 -
4.1.2. Marital Status	- 48 -
4.1.3. Population Structure	- 48 -
4.1.4. Ethnicity of residents	49
4.1.5. Place of Birth	50
4.1.6. Duration of stay	50
4.1.7. Education and Literacy	51
4.2. Household Characteristics	52
4.2.1. Energy for Lighting	52
4.2.2. Energy for Cooking	52
4.3. Housing Conditions	53
4.3.1. Type of Shelter	53
4.3.2. Nature of Shelter	53
4.3.3. Occupancy of tenure	53
4.3.4. Construction Materials	54
4.4. Existing Infrastructure Services and Utilities	55
4.4.1. Electricity/Energy Sources	56
4.4.2. Information, Communication, and Technology	56
4.4.3. Water Sources	56
4.5. Sanitation Facilities	58
4.5.1. Availability of toilet facility	58
4.5.2. Sewage Management System	- 59 -
4.5.3. Abattoir	- 59 -
4.5.4. Solid Waste Disposal	- 59 -
4.6. The Local Economic Development (LED)	- 60 -
4.6.1. Key Economic Activities in the town	- 61 -
4.6.2. Principal occupation of household head	- 62 -
4.6.3. Occupation of the working population	- 63 -
4.6.4. Population not working	- 63 -
4.6.5. Government Programmes to enhance household incomes	- 63 -
4.6.6. Summary of livelihood analysis and income levels	- 63 -
4.6.7. Conclusion	- 64 -
4.7. Development Potentials	- 64 -
4.7.1. Location Factor	- 64 -
4.7.2. Existing Infrastructure Services	- 64 -
4.7.3. Land for future developments	- 65 -
4.7.4. Agriculture	- 65 -
4.7.5. Forested areas	- 65 -
4.7.6. Existing Developments	- 65 -
4.7.7. Tourism Potentials	- 65 -
4.7.8. Favourable Climate	- 65 -
4.7.9. Minerals	- 65 -
4.7.10. Political and Community Will	- 66 -
4.8. Development Constraints/Challenges	- 66 -
4.9. HIV/AIDS	- 66 -
4.10. Gender Concerns and Mainstreaming	- 67 -
4.11. Review of Ntungamo Municipality Structure Plan (208 – 2018)	- 67 -

Ntungamo Municipality Physical Development Plan (2020 – 2030)

4.11.1.	<i>Analysis of the Structure Plan 2008 – 2018</i>	- 68 -
4.11.2.	<i>Ntungamo Municipality Structure Plan (2008 – 2018) Implementation Status</i>	- 68 -
4.12.	<i>Existing Land Use Pattern</i>	74
4.12.1	<i>Commercial developments</i>	77
4.12.2	<i>Human Settlement Zones</i>	78
4.12.3	<i>Mixed use developments</i>	79
4.12.4.	<i>Industrial developments and activities</i>	79
4.12.5.	<i>Agriculture</i>	80
4.12.6.	<i>Forest areas</i>	81
4.12.7.	<i>Swamp/Wetlands</i>	81
4.12.8.	<i>Educational Services</i>	82
4.12.9.	<i>Health Facilities</i>	83
4.12.10.	<i>Places of Worship/Religious Institutions</i>	- 84 -
4.12.11.	<i>Market Centers</i>	85
4.12.12.	<i>Recreation Facilities</i>	86
4.12.13.	<i>Civic facilities</i>	87
4.1.3.	<i>Analysis of Existing Transport Systems</i>	87
4.13.1.	<i>Road Network</i>	88
4.13.2.	<i>Parking Facilities</i>	89
4.13.3.	<i>The Existing Transport Modes</i>	90

CHAPTER FIVE: PLAN GOALS AND PRINCIPLES ----- 93

5.1.	<i>SWOT Analysis</i>	93
5.2.	<i>Vision and Mission</i>	93
5.3.	<i>Planning Goal and Objectives</i>	93
5.3.1.	<i>Planning Goal</i>	93
5.3.2.	<i>Planning Objectives</i>	93
5.4.	<i>Overall Planning Principles</i>	94
5.4.1.	<i>Community Participation</i>	94
5.4.2.	<i>Equity and social choice</i>	94
5.4.3.	<i>Environmental Considerations</i>	94
5.4.4.	<i>Compatibility</i>	94
5.4.5.	<i>Innovativeness and adaptability</i>	94
5.4.6.	<i>Factual</i>	95
5.4.7.	<i>Flexibility</i>	95
5.4.8.	<i>Integrative</i>	95
5.4.9.	<i>Statutory Controls</i>	95
5.4.10.	<i>Car Parking/Service Area</i>	95
5.5.	<i>Planning Needs of Ntungamo Municipality</i>	95

CHAPTER SIX: NTUNGAMO MUNICIPALITY PDP (2019 – 2029) PROPOSALS ----- 97

6.1.	<i>Commercial Zone</i>	- 100 -
6.2.	<i>Mixed Use Developments</i>	- 101 -
6.3.	<i>Market Centres</i>	- 101 -
6.4.	<i>Residential areas</i>	- 101 -
6.5.	<i>Industrial Zones</i>	- 104 -
6.6.	<i>Civic Centre</i>	- 104 -
6.7.	<i>Tourism Potentials</i>	- 104 -
6.8.	<i>Cultural and Craft Centre</i>	- 104 -

Ntungamo Municipality Physical Development Plan (2020 – 2030)

6.9.	Institutional zones	105
6.9.1.	Educational facilities	105
6.9.2.	Health Institutions and Facilities	105
6.9.3.	Religious Centres and Places of Worship	105
6.9.4.	Police Posts	105
6.10.	Recreational facilities	106
6.11.	Agriculture Areas	107
6.12.	Agroforestry Areas	108
6.13.	Public Cemetery	109
6.14.	Special Areas	109
6.15.	Works and Technical Services	110
6.15.1.	Roads	110
6.15.2.	Bus and Taxi Parking Facilities/ Terminals	111
6.15.3.	Town Abattoir Site	112
6.15.4.	Standard Gauge Railway	113
6.16.	Water Catchment/Buffer Areas	115
6.17.	Environment Considerations	115
6.17.1.	Beauty and Aesthetics of the Town.	115
6.17.2.	Pollution	115
6.17.3.	Drainage Master Plan for the Municipality	116
6.17.4.	Solid Waste Management	117
PART TWO		118
CHAPTER SEVEN: LOCAL PHYSICAL DEVELOPMENT PLAN (2019 – 2024)		118
7.1.	Objectives of the Municipality LPDP	118
7.2.	Area Coverage and detailed plan area	118
7.3.	Plan Design Principles	118
7.3.1.	Neighbourhood Concept	118
7.3.2.	Accessibility and Interconnectivity	118
7.3.3.	Environmental Quality	118
7.3.4.	Promotion of Employment Opportunities	119
7.3.5.	Compatibility of uses	119
7.3.6.	Places for People	119
7.3.7.	Enrich the Existing Situation	119
7.3.8.	Design for Change	119
7.3.9.	Hierarchy of Service Provision	119
7.3.10.	Flexibility	119
7.3.11.	Innovativeness and Adoptability	120
7.4.	Ntungamo Municipality Local Physical Development Plan (2019 – 2024) Proposals	120
7.4.1.	Commercial developments	122
7.4.2.	Market	123
7.4.3.	Hotel/MICE	123
7.4.4.	Institutional developments	124
7.4.5.	Human Settlement Zones	125
7.4.6.	Mixed Agriculture and Residential Zones	127
7.4.7.	Social Facilities	127
7.4.8.	Civic Areas	127
7.4.9.	Environmental Areas	128
7.4.10.	Roads	128

7.4.11.	<i>Solid Waste Management</i>	130
7.4.12.	<i>Proposed Utilities</i>	131
CHAPTER EIGHT: DEVELOPMENT SPECIFICATIONS		132
8.1.	On Street parking requirements	132
8.2.	Off-street parking requirements	132
8.2.1.	<i>Off-Street Parking Guidelines and Standards</i>	132
8.2.2.	<i>Parking Requirements for Residential Areas</i>	132
8.2.3.	<i>Parking Requirements for Commercial Developments</i>	133
8.2.4.	<i>Hotels and motels</i>	133
8.2.5.	<i>Parking Requirements for Restaurants and club houses</i>	133
8.2.6.	<i>Parking Requirements for Community Centre and Places of Worship</i>	133
8.3.	Guidelines for the Physically Handicapped Parking Stalls	133
8.4.	Guidelines for Bicycle Parking Stalls	134
8.5.	Key Issues during development approval	135
PART THREE		136
CHAPTER NINE: STRATEGIC INTERVENTIONS AND INVESTMENT PRIORITIES		136
9.1.	Improving Accessibility and Connectivity	136
9.2.	Health Facilities	136
9.3.	Educational Facilities	136
9.4.	Drainage Master Plan	137
9.5.	Local Economic Development	137
9.6.	Environment Management	137
9.7.	Indicative Implementation Costs for Ntungamo Municipality PDP	137
9.8.	Funding	139
CHAPTER TEN: PLAN IMPLEMENTATION STRATEGIES AND GUIDELINES		140
10.1.	Institutional Framework	140
10.2.	Legal Framework	140
10.3.	Capacity Analysis	140
10.4.	Implementation Strategies for the Physical Development Plan	141
10.4.1.	<i>Phasing</i>	141
10.4.2.	<i>Stakeholder Involvement</i>	141
10.4.3.	<i>Sensitization and Plan popularization</i>	141
10.4.4.	<i>Surveying, Property Valuation, and Land Acquisition.</i>	142
10.4.5.	<i>Road Construction</i>	142
10.4.6.	<i>Actors in the Implementation Process</i>	142
10.4.7.	<i>Other Projects.</i>	143
10.5.	Planning Control	144
10.6.	Monitoring and Evaluation	144
10.6.1.	<i>Monitoring</i>	144
10.6.2.	<i>Proposed Strategies for Monitoring</i>	145
10.6.3.	<i>Evaluation</i>	145
10.6.4.	<i>Proposed Strategies for Evaluation</i>	146
10.7.	Plan Approval Procedures	146
10.7.1.	<i>Development Control</i>	146
10.7.3.	<i>Infrastructural Requirements</i>	147
10.7.4.	<i>Planning Requirements</i>	147

CHAPTER ELEVEN: CONCLUSIONS AND POLICY RECOMMENDATIONS	149
11.1. Policy Recommendations	149
11.2. Technical Recommendations	149
11.3. General Recommendations	149
11.4. Specific Recommendations on Sanitation and Waste Management	150
11.5. Specific Recommendations on Environment	151
11.6. Recommendations for effective enforcement of Ntungamo Municipality PDP	152
11.6.1. <i>Planning Applications</i>	152
11.6.2. <i>Land subdivision</i>	153
11.6.3. <i>Plan Popularisation Strategy</i>	153
11.7. Conclusions	154

REFERENCES	156
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LIST OF APPENDICES	157
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<i>Appendix 1: Data required from selected stakeholders</i>	158
<i>Appendix 2: Attendance List for Municipality Councillors, Staff, and Chairperson LC I</i>	160
<i>Appendix 3: Attendance List for Municipal Council Staff and Councillors</i>	161
<i>Appendix 4: Attendance List for Eastern Division Stakeholders</i>	163
<i>Appendix 5: Attendance List for Central Division Stakeholders</i>	165
<i>Appendix 6: Attendance List for Western Division Stakeholders</i>	167

LIST OF MAPS

<i>Map 1: Location of Ntungamo District in Uganda</i>	4
<i>Map 2: Map of Ntungamo Municipality</i>	5
<i>Map 3: Satellite Imagery for Ntungamo Planning Area</i>	6
<i>Map 4: Ntungamo Town Structure Plan (2008 – 2018)</i>	11
<i>Map 5: Regional Context of Ntungamo Municipality</i>	13
<i>Map 6: Topographic Map of Ntungamo Municipality</i>	27
<i>Map 7: Ntungamo Municipality Structure Plan (2008 – 2018)</i>	69
<i>Map 8: Status of Implementation of Ntungamo Municipality Structure Plan (2008 – 2018)</i>	70
<i>Map 9: Comparison between Municipality Structure Plan (2008 – 2018) and Land Use, 2018</i>	71
<i>Map 10: Surveyed Plots within Ntungamo Municipality Structure Plan (2008 – 2018)</i>	72
<i>Map 11: Surveyed Plots within Ntungamo Municipality Detailed Plan Layout (2008 – 2013)</i>	73
<i>Map 12: Ntungamo Municipality Existing Land Use, 2018</i>	76
<i>Map 13: Existing Road Network</i>	92
<i>Map 14: Ntungamo Municipality Physical Development Plan (2019 – 2029)</i>	99
<i>Map 15: Proposed Transportation and utilities network in Ntungamo Municipality</i>	114
<i>Map 16: Ntungamo Municipality Local Physical Development Plan (2019 – 2024)</i>	121

LIST OF TABLES

<i>Table 1: Wards and LC I Villages within the Planning Area</i>	6
<i>Table 2: No. of Urban Centres by type, Census Year and Urban Population (1969 – 2014)</i>	9
<i>Table 3: Wards and LC I Villages within the Planning Area</i>	10
<i>Table 4: Summary of adopted methodology</i>	16
<i>Table 5: Data collected from various Institutions</i>	24
<i>Table 6: Sample Size for Household Surveys</i>	29
<i>Table 7: Presentation of Alternative Plans to Stakeholders</i>	31
<i>Table 9: Population Characteristics of the planning area by ward</i>	45
<i>Table 10: Population Projections up to 2030</i>	46

Ntungamo Municipality Physical Development Plan (2020 – 2030)

Table 11:	<i>Ntungamo MC Population Projections by Growth Scenarios</i>	- 47 -
Table 12:	<i>Marital Status of Respondents</i>	- 48 -
Table 13:	<i>Municipality population structure by age group</i>	49
Table 14:	<i>Duration of stay</i>	50
Table 15:	<i>Levels of Education</i>	51
Table 16:	<i>Source of energy for lighting</i>	52
Table 17:	<i>Sources of energy for cooking</i>	52
Table 18:	<i>Type of residential structures</i>	53
Table 19:	<i>Housing types</i>	53
Table 20:	<i>Roofing Materials used</i>	54
Table 21:	<i>Age of dwelling unit</i>	55
Table 22:	<i>Excreta Management Systems</i>	58
Table 23:	<i>Means of Emptying toilets</i>	58
Table 24:	<i>Mode of use</i>	- 59 -
Table 25:	<i>Garbage disposal</i>	- 60 -
Table 26:	<i>Summary of the Livelihood analysis</i>	- 64 -
Table 27:	<i>Existing land use in Ntungamo, 2019</i>	74
Table 28:	<i>Amount of land allocated to agricultural use</i>	81
Table 29:	<i>Distance to the nearest school</i>	83
Table 30:	<i>Distance to the nearest health facility</i>	- 84 -
Table 31:	<i>Religious Affiliations</i>	- 84 -
Table 32:	<i>Recreation/Leisure facilities</i>	86
Table 33:	<i>Minimum distance to the nearest recreation facility</i>	87
Table 34:	<i>Proposed Ntungamo PDP Land uses</i>	97
Table 35:	<i>Summary of plot sizes and plot coverage for residential settlements</i>	- 102 -
Table 37:	<i>Proposed road types and sizes.</i>	- 111 -
Table 38:	<i>Pollution Sources and Mitigation Measures</i>	- 116 -
Table 39:	<i>Summary of proposed land uses</i>	- 120 -
Table 40:	<i>Development parameters for commercial developments</i>	123
Table 41:	<i>Plot sizes and Plot Coverage for residential uses</i>	126
Table 42:	<i>Proposed road types and sizes.</i>	130
Table 43:	<i>Minimum width of Access Aisles</i>	132
Table 44:	<i>Recommended parking spaces for the physically handicapped drivers</i>	134
Table 45:	<i>Recommended Bicycle Parking Guidelines</i>	134
Table 46:	<i>Indicative Cost for Municipality Physical Development Plan (2019 – 2029)</i>	138
Table 47:	<i>Implementation Development options</i>	141
Table 48:	<i>Summary of the Implementation Strategy</i>	143

LIST OF FIGURES

Fig. 1:	<i>Ntungamo town's population growth</i>	- 9 -
Fig. 2:	<i>Reconnaissance survey activities and Findings</i>	- 20 -
Fig. 3:	<i>Stakeholders Consultative and Sensitization Meetings</i>	- 21 -
Fig. 4:	<i>IEC Strategy and Posters for Stakeholder Participation</i>	- 22 -
Fig. 5:	<i>Physical surveys and land use inventories</i>	- 24 -
Fig. 6:	<i>Training of Research Assistants</i>	- 29 -
Fig. 7:	<i>Presentation of Alternative PDPs to Councillors and Municipality Staff</i>	- 32 -
Fig. 8:	<i>Presentation of Alternative PDPs to Eastern Division Stakeholders</i>	- 32 -
Fig. 9:	<i>Presentation of Alternative PDPs to Central Division Stakeholders</i>	- 33 -
Fig. 10:	<i>Presentation of Alternative PDPs to Western Division Stakeholders</i>	- 34 -
Fig. 11:	<i>Stakeholders selecting the Preferred Plan</i>	- 35 -
Fig. 12:	<i>The Institutional Framework</i>	- 44 -
Fig. 13:	<i>Ntungamo MC Projected population 2019 – 2029</i>	- 47 -
Fig. 14:	<i>Tribes in Ntungamo Municipality</i>	49
Fig. 15:	<i>Occupancy of tenure</i>	54
Fig. 16:	<i>Wall materials used</i>	54
Fig. 17:	<i>Floor materials used</i>	55
Fig. 18:	<i>Power Supply in the municipality</i>	56
Fig. 19:	<i>Telecommunication masts</i>	56
Fig. 20:	<i>Water sources</i>	57
Fig. 21:	<i>Sources of drinking water</i>	57
Fig. 22:	<i>Distance to source of water</i>	58
Fig. 23:	<i>Sewerage Lagoons</i>	- 59 -

Ntungamo Municipality Physical Development Plan (2020 – 2030)

Fig. 24:	<i>Abattoir in the municipality</i> -----	- 59 -
Fig. 25:	<i>Solid Waste Management practices</i> -----	- 60 -
Fig. 26:	<i>Economic activities</i> -----	- 61 -
Fig. 27:	<i>Occupation of household heads</i> -----	- 62 -
Fig. 29:	<i>Existing land use in Ntungamo, 2019</i> -----	75
Fig. 30:	<i>Some of the Commercial Developments</i> -----	77
Fig. 31:	<i>Other economic activities</i> -----	78
Fig. 32:	<i>Existing developments in the municipality</i> -----	79
Fig. 33:	<i>Industrial developments</i> -----	80
Fig. 34:	<i>Agriculture practices</i> -----	81
Fig. 35:	<i>Swamp vegetation</i> -----	82
Fig. 36:	<i>Some of the schools</i> -----	82
Fig. 37:	<i>Ntungamo HC III Facility</i> -----	83
Fig. 38:	<i>Religious Institutions</i> -----	85
Fig. 39:	<i>Weekly Market Day along Mbarara - Kabale highway</i> -----	85
Fig. 40:	<i>Kabagyenda roadside market along Ntungamo - Kabale highway</i> -----	86
Fig. 41:	<i>Recreational Facilities</i> -----	86
Fig. 42:	<i>Civic facilities in the municipality</i> -----	87
Fig. 43:	<i>Primary Road</i> -----	88
Fig. 44:	<i>Secondary roads</i> -----	89
Fig. 45:	<i>Access roads in Ntungamo Municipality</i> -----	89
Fig. 46:	<i>Parking facilities</i> -----	90
Fig. 47:	<i>Modes of transport</i> -----	90
Fig. 48:	<i>Summary of Ntungamo PDP Land Uses</i> -----	98
Fig. 49:	<i>Concept of low density residential developments</i> -----	- 103 -
Fig. 50:	<i>Concepts for medium density residential developments</i> -----	- 103 -
Fig. 51:	<i>Setbacks for low density residential developments</i> -----	- 103 -
Fig. 52:	<i>Setbacks for medium density residential developments</i> -----	- 103 -
Fig. 53:	<i>Proposed recreational activities</i> -----	- 106 -
Fig. 54:	<i>Recommended Modern Agricultural Practices</i> -----	- 107 -
Fig. 55:	<i>Proposed Agro-forestry Activities</i> -----	- 109 -
Fig. 56:	<i>Proposed Arrangement of graves in a Public Cemetery</i> -----	- 109 -
Fig. 57:	<i>Proposed concept for the taxi park</i> -----	- 112 -
Fig. 58:	<i>Waste Collection Containers</i> -----	- 117 -
Fig. 59:	<i>Summary of proposed LPDP (2019 - 2024) land uses</i> -----	120
Fig. 60:	<i>Tourism Centre/Resort/Hotels/Apartments</i> -----	124
Fig. 61:	<i>High rise concepts for residential developments</i> -----	125
Fig. 62:	<i>Setback for residential developments</i> -----	125
Fig. 63:	<i>Concepts for High Density/Affordable Housing Residential Developments</i> -----	126
Fig. 64:	<i>Proposed recreational facilities</i> -----	128
Fig. 65:	<i>Cross sectional elements of Proposed Roads</i> -----	129
Fig. 66:	<i>Proposed Concept of Tree lined avenues</i> -----	129
Fig. 67:	<i>Recommended Bicycle Parking Guidelines</i> -----	135

FORWARD

It is with great pleasure that M/s Realtek Consults Ltd write a foreword to Ntungamo Municipality Physical Development Plan (2019 – 2029) Report, Ntungamo District Local Government. It is our hope that the outcome of this exercise will increase stakeholder's understanding of the Physical Development Plan and Physical Planning Process.

This will help in informing the communities that the planning activity is for the betterment and sustainable development of Ntungamo Municipality and her people, the environment and the future generation. It is hoped that Ntungamo Municipality will be enlightened and encouraged to implement the Physical Development Plan to guide the actual implementation of the proposals made in Ntungamo Municipality Physical Development Plan (2019 – 2029).

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For God and My Country

LIST OF ABBREVIATIONS AND ACRONYMS USED

AIDS	Acquired Immune Deficiency Syndrome
CAD	Computer Aided Design
CBD	Central Business District
CBOs	Community Based Organisations
GIS	Geographical Information Systems
GPS	Global Positioning System
HIV	Human Immuno Deficiency Virus
LC	Local Council
MoH	Ministry of Health
MoLG	Ministry of Local Government
MoLHUD	Ministry of Lands, Housing and Urban Development
MTN	Mobile Telecommunication Network
NEMA	National Environmental Management Authority
NGOs	Non-Governmental Organisations
NMC	Ntungamo Municipal Council
NPA	National Planning Authority
RCL	Realtek Consults Limited
PDP	Physical Development Plan
LPDP	Local Physical Development Plan
NPPB	National Physical Planning Board
NWSC	National Water and Sewerage Corporation
OWC	Operation Wealth Creation
PEAP	Poverty Eradication Action Plan
PPD	Physical Planning Department
SPSS	Statistical Package Social Science
STPS	Strategic Town Planning Studies
UEGCL	Uganda Electricity Generation Company Limited
UETCL	Uganda Electricity Transmission Limited
UNRA	Uganda National Road Authority
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MoWE	Ministry of Water and Environment
UPDF	Uganda People's Defence Forces
UPF	Uganda Police Force
MoW&T	Ministry of Works and Transport
UBC	Uganda Broadcasting Corporation
UEDCL	Uganda Electricity Distribution Company Limited
UIPP	Uganda Institute of Physical Planners

EXECUTIVE SUMMARY

This report presents Ntungamo Municipality Physical Development Plan (2019 – 2029). M/s Realtek Consult – a Ugandan registered firm that offers consultancy services in Physical Planning, Property Valuation, and Land Surveying Services, undertook the planning exercise.

The purpose of the study was to review Ntungamo Municipality Structure Plan (2008 – 2018) and prepare, through a consultative process, planning area proposals, Physical Development Plan and Local Physical Development Plan for central area covering 4 sq. km, for approval by Ntungamo Municipal Council Physical Planning Committee and the National Physical Planning Board (NPPB).

The report is organised in seven (7) Chapters. Chapter One profiles the planning area including location, background information to the planning activity, scope of the consultancy services and the previous planning interventions for Ntungamo Municipality are all discussed in this chapter.

Chapter Two describes Physical Development Plan and Strategic Interventions while Chapter Three discusses PDP proposal. Chapter four describes the Local Physical Development Plan (2019 – 2024) objectives and guiding principles, chapter five details the development plan proposals. Chapter six details the development specifications for the LPDP while the plan implementation guidelines, focusing on the Institutional and legal frameworks, Time frame, Indicative Implementation Costs, Implementation Strategies as well as investment priorities for the next 10 years and Guidelines on enforcement of development control mechanism, Monitoring and Evaluation are discussed in chapter seven.

Chapter eight is the conclusion and policy recommendations for the attainment of effective and sustainable physical planning of Ntungamo Municipality.

Background to the Planning Activity/ Process

This planning activity is not the first of its kind in Ntungamo Municipality. Several attempts have been made in providing guidance and development control in Ntungamo Municipality. The most recent attempt was in 2008 when 76 urban councils countrywide had Physical Development Plans prepared under the Second LGDP in 2008 with funding from the World Bank. The Ministry of Local Government (MoLG) in conjunction with the Ministry of Lands, Housing and Urban Development (MoLHUD), jointly supervised the exercise.

Often, urban centres are faced with a myriad of challenges/constraints ranging from inadequate social services and infrastructure services, competition for land amongst the various land uses resulting in encroachment on environmental sensitive areas, spatial congestion leading to informal developments, lack of economic opportunities, budgetary and institutional constraints to carry out planning activities.

The planning activity was intended to help Ntungamo Municipality address challenges faced through appropriate zoning, identifying inadequacies in social services and infrastructure provision, promoting economic opportunities and recommending a feasible implementation framework for a better Ntungamo town.

Methodology

The methodology involved carrying out physical and socio-economic surveys. The physical surveys secured the planning area boundary and ground-truthing to map out land uses using remote sensing techniques combined with topographic maps of the town. Spatial multi-criteria analysis and modelling was applied for a suitability analysis

of the constraints to development. The tool was used to generate alternative development plans and mitigation measures for environmental sensitive areas. Sampled household surveys were used to capture socio-economic data and views on spatial development and requirements of the population over the planning period.

A media and communication strategy were developed to popularize, create awareness and sensitize stakeholders about the planning process to enable them actively participate in the planning process, support the consultative component of the exercise and aid in plan implementation.

Legal and Institutional Framework

To understand the Legal and institutional framework, the statutory acts relevant to physical planning were reviewed. They include among others the 1995 Constitution of the Republic of Uganda; the Local Governments' Act CAP 243; The Physical Planning Act, 2010; the Land Act CAP 227 and the National Environment Statute.

Key Findings

The analysis of key findings focused on major sectors such as demography, economy and employment, social services, housing, urban infrastructure and environmental issues, land use pattern and land tenure system.

- **Demographic profile** of the planning area indicated an increase among the youth. This implies that government policies should be geared towards increasing employment opportunities and supply of housing.
- **Employment and the economic base:** the economy was assessed to establish its capacity to sustain the projected population and how planning can intervene to ensure growth. Majority of the population was employed in the informal sector. The economic base is subsistence agriculture with minimal industrialisation in agro processing especially coffee processing and grain milling, welding and carpentry and the transport sector.
- **The social services** such as schools (kindergarten/Nursery, Primary and secondary) and health facilities (drug shops, clinics and health centres). The municipality must provide other essential services such as recreational facilities, and open spaces among others.
- **Housing** was categorised into permanent, semi-permanent and temporary. Key issues affecting the housing sector included lack of access to clean and safe water and sanitation facilities.
- **Urban infrastructure** comprised of roads and water supply systems. The existing roads were in a fair physical state but a lot of maintenance works are required to keep the peri-urban connected to the town centre during the rainy season.
The municipality has piped water from the water reservoir, tanks, and Nyakasa hill, which covers part of the planning area while other parts of the planning area heavily depend on the use of boreholes.
- **Environmental issues** comprised of forests (planted and natural), wetlands and swamps, which are under threat from small-scale industries, housing, agriculture/farming, and institutional development. Major challenges affecting environment management in Ntungamo Municipality include poor solid waste and inadequate human excreta management systems. Pit latrines are the most widely used sanitation methods for the disposal of human waste while biodegradable and non-degradable solid wastes are dumped in open spaces and farmlands – an issue that raises environmental concerns. Wetlands were reclaimed for other uses and the urban forest is being relocated to pave way for urban development. The methodology, legal

and institutional framework, and discussion of the findings including comparative advantages of Ntungamo Municipality are contained in this Report.

Development Potentials and Constraints

The identified development potentials reflect the comparative advantage of Ntungamo Municipality to other neighbouring towns in a regional context. They included strategic location along Mbarara – Kabale road which connects to Rwanda and the Democratic Republic of Congo (DRC) through Kabale town and Mirama Hill road to Rwanda. Other advantages include proximity to Rwanda, the good physical infrastructure such as health facilities, access roads, water supply network, forests and virgin land for future expansion of Ntungamo town, political will, rich agricultural hinterland and community support to development of Ntungamo town.

The identified key constraints to the sustainable development of Ntungamo town included the existing land tenure system, HIV/AIDS among the youth and women, low tax base and poverty among the masses. Concerns of land tenure will eventually be mitigated through sensitisation of the various stakeholders and landlords and formation of development partnerships through the **Public Private Partnerships Project (PPP) models** in physical and social infrastructure service provision.

Land Use Proposals

Land use proposals for Ntungamo Municipality for the next 10 years were guided by sectoral objectives, design principles and criteria for suitability analysis.

Residential Developments categorised as high, medium and low-density residential areas, were proposed in several areas across the town guided by the existing developments and suitability analysis.

Commercial areas were structured in a 2 tier hierarchical order: the Central Business District (CBD) comprising wholesale shops and departmental stores and the Local Commercial Centres (LCC) comprising of retail shops and neighbourhood commercial centres on the periphery of the town to encourage sustainability of such neighbourhoods.

Industrial developments whereby existing small scale industrial developments were encouraged to develop into big industrial complexes. For instance the existing coffee processing, grain milling centres, welding and furniture workshops were encouraged to relocate to the Proposed Industrial Area where space has been reserved for Agro-processing industries and light industrial developments. This was to allow for equal distribution of employment centres and facilitate sustainable development within Ntungamo town.

Urban Agriculture was proposed in the residential areas in line with the Government Policy of urban agriculture. The activity will support the agro-processing industries as well as promote food security and poverty alleviation among the town residents. Other land use proposals are transport related infrastructure facilities such as Taxi Park, Bus Park, loading and offloading bays; cultural and tourism centres and environmental areas were proposed as new investment opportunities to diversify the economic base of the town.

PART ONE

CHAPTER ONE: INTRODUCTION AND BACKGROUND

1.1. INTRODUCTION

This document presents the Report on Situation Analysis and Planning Proposals for the “Review of Ntungamo Municipality Structure Plan (2008 – 2018); Preparation of Ntungamo Municipality Physical Development Plan and the Local Physical Development Plan for the Municipality”. The Government of the Republic of Uganda fully appreciates the challenges of urban planning faced by eight (8) Cities including Kampala Capital City by 01st July 2020, Thirty-three (33) Municipalities by 01st July 2020, including Ntungamo Municipality, One Hundred Seventy Four (174) Town Councils and Two Hundred Four (204) Town Boards.

The Government of Uganda is committed to ensuring orderly, sustainable, and progressive urban development as part of the national agenda. Much of the urbanisation in Uganda today is informal and haphazard. Previous planning efforts focused on established and gazetted urban centres such as Kampala City, Municipalities, and a few Town Councils, ignoring other urbanising areas and their hinterlands. As a result, most of the new urban growth centres have not had any planning intervention.

Therefore, all urban centres require urgent planning attention through the revision of the existing and poorly implemented physical development plans, preparation of new physical development plans and local area physical development plans and/or extending planning area boundaries to cover the fast-growing peripheries. For example, Ntungamo Municipality’s current physical development plan was prepared in 2008 under the LGDP II Programme supported by World Bank that covered 76 urban councils. The need to reposition Ntungamo Municipality to harness her natural resources and potentials from tourism, transportation, administrative and location along Kampala – Kigali Road through Katuna Border Post and Mirama Hill Border Post along Ntungamo – Mirama Hill road and the town’s location in the Albertine Region necessitated the review of the Ntungamo Municipal Council Structure Plan (2008 – 2018).

In response to the above, Ntungamo Municipality mobilised and secured funds for reviewing and updating the municipality physical development plan and preparation of the local physical development plan for the central area or any selected area in the municipality, for orderly and sustainable urban development of Ntungamo town. This was in recognition of the important roles that urban centres play in national development as engines of growth and centres of investment, employment, education, knowledge, technology transfer, and ready markets for industrial and agricultural products.

This physical planning exercise ensured that: -

- a) Planning needs of Ntungamo Municipality were addressed;
- b) The existing structure plan for Ntungamo Municipality was reviewed, updated and will be presented to the NPPB for approval as required by the Physical Planning Act, 2010;

- c) Local Area Physical Development Plan for the selected areas within the municipality prepared and presented to Ntungamo Municipality Physical Planning Committee and Council for approval as required by the Physical Planning Act, 2010; and
- d) The public is further sensitised about the value of physical planning and their contributions for a better-planned Ntungamo town.

1.2. STRUCTURE AND CONTENT OF THE REPORT

This report is organised in **four (4) Chapters**. **Chapter One** highlights the introduction and background to the assignment, scope of work and objectives of the assignment, location, size and planning area boundary, and urbanization trends in Uganda. Existing urban structure, the level of urban development and trend of urbanization in Ntungamo municipality, and previous planning interventions. The national and regional planning contexts together with the municipality's comparative advantages within the region, the Conceptual Framework, and the historical development of Ntungamo Municipality are discussed in this chapter.

Chapter Two provides a description of the methodology used in preparing the Physical Development Plan including reconnaissance surveys, stakeholder mobilization and consultations, primary and secondary data collection, review, analysis, and preparation of thematic maps for Ntungamo town. The Information and Education Communication Strategy to popularize the prepared PDP for effective plan implementation together with the preparation, presentation of Alternative PDPs and selection of preferred/adopted Alternative Plan by stakeholders are further discussed in this chapter.

Chapter Three provides an analysis of the existing legal framework that guides all urban councils in Uganda while undertaking physical planning activities. Institutional setup/ framework that provides technical guidance during the preparation and implementation of Physical Development Plans is also discussed in this chapter.

Chapter Four gives the situation analysis of Ntungamo town including the physical environment, the demographic characteristics of the town i.e., current and projected population, ethnicity, and age composition, duration of stay for the people of the town and factors that influenced population distribution. Geographical features together with their benefits and challenges to town development, existing land use pattern, and detailed assessment of the existing social and physical infrastructure with an evaluation of their capacity to meet the town's future requirements are all discussed in this chapter.

Key strategic challenges that impact on the planning and development of the town, which must be addressed were identified and they formed a foundation on which alternative strategies were built. These included increasing population, service delivery, poor sanitation, lack of economic opportunities, the land tenure systems, and infrastructure provision.

Further analysis of key economic indicators, development potentials and constraints as well as challenges and opportunities of developing and planning Ntungamo town were conducted and reported in this chapter.

Chapter Five details the Physical Development Plan and Strategic Interventions. SWOT Analysis, Vision, and Mission, Planning Goal and Objectives, and Planning Principles.

Chapter Six covers Planning Needs of Ntungamo Municipality, the Ntungamo Municipality Physical Development Plan (2019 – 2029) Proposals, review and analysis of Ntungamo Municipality Structure Plan (2008 – 2018) highlighting the achievements, challenges faced during the implementation and lessons learnt.

Chapter Seven covers the Ntungamo Municipality Local Physical Development Plan (2019 – 2024), Objectives, areas covered by the detailed plan, Plan Design Principles, and Proposals.

Chapter Eight details the Development Specifications to guide sustainable plan implementation while Chapter Nine covers the Plan implementation guidelines such as the Institutional and Legal Framework, implementation time frame and indicative plan implementation costs, and implementation strategies. These include monitoring, evaluation, funding, Plan Approval Procedures and Development Control for sustainable urban development and economic growth in the municipality.

Chapter Ten covers conclusions, policy recommendations and Plan Popularisation Strategy.

1.3. BACKGROUND TO THE PROJECT

Urbanization is a strong and potentially positive force in development throughout the world today. However, the accelerating rate of urbanization in Sub-Saharan Africa including Uganda has often overtaken the capacity of national and local authorities in dealing with urban development challenges. In particular, urbanization-taking place in Uganda today is informal, organic, and haphazard.

One of the major challenges facing developing countries is rapid urban growth and deterioration of urban environment. Urban centers are experiencing rapid growth and development that is unplanned, uncoordinated, and uncontrolled. With a population growth rate of 3.03 percent, Ntungamo Municipality is growing in a haphazard manner with rapid and illegal land subdivisions, poor housing conditions, and mushrooming of slum areas especially in the central zones. Lack of serviced plots and/or land, recreational facilities, and parking areas converted into commercial and industrial developments, unemployment, high population growth rates and deterioration of health conditions, poor transport, and infrastructure services, escalation of crime and social distress, and ecological conflicts. Thus, the urgent need to review Ntungamo Municipality structure plan for better standards and services, and good urban form. The reviewed plan shall focus on integrating physical, economic, social, cultural, and environmental as well as institutional aspects of urban development and tapping their potentials.

Through competitive bidding, M/s Realtek Consult was selected to undertake the assignment of revising the Municipality Structure Plan (2008 – 2018) and preparing the Municipality Physical Development Plan (2019 – 2029) through consultative process. The Proposed PDP will provide a framework for organized spatial development and guide future development of the town.

M/s Realtek Consult in close liaison with Ntungamo Municipal Council and the Ministry of Lands, Housing and Urban Development (MoLHUD), prepared Ntungamo Municipality Physical Development Plan (2019 – 2029). The PDP is a statutory document that sets out the proposed strategic framework for land use and developments in Ntungamo Municipality and looks forward to 2029.

Accordingly, Ntungamo Municipality Structure Plan (2008 – 2018) is under review with technical assistance from the Ministry of Lands, Housing and Urban Development. Ntungamo Municipal Council funded the assignment in close liaison with Ntungamo District Local Government.

1.4. SCOPE OF WORK

Under this Assignment, Ntungamo Municipality Structure Plan (2008 – 2018) shall be reviewed, updated and prepare the Local Physical Development Plan for the central area or any other identified locations in the municipality, through a consultative process. After the preparation process, the plans will be tabled for approval in accordance with the Physical Planning Act, 2010.

The scope of the assignment includes the following:

- i).* Carry out a physical and natural resources analysis of Ntungamo town and its outlying region to determine the existing resource potentials to maximize their use;
- ii).* Undertake land use and socio-economic studies with a view to proposing strategies for land use management, address unauthorized subdivisions, mixed land uses, minimum standards applicable in urban areas; and minimum applicable agricultural economic activities;
- iii).* Identify and document all informal settlements and land belonging to the council including existing markets with a view to re-planning and the improvement of the existing neighbourhoods in all the Division;
- iv).* Undertake the mapping and digitization of topographic, cadastral features and natural resources of the town;
- v).* Undertake an assessment of transport, infrastructure and utility needs, housing and community services and propose new strategies. This will include mapping of the transport, infrastructure and utility network of the town;
- vi).* Prepare analysis reports and present proposals for future spatial, demographic, social and economic and industrial growth;
- vii).* Prepare a well phased out Implementation Action Plan in the identified areas. It should have implementation schedule, planning and development policy guidelines and attendant resource and institutional requirements;
- viii).* Prepare attendant transport infrastructure services and community development facility plans;
- ix).* Detailed study of the CBD structure with view to upgrading and provision of parking areas and pedestrian walkways;
- x).* Identify suitable land for both public purpose and utilities, recreational and address security issues in the town;
- xi).* Develop a Strategic Investment Plan to be used as a tool and basis for all major planning and development activities i.e. budget preparation and service delivery implementation to ensure that the Municipality's resources are allocated in accordance with the Municipality's vision;
- xii).* Develop and apply a simple, user-friendly strategy for effective popularization of the planning process and the subsequent plan and also disseminate related information; and
- xiii).* Clearly articulate the potentials for Local Economic Development to be harnessed, their comparative advantages and evolve priority interventions & strategies for

development in the short and medium and long terms for which consensus must be generated with the respective local governments.

1.5. OBJECTIVE OF THE ASSIGNMENT

The overall aim of Ntungamo Municipality PDP is to secure appropriate development in the most appropriate locations, while taking into account environmental, social and economic well-being of the residents. In other words, a strategy, which successfully addresses sustainable development, issues, including the integration of land use and transport.

1.5.1. General Objectives

The general objective of the consultancy assignment is “to review Ntungamo Municipal Council Structure Plan (2008 – 2018), prepare through a participatory process the Ntungamo Municipality Physical Development Plan and Local Physical Development Plan to guide orderly physical and sustainable development of the municipality.”

1.5.2. Specific Objectives

The specific objectives of the assignment are to:

- a) To prepare the Physical Development Plan that includes spatial structure, land use and other associated layers for the Municipality, considering alternative planning scenarios and terms (short term of 3 years, medium term of 5 years and Long term of 10-15 years) in review of the existing plan;
- b) Prepare detailed urban design plan for the Municipality CBD and other rapidly developing areas within the town agreed upon by stakeholders;
- c) To develop an Infrastructure Investment Plan (IIP) reflecting priority intervention areas for the short term (3 years), and a phased action plan with indicative costing for implementation of the identified infrastructure projects within the municipality;
- d) Develop a communication strategy and stakeholder engagement plan (Information, Education & Communication Strategy - IEC Strategy) to promote and ensure full stakeholder participation and consultation during the preparation and subsequent implementation of the plan;
- e) Review and develop planning standards and development control guidelines for the implementation of the plan and propose appropriate enforcement measures; and
- f) Develop a clear costed plan implementation strategy covering short term, medium term, and long-term interventions.

1.6. THE PURPOSE OF NTUNGAMO MUNICIPALITY PDP (2019 – 2029)

Ntungamo Municipality PDP sets out strategic planning framework for development and use of land within Ntungamo. It includes policies and proposals which provide the basis for decisions made by individual Physical Planning Authorities, Ntungamo Municipal Council, Ntungamo District Council and other agencies during the preparation of Physical Development Plans and provision of physical, social and economic infrastructure facilities and services. While the planning system can only consider those matters relating to the development and use of land, the Physical Development Plan has an important role to play in:

- a) establishing a strategic planning framework for the future of Ntungamo commencing 2019 to 2029,
- b) ensuring that this strategic planning framework supports and promotes the principles of sustainability,
- c) giving broad guidance to local planning authorities in terms of scale and distribution of new developments and provision of supporting physical and social infrastructure facilities and services,
- d) guiding investment plans and programmes of those agencies and organizations whose activities support and service land uses and,

Providing a development context for Community Strategies and Local Transport Plans among others.

1.7. PLANNING AREA COVERAGE

The proposed Ntungamo Municipality Physical Development Plan (2019 – 2029) covers twenty-six (26) LC I Villages, six Wards, and three Divisions namely Eastern, Western, and Central. These make up Ntungamo Municipality, which is the planning area are as indicated in table 1.

Table 1: Wards and LC I Villages within the Planning Area

S/N	Division	Ward Name	LC I Zones
1	Eastern	Park	Cell 1, 2, 3
		Kyamate	Mpama, Kabingo, Rwencwera, Kyamate, Rukindo, Nyakaina
2.	Western	Muko	Cell 4, 5, 6
		Kahunga	Nyabubare, Kyanju, Nyakibigi, Nyamisa, Nyakasa, Nyakihanga
3.	Central	Central	Cell 6, 7, 8
		Kikoni	Kabagyenda, Orubaare, Kikoni, Kabahambi, Kyanju I

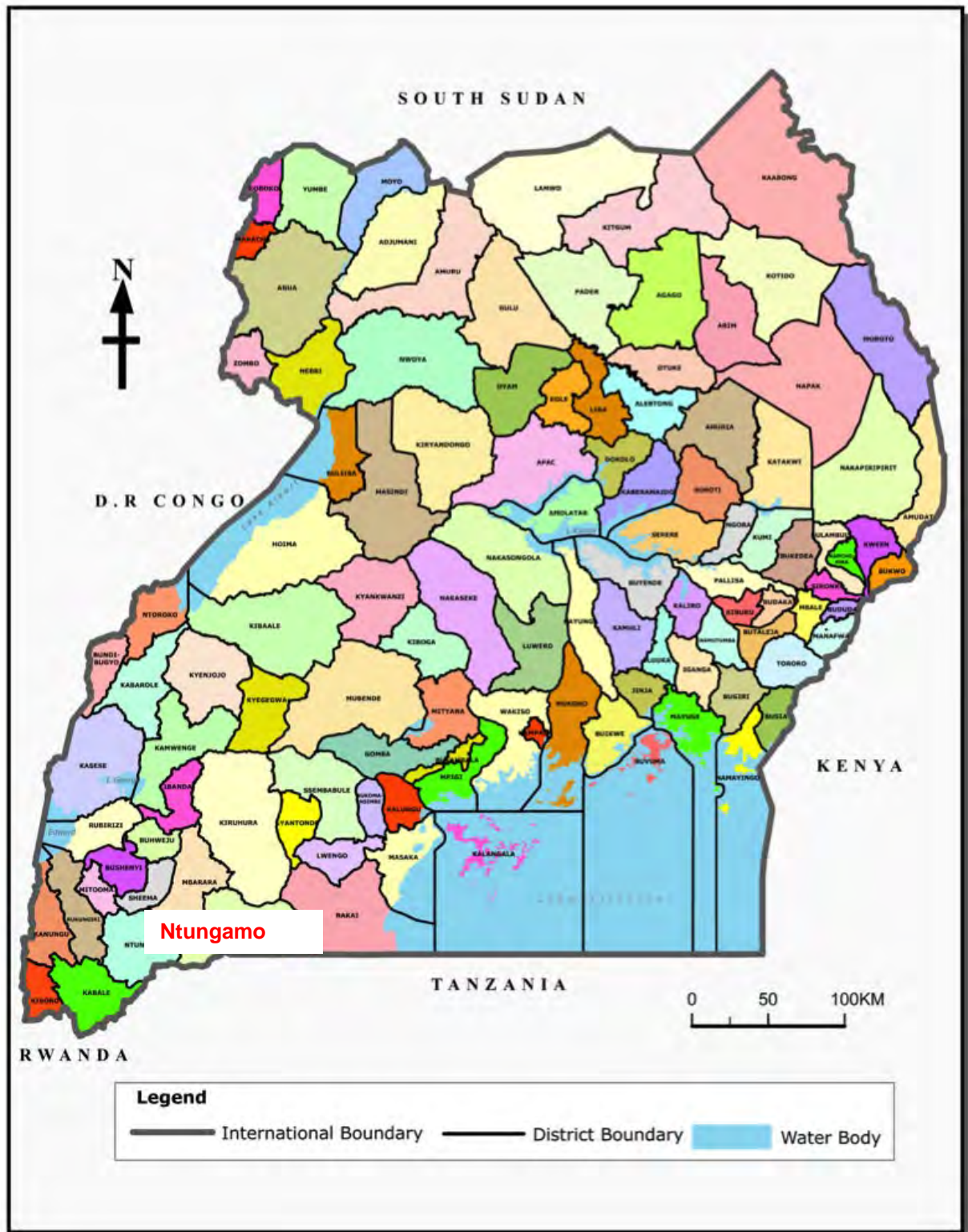
Source: Ntungamo Municipality 5 Year Development Plan (2015/16 – 2019/20)

1.8. LOCATION OF THE PLANNING AREA

Ntungamo Municipality is located in Ntungamo district, Ruhaama County, in South Western Uganda Region. Ntungamo town is located 66 KM by road on Mbarara - Kabale highway, Southwest of Mbarara town, the largest metropolitan area in the Ankole sub-region. The town is also located 360 KM by road, southwest of Kampala Capital City, the Capital, and largest City of Uganda. The coordinates of the town are 0°52' 55.0" S, 30°15' 55.0" E (Latitude: -0.881944; Longitude: 30.265278).

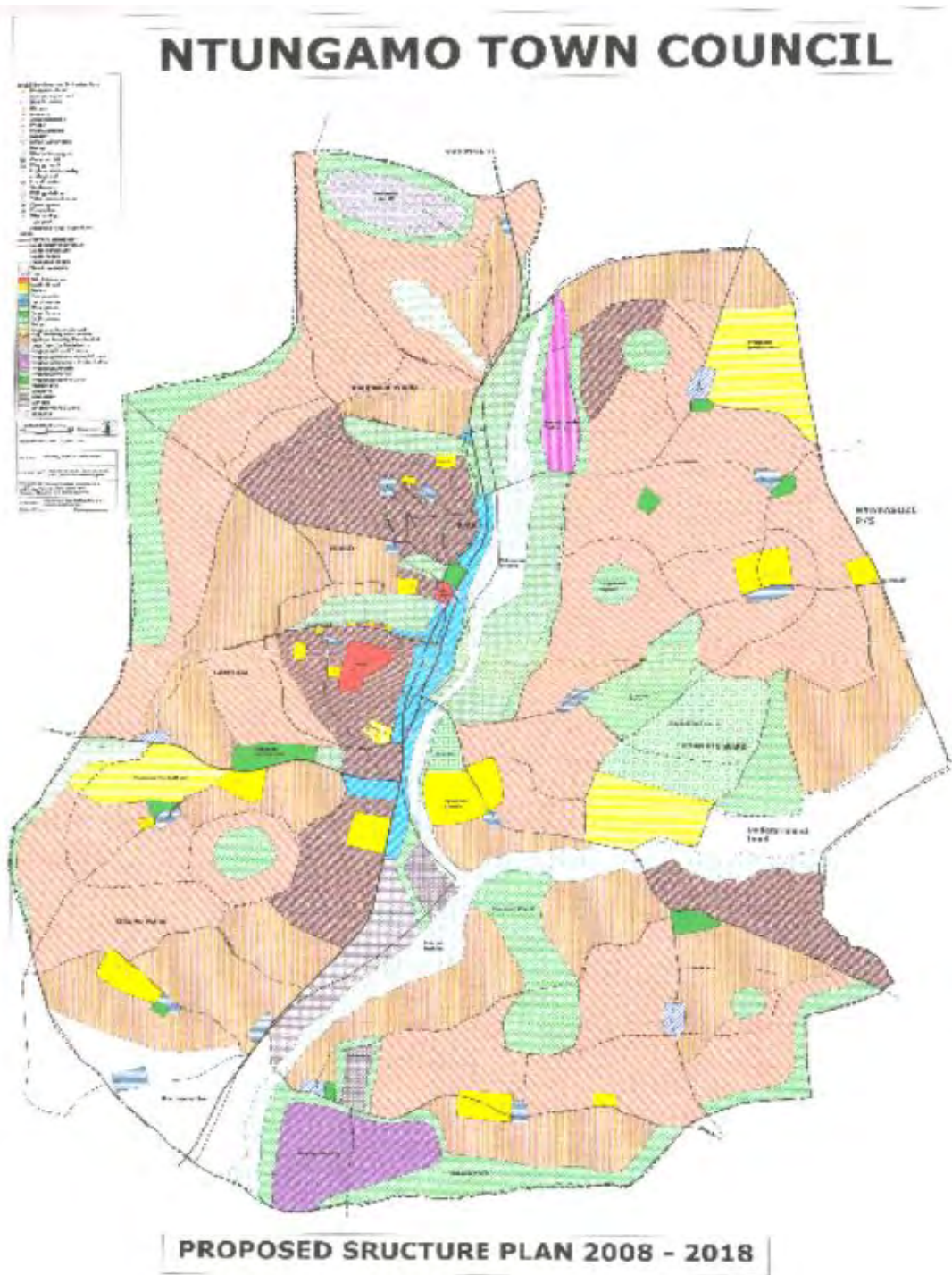
Ntungamo Municipality borders Ntungamo Sub County, which is part of Ruhaama County. It covers a total land area of 56 square kilometers (See Map 1, 2 and 3).

Map 1: Location of Ntungamo District in Uganda



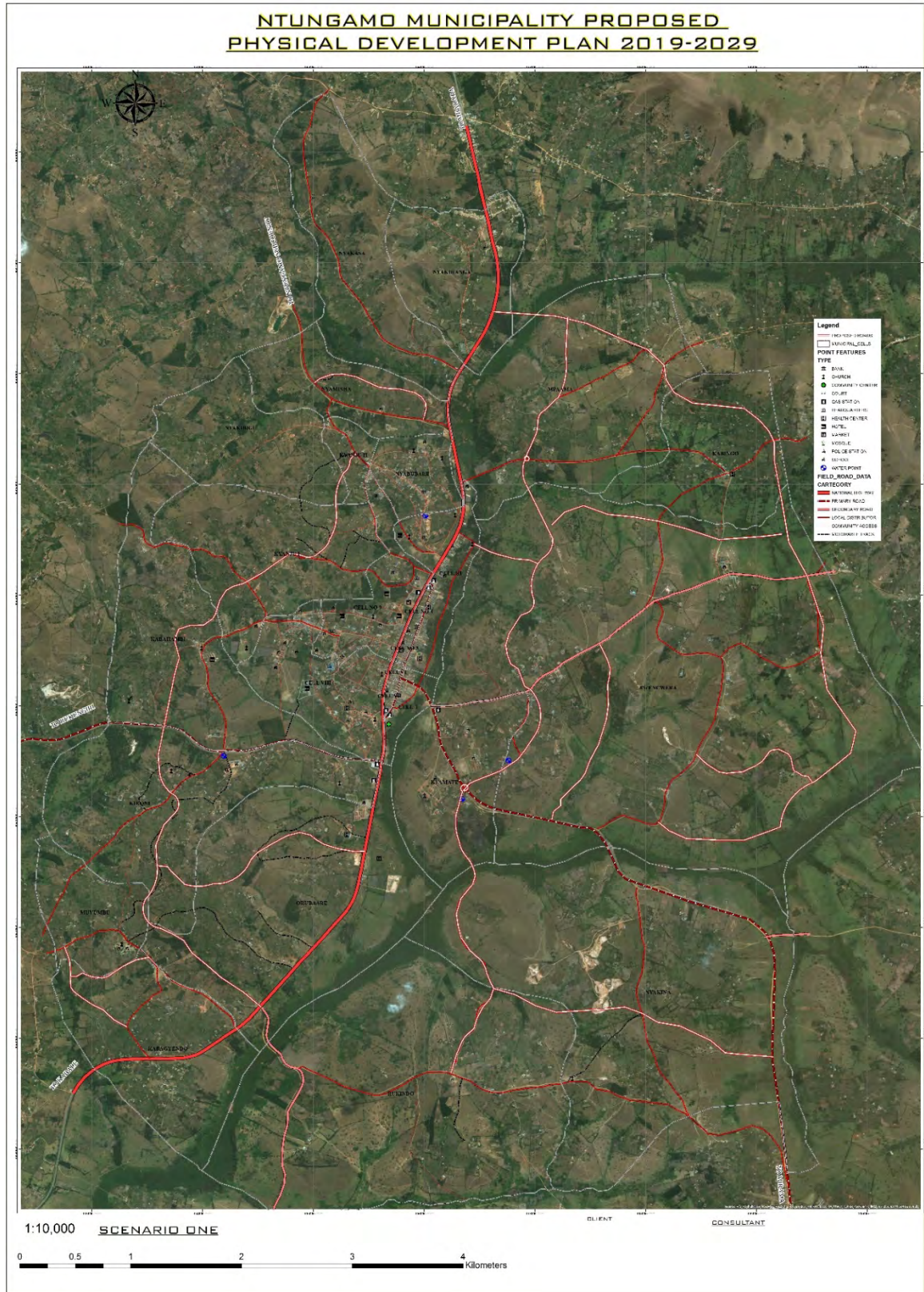
Source: M/s Realtek Consult Ltd, June 2018.

Map 2: Map of Ntungamo Municipality



Source: Ntungamo MC Planning Office, June 2018.

Map 3: Satellite Imagery for Ntungamo Planning Area



Source: M/s Realtek Consult Ltd, June 2018.

1.9. HISTORICAL DEVELOPMENT OF NTUNGAMO MUNICIPALITY

Ntungamo town sprung up as a result of Arabs who settled in the town and used it as a strategic business stage with Ankole region, Kigezi region, DRC, Rwanda, and Burundi. Although the people of Ntungamo did not copy the business acumen of the Arabs at the beginning, they later became dynamic and took up business, which led to the town growth. The municipality is centrally located to provide linkages to the previously mentioned countries and other towns like Kabale, Rukungiri, Kisoro, and Kanungu.

The town attained the status of a town board in 1983 and later on 1st July 1994 accorded the status of town council as a result of the creation of Ntungamo District. From 1st July 2010, the Ministry of Local Government, because of Ntungamo's central position and growth trends - elevated the town to the status of a municipal council a status it still holds to date.

1.10. THE PHYSICAL ENVIRONMENT

1.10.1 Topography

The topographic characteristics of Ntungamo Municipality exhibits a regular gradient, sloping from east to west, the same direction in which the rivers flow. The western part of the municipality merges into lower flat areas and swamps.

1.10.2 Vegetation

The main vegetation is savannah grassland mixed with some shrubs and herbs. A forest reserve of eucalyptus trees covering about 13 hectares occupies the central part of the town. Wetlands also exist in the lower part of the municipality and mainly have papyrus reeds, typhus, and hedges. Privately owned eucalyptus woodlots are also scattered throughout the municipality. Trees provide building materials while wetlands provides papyrus reeds to the local people for making handicrafts.

1.10.3. Geology and Soils

Most soils in the rural wards are reddish brown clay loams, rendering them fertile to facilitate agricultural activities. However, some parts have sandy soils, which people use to construct houses. The extent of soil exhaustion and erosion is at minimum since people in peri-urban areas have started practicing modern methods of agriculture.

1.10.4. Climate

The municipality receives a bi-model rainfall with heavy rains occurring from September to December and light ones from March to May annually. This is suitable for agriculture and production. However, there has been a slight change in climate due to environmental degradation.

1.10.5. Wildlife

Limited wild animals are found in the municipality such as velvet monkeys and Sitatunga. However, monkeys are destructive animals especially in Eastern Division where they destroy food crops thus a cause for food insecurity. There is potential for protecting some wild life like the Sitatunga whose habitat – wetlands are still abundant.

The municipality is also rich in bird diversity. They are mainly wetland birds such as Cranes, Egrets, Ibis, and Wild Geese, commonly found near wetlands and open water surfaces. Others are migratory birds that make Ntungamo town a stopover point on their way to other areas. The

municipality also has a variety of plants. These are predominantly savannah grasses, trees of mixed diversity and wetland plants mainly cyprus, papyrus, and sedges.

1.10.6. Mineral Resources

The municipality is weakly endowed with minerals. The only related activities carried out are stone quarrying and sand mining in Kahunga ward and Kyamate ward, which are a source of raw materials for building, this has made it easy for Ntungamo Municipal people to develop.

1.10.7. Wetlands

The municipality is endowed with seasonal and permanent wetlands. There is the Kakingora wetland system with permanently flowing water. Numerous streams pour water into this system, which eventually drains into River Kagera, enroute to Lake Victoria. It is because of this linkage that Ntungamo Municipality forms part of L. Victoria catchment area, the other wetlands systems are small and seasonal. These are significant for provision of water for livestock, domestic consumption, and brick making which requires a lot of water. All these positively impact on the wellbeing of the people of Ntungamo Municipality. The wetlands are therefore an important resource to be protected.

1.10.8. Land tenure

Land tenure means all the rights provided for by a legal system, through which an individual or group gains access to land; while land tenure system is an arrangement, which determines and regulates ownership and utilisation of land. According to Article 237 of the 1995 Constitution, land in Uganda belongs to the citizens of Uganda, and is vested in them in accordance with the following land tenure systems: Customary, Mailo, Leasehold, and Freehold.

In Ntungamo Municipality, eighty-five percent of land is under customary tenure especially in rural wards, freehold tenure system is at ten percent while leasehold covers five percent of the land in the municipality. With the establishment of the lands registry at the District, registered interest in land is on the increase with lease-registered and customary landowners converting to freehold.

1.11. URBANIZATION TRENDS IN UGANDA 1969 TO 2014

Urbanisation is defined as the increase in the proportion of the population living in urban areas. Urbanisation rate in Uganda is relatively low compared to other East African counties such as Kenya and Tanzania. The roots of urbanization in Uganda can be traced back since the 1890's when the European footprint in the country started to be felt. With the building of the Uganda railway, economic and administrative centres were established. Persistent rural poverty that causes people to migrate to urban areas with the hope of improving their livelihood partly explains the urban population growth rate of 5% for some districts in Uganda. For example, the decline in the urbanization rate of the Eastern Region is partly due to out – migration from these districts to other districts in search for employment.

The 1960's, 1980's and 1990's, censuses defined urban areas to include gazetted urban centres (city, municipalities and town councils) and un-gazetted trading centres with a population exceeding 1,000 persons. However, the 2002 and 2014 Censuses defined urban areas to include only the gazetted urban centres (city, municipalities, town councils, and town boards). In August 2016, there were 259 urban centres in Uganda including 1 capital city, 33 municipalities, 163 town councils, and 62 town boards (See table 2).

Table 2 gives the number of urban centres by type and urban population based on the Censuses held in 1969, 1980, 1991, 2002, and 2014. However, urban areas are as by August 2016. The urban population increased overtime from 634,952 in 1969 to 2,921,981 in 2002, a fivefold increase in 33 years. The period 1991 – 2002 was characterised by rapid increase in urban population, from three (3) million to over seven (7) million. This increase is partly because of natural population increase, an increase in the number of urban centres from 75 in 2002 to 259 in 2016 and expansion in the geographical area of some urban centres.

Table 2: Number of Urban Centres by type, Census Year and Urban Population (1969 – 2014)

Index	1969	1980	1991	2002	2014*
Total Urban areas	N/A	41	67	75	259
City	N/A	1	1	1	1
Municipality	N/A	2	13	13	33
Town councils	N/A	34	33	61	174
Town boards	N/A	4	20	20	62
Total urban Population	634,952	938,287	1,669,653	2,921,981	7,425,864

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

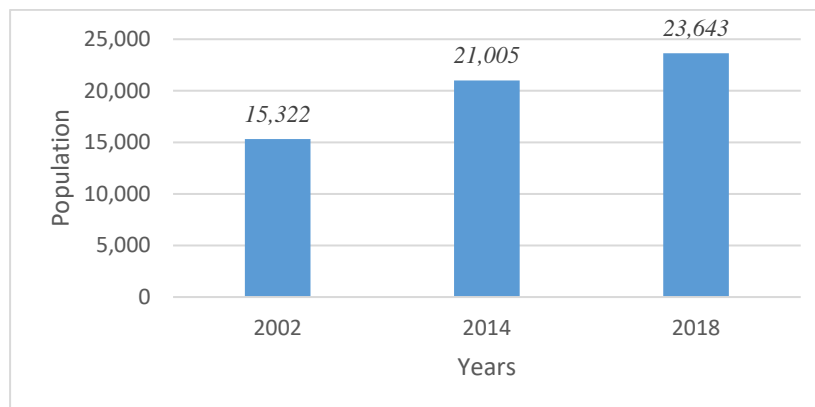
N.B.: The population for 2002 excludes the population enumerated in town boards, while the urban centres indicated in 2014 are as of March 2016.

What is clear is that major urban areas in the country fall within the urban corridor, a result of the then established colonial infrastructure development especially the construction of the Kenya – Uganda Railway.

Level of urbanization in Ntungamo Municipality

Ntungamo Municipality’s population increased from 15,322 persons in 2002 to 21,005 persons in 2014. This gives an average annual growth of 37 percent. This implies that the municipality’s population increased by 6,131 persons between 2002 and 2014. At this rate of growth, the population of Ntungamo municipality was projected to increase to 23,643 persons by 2018 (See Fig. 1). Ntungamo town’s growth rates from 1981 – 2002 was 1.88 percent and 2.11 percent from 2002 – 2014.

Fig. 1: Ntungamo town’s population growth



Source: UBOS 2016, the National Population, and Housing Census 2014 – Main Report, Kampala, Uganda

1.12. EXISTING ADMINISTRATION FRAMEWORK

The Council is the highest political authority in the Municipality with 19 members under the leadership of the Mayor. The Municipal Executive Committee is made up of five members and initiates and formulates policies for approval by Council. It also oversees the implementation of policies made by Council and Central Government.

The Town Clerk heads the technical team of the Municipal Council divided into seven directorates. The Municipal council including its Divisions have an approved structure of 102 posts. Seventy five percent of these posts are filled leaving a twenty-five percent staffing gap.

1.13. EXISTING ADMINISTRATIVE UNITS

Ntungamo Municipality is composed of three Divisions namely Eastern, Western and Central with six (six No.) Wards namely Park, Kyamate, Muko, Kahunga, Central, and Kikoni. The municipality has twenty – six (26 No.) LC I Villages as detailed in table 3.

Table 3: Wards and LC I Villages within the Planning Area

S/N	Division	Ward Name	LC I Zones
1	Eastern	Park	Cell 1, 2, 3
		Kyamate	Mpama, Kabingo, Rwencwera, Kyamate, Rukindo, Nyakaina
2.	Western	Muko	Cell 4, 5, 6
		Kahunga	Nyabubare, Kyanju, Nyakibigi, Nyamisa, Nyakasa, Nyakihanga
3.	Central	Central	Cell 6, 7, 8
		Kikoni	Kabagyenda, Orubaare, Kikoni, Kabahambi, Kyanju I

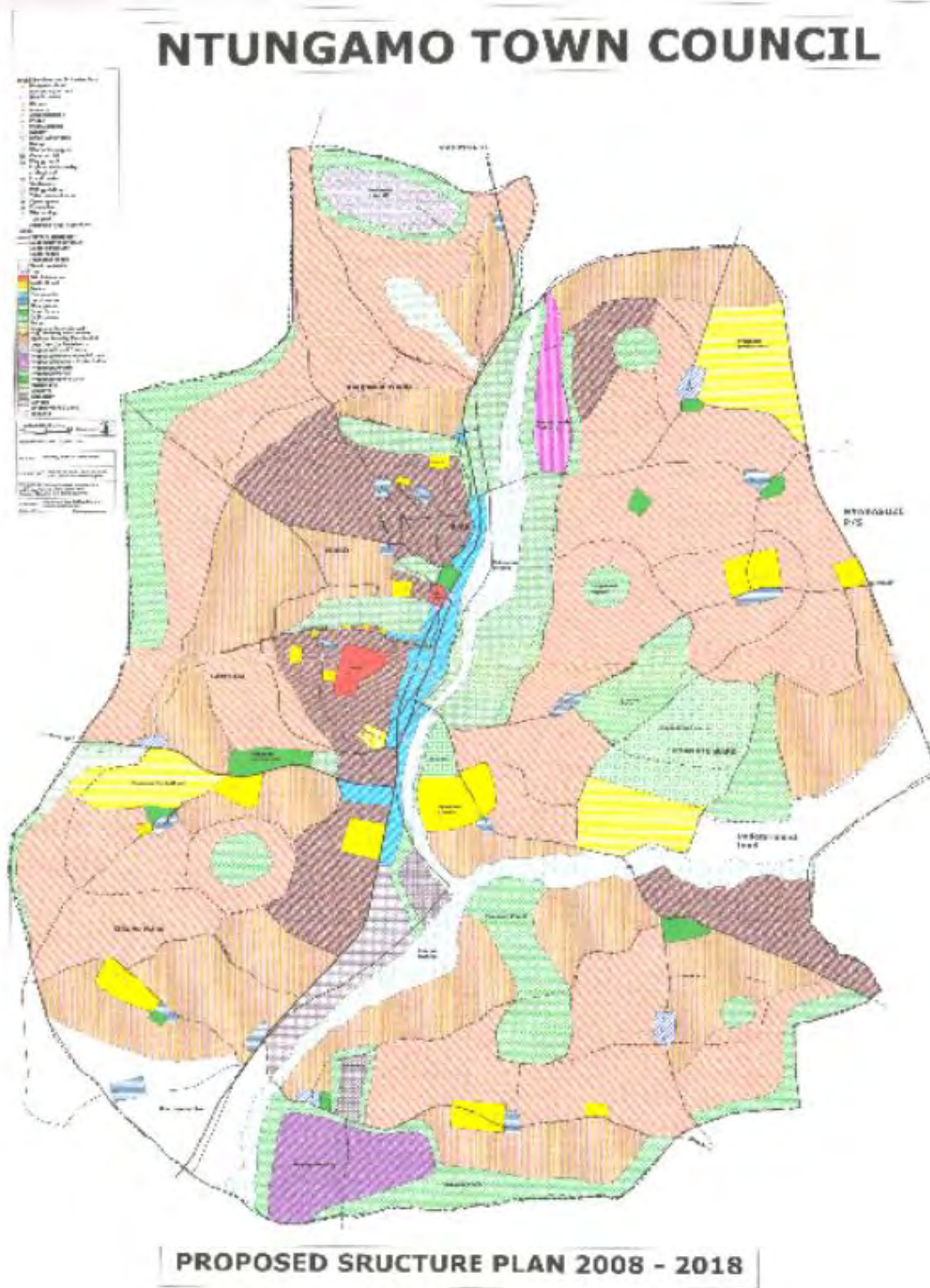
Source: Ntungamo Municipality 5 Year Development Plan (2015/16 – 2019/20)

1.14. PREVIOUS PLANNING INTERVENTIONS

This planning activity is not the first of its kind in Ntungamo Municipality. Several attempts were made in providing guidance and development control in Ntungamo Municipality. The most recent attempt was in 2008 when 76 urban councils countrywide had Physical Development Plans prepared under the Second LGDP in 2008 with funding from the World Bank. The Ministry of Local Government (MoLG) in conjunction with the Ministry of Lands, Housing and Urban Development (MoLHUD), jointly supervised the exercise.

The outcome of the above exercise was the then Ntungamo Town Council Structure Plan (2008 2018) (See Map 4) that has guided and regulated development within the town since 2008. However, with the high rate of urbanization, new developments have surpassed the provisions of this plan. In light of these changes and future developments, and for a holistic approach and good governance, a new PDP and LPDP for Ntungamo Municipality will be prepared.

Map 4: Ntungamo Town Structure Plan (2008 – 2018)



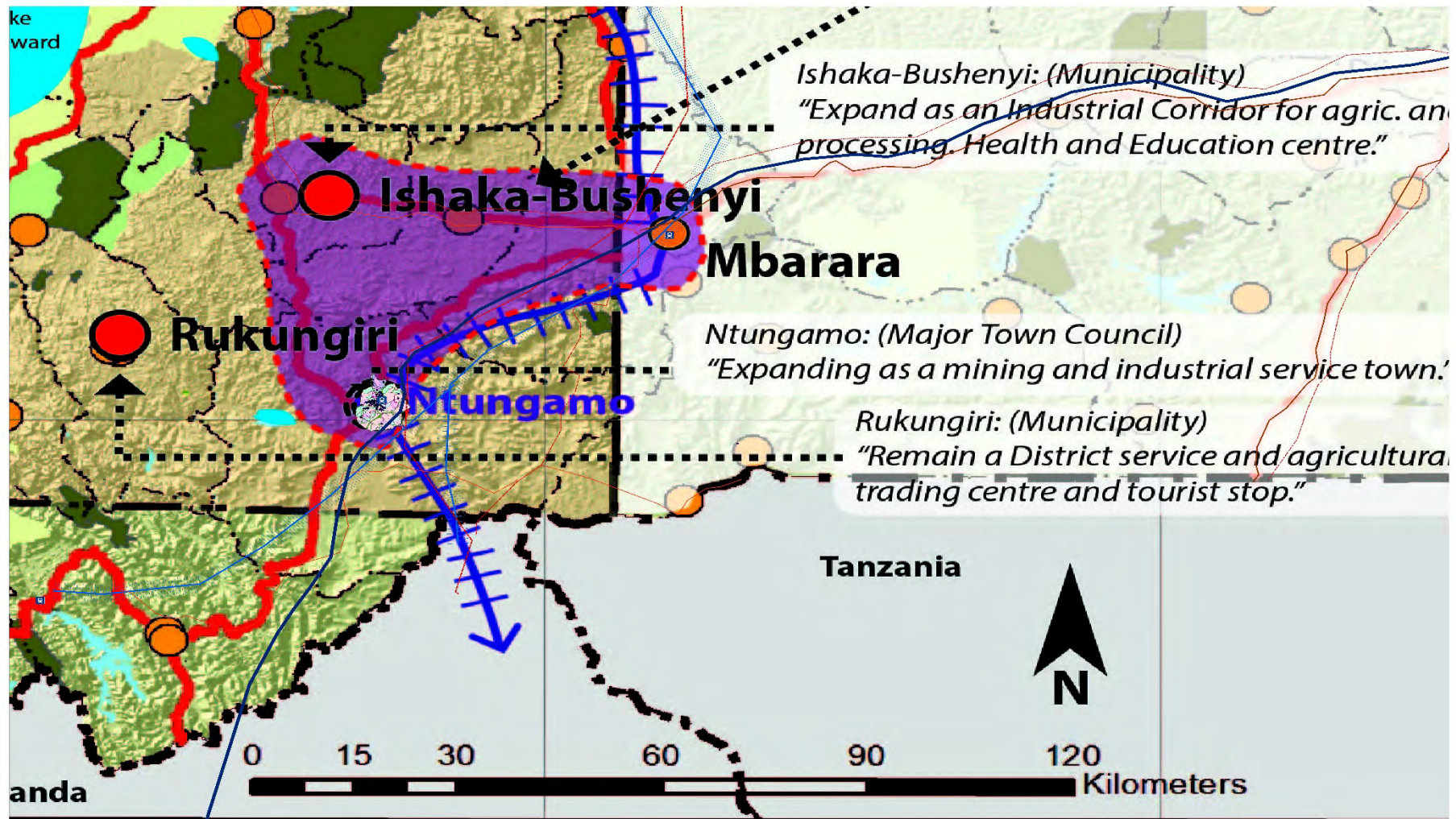
Source: Ntungamo Municipal Council, Physical Planning Office, June 2018

1.15. REGIONAL PLANNING CONTEXT

Ntungamo Municipality is located in Ntungamo district located in the South West of Uganda. The municipality is part of the Albertine Graben Region of Western Uganda and is bordered Ntungamo Sub County in Ruhaama County. Ntungamo town is found at coordinates: 0°52'55.0" S, 30°15'55.0" E (Latitude: 0.881944; Longitude: 30.265278).

Ntungamo town is strategically located to benefit from Mbarara – Kabale highway and Mbarara – Mirama Hill Road, which provides direct connections of the municipality to Rwanda through Mirama Hill border post in Ntungamo district and Katuna Border posts in Kabale district. Cyanika and Bunagana border post in Kisoro district and Ishasha border post in Kanungu district further provides Ntungamo municipality with direct linkages to the Democratic Republic of Congo (DRC) (See Map 5).

Map 5: Regional Context of Ntungamo Municipality



Source: M/s Realkon Consult Ltd, June 2018.

CHAPTER TWO: ASSIGNMENT METHODOLOGY

2.1. INTRODUCTION

A number of methods and techniques were employed for the execution of this physical planning exercise. The preparation of Ntungamo Municipality Physical Development Plan commenced in May 2018 with topographic, cadastral and reconnaissance surveys for the entire planning area. After reconnaissance surveys, Inception Report preparation together with stakeholder consultations commenced.

The Final Inception Report was submitted on 25th April 2018 while the initial stakeholders' consultative workshops were held on 26th April 2018 in Ntungamo Municipality for Municipality Councillors, Staff, and Chairperson LC I in their respective locations (See Fig. 2).

The main purpose of these initial meetings with stakeholders were to:

- ✓ Sensitize the communities and other stakeholders about the merits of Physical Planning;
- ✓ Popularize the planning process;
- ✓ Disseminate information to the various stakeholders; and
- ✓ Create effective feedback loops through which stakeholders can participate in the planning process, and
- ✓ Pave way for ground-truthing, land use inventories, socio-economic surveys and spatial data collection.

Collection of Socio-economic data and land use inventories were undertaken in May 2018. These were followed by the preparation of the base map, which comprised of the following themes: location of the planning area, existing social services, physical infrastructure facilities, land use, population density/distribution, potentials, and constraints of the planning area. Two (2 No.) Alternative Physical Development Plans were generated: 1st Alternative was generated by end users while the 2nd alternative plan was generated by the consultant (M/s Realtek Consult Ltd).

The two Alternative Plans were presented to stakeholders during stakeholders' consultative workshops held in Ntungamo town from 11th – 12th June 2018 at Municipal Council Boardroom (See Fig. 7), Taxi Park (See Fig. 8), Central Division offices (See Fig. 9) and West Division offices (See Fig. 10). During these workshops, stakeholders were sensitised on the need for physical planning of Ntungamo municipality, the various proposals in the Draft Plan and their roles towards the successful implementation of the plan for Ntungamo Municipality. Stakeholders were also guided on selecting the preferred alternative plan, which they felt addressed their needs and aspirations for the planning period.

By show of hands, Alternative Plan 1 was selected (See Fig. 11), by majority of stakeholders, with amendments as the Preferred Plan. All proposed amendments and comments raised by stakeholders during these meetings were incorporated into the revised Draft Physical Development Plan that will be put on deposit for a mandatory period of **three (3) calendar months**. During this time, critical examination and analysis by stakeholders generated more comments and input into the revised Draft Physical Development Plan.

All stakeholders' comments that will be made during the deposit period shall be recorded in the provided books and collected for scrutiny, discussion and inclusion into the Final Ntungamo

Municipality Physical Development Plan (2019 – 2029). The Revised Draft Plan will be presented to Ntungamo Municipality Physical Planning Committee, for review, approval and recommendation to NPPB for approval and gazetting.

The Final Plans will be presented to NPPB for consideration and approval, after which, the plans will be legal and no development will be permitted within the boundaries of Ntungamo Municipality Planning Area without the approval of the respective local authority.

Table 4 provides a summary of the methodology employed by M/S Realtek Consult Limited in the preparation of Ntungamo Municipality PDP (2019 – 2029).

Table 4: Summary of adopted methodology

Activity	Methodology	Instruments	Responsible Persons	Output
Pre-fieldwork Preparations				
Purchase of topographic maps and Satellite imagery of Ntungamo Municipality	<ul style="list-style-type: none"> ✓ Contacted relevant offices such as the Department of Surveys and Mapping Entebbe, UBoS, NW&SC ✓ Identification of relevant maps and Satellite imagery 	Notebooks, Introductory Letters from the Client	M/s Realtek Consults Limited (RCL),	Topographic Maps and satellite imagery on appropriate scales
Acquisition of fieldwork equipment	<ul style="list-style-type: none"> ✓ Identification of suppliers of the required instruments, ✓ Hire and or purchase of the instruments 	<ul style="list-style-type: none"> • GPS & RTK Machines • Laptops & Digital Camera 	M/s RCL,	Equipment secured for fieldwork
Preparation of household survey questionnaires	<ul style="list-style-type: none"> ✓ Generation, printing and pretesting of the 1st Draft Questionnaire, ✓ Revision of the 1st Draft Questionnaire, ✓ Printing and photocopying of the Final Questionnaire ✓ Training of Research Assistants for socio-economic surveys (See Fig. 6) 	<ul style="list-style-type: none"> • Laptops, stationary, printers, 	M/s RCL,	Questionnaires
Reconnaissance surveys	<ul style="list-style-type: none"> ✓ Technical meetings and discussions involving project team and implementing urban authorities ✓ Familiarization tour of Ntungamo municipality, ✓ Rapid Urban Appraisals and Transect walks 	Note books, sketch books, laptops, GPS Machines, transport equipment, cameras,	<ul style="list-style-type: none"> ✓ M/s RCL, ✓ NMC officials, ✓ Ntungamo DLG Officials 	<p>Work schedule finalised,</p> <ul style="list-style-type: none"> ✓ Contacts of relevant people ✓ Planning area boundary for NMC finalised, ✓ Inception Report
Review of existing relevant literature	Collected literature for review from UBoS library, MoLHUD, and Ntungamo municipality	<ul style="list-style-type: none"> ✓ Reports for review, ✓ Laptops, ✓ Notebooks, 	<ul style="list-style-type: none"> ✓ M/s RCL, ✓ NMC officials 	<ul style="list-style-type: none"> ✓ 5 Year Development Plan ✓ NMC profile ✓ UBoS Statistics and data, ✓ Other relevant literature and data acquired
Field work				
Topographic Survey of the Planning Area	<ul style="list-style-type: none"> • Capture of existing situation using the RTK Machine, • Identified planning area boundary on ground 	<ul style="list-style-type: none"> ✓ RTK Machines, GPS Receivers, Notebooks, Sketchbooks, Laptops, Cameras, 	<ul style="list-style-type: none"> ✓ M/s RCL, ✓ NMC officials, ✓ Ntungamo DLG Officials 	<ul style="list-style-type: none"> • Topographic Map of NMC Planning Area, • Thematic maps (slope, physical features, infrastructure, social

Ntungamo Municipality Physical Development Plan (2020 – 2030)

Activity	Methodology	Instruments	Responsible Persons	Output
	<ul style="list-style-type: none"> • Captured the boundary on the topographic map by the surveying team 		<ul style="list-style-type: none"> ✓ LC I & II Chairpersons 	<ul style="list-style-type: none"> • services, potentials and constraints) of NMC, • Planning area boundary identified & mapped
Facilitating stakeholders' consultative meetings and sensitization workshops (See Fig. 4 - 8 and Appendices II – V, for attendance lists)	<ul style="list-style-type: none"> • Dissemination of Information on physical planning • Group discussions to obtain stakeholders' views • Stakeholders' participatory planning exercise • Presentation and discussions • Workshops for all key stakeholders including NGO's and Utility bodies 	<ul style="list-style-type: none"> ✓ Laptop, projector and hang-ups 	<ul style="list-style-type: none"> ✓ M/s RCL, ✓ Ntungamo DLG; ✓ NMC officials, ✓ LC I & II Chairpersons, ✓ General public 	<ul style="list-style-type: none"> • Informed stakeholders ready and willing to participate in planning Ntungamo town • Their proposals and suggestions are included in the prepared schemes.
Preparation of base maps	Extraction of relevant information from topographic and cadastre maps		<ul style="list-style-type: none"> ✓ M/s RCL, ✓ Ntungamo DLG; ✓ NMC officials. 	Base maps ready for use
Data collection, Physical Surveys	<ul style="list-style-type: none"> • Field surveys i.e. socio-economic surveys, land use inventories and Ground truthing • Environmental Screening • Community dialoguing and Focus Group Discussions • GPS Mapping • Rapid Urban Appraisals • Key Informant Interviews 	<ul style="list-style-type: none"> ✓ GPS & Laptop Computers, Questionnaire; Interview protocols; Tape measures; Digital Cameras; Writing Pads/books 	<ul style="list-style-type: none"> ✓ M/s RCL, ✓ NMC, ✓ Community; Opinion Leaders; NGOs, CBOs 	<ul style="list-style-type: none"> • Raw data acquired
Data Processing and Analysis	<ul style="list-style-type: none"> • Coding, entry and analysis using SPSS program • Geo-referencing of spatial data • Geo-coding GPS data, extract, overlay, proximity, spatial analysis, conversions, typology building, and symbolization using Arc View 3.2 and AutoCAD • Feedback meetings 	<ul style="list-style-type: none"> ✓ Laptops, stationery, Charts 	<ul style="list-style-type: none"> ✓ M/s RCL, ✓ NMC, 	<ul style="list-style-type: none"> • Analysed data and information for planning
Feedback and Revisions	<ul style="list-style-type: none"> • Discussions 	<ul style="list-style-type: none"> ✓ Notebooks 	<ul style="list-style-type: none"> ✓ M/s RCL; ✓ NMC 	<ul style="list-style-type: none"> • Input from stakeholders
Preparation of base maps	<ul style="list-style-type: none"> • Drafting, Arc GIS and Auto CAD processing 	<ul style="list-style-type: none"> ✓ Topographic maps 	<ul style="list-style-type: none"> ✓ M/s RCL; 	<ul style="list-style-type: none"> • Base maps for the planning areas

Ntungamo Municipality Physical Development Plan (2020 – 2030)

Activity	Methodology	Instruments	Responsible Persons	Output
Preparation of existing land use map	<ul style="list-style-type: none"> Drafting, Arc GIS and Auto CAD processing 	<ul style="list-style-type: none"> ✓ Base maps 	<ul style="list-style-type: none"> ✓ M/s RCL; 	<ul style="list-style-type: none"> Existing land use map for Ntungamo Municipality
Presentation to the local authority and stakeholders	<ul style="list-style-type: none"> Presentation of field findings and existing situations Stakeholders involvement Participatory goal and objectives setting 	<ul style="list-style-type: none"> ✓ Laptop, ✓ projector ✓ pin-ups and hang-ups 	<ul style="list-style-type: none"> ✓ M/s RCL; ✓ NMC 	<ul style="list-style-type: none"> Planning Goals and Objectives set
Physical Development Plan preparation	<ul style="list-style-type: none"> Based on the existing situation and population projections, land use proposals/ land budgeting was made Preparation of alternative physical development plans undertaken 	<ul style="list-style-type: none"> ✓ Cadastral maps; ✓ Tape measures; ✓ Satellite images 	M/s RCL;	<ul style="list-style-type: none"> Alternative PDP Report and Drawing for Ntungamo Municipality Land use proposals
Appraisal / evaluation of alternative plans and selection of the preferred alternative plan	<ul style="list-style-type: none"> Costing the plans i.e. cost of surveying, drainage, road construction for each alternative plan Evaluation of the plans 	<ul style="list-style-type: none"> ✓ Laptop, ✓ projector ✓ pin-ups and hang-ups 	<ul style="list-style-type: none"> ✓ M/s RCL; ✓ NMC 	<ul style="list-style-type: none"> Preferred Alternative Plan selected
Report Writing	MS Word, MS Excel	<ul style="list-style-type: none"> ✓ Laptops, ✓ Printers, ✓ Stationary 	<ul style="list-style-type: none"> ✓ M/s RCL; ✓ NMC 	Ntungamo Municipality 1 st Draft PDP Report and Drawing
Presentation of the draft Final Physical Development Plan to Ntungamo Municipality Physical planning Committee	Power point presentation of both existing situations and the proposals for the development of Ntungamo town to community members and leaders	<ul style="list-style-type: none"> ✓ Laptop, ✓ projector ✓ pin-ups and hang-ups 	<ul style="list-style-type: none"> ✓ M/s RCL; ✓ NMC 	Local authority input / Public participation
Deposit of the Preferred Alternative Plan	Copies of the Preferred Alternative Plan put on deposit at appropriate venues for stakeholders' scrutiny and input for 3 calendar Months (22 nd June 2018 to 22 nd September 2018)	<ul style="list-style-type: none"> ✓ Draft PDPs ✓ Notebooks 	<ul style="list-style-type: none"> ✓ M/s RCL; ✓ NMC 	2 nd Draft Final Physical Development Plan put on deposit
Receive comments/ representations from deposit	Comments will be received from the books provided for comments during the deposit period, scrutinized and necessary amendments made to the plan	<ul style="list-style-type: none"> ✓ Draft PDPs ✓ Laptops, ✓ Notebooks 	<ul style="list-style-type: none"> ✓ M/s RCL; ✓ NMC 	Ntungamo Municipality PDP with input from the public

Ntungamo Municipality Physical Development Plan (2020 – 2030)

Activity	Methodology	Instruments	Responsible Persons	Output
Submission and Presentation of the PDP to the Ntungamo Municipality Physical Planning Committee for Approval	Presentation of the PDP to the Municipality Physical Planning Committee for Input and recommendation to the National Physical Planning Board for comments and approval	<ul style="list-style-type: none"> ✓ Draft PDPs ✓ Laptops, ✓ Notebooks 	<ul style="list-style-type: none"> ✓ M/s RCL; ✓ NMC 	Ntungamo Municipality Physical Development Plan presented and discussed with the Municipality Physical Planning Committee
Presentation of the plans to MoLHUD Technical Committee	Draft Plans will be presented for technical guidance	<ul style="list-style-type: none"> ✓ Draft PDPs ✓ Laptops, ✓ Notebooks 	<ul style="list-style-type: none"> ✓ M/s RCL; ✓ NMC ✓ MoLHUD 	Technical input/comments
Presentation of Final Draft PDP to the Board for Approval	Present the plan	<ul style="list-style-type: none"> ✓ Draft PDPs ✓ Laptops, ✓ Notebooks 	<ul style="list-style-type: none"> ✓ M/s RCL; ✓ NMC ✓ MoLHUD 	Approval by NPPB
Final PDP submission	Submit to the National Physical Planning Board for signing, gazetting and subsequent implementation	Final Ntungamo Municipality PDPs	<ul style="list-style-type: none"> ✓ M/s RCL; ✓ NMC 	Final PDP signed by the NPPB for implementation

Source: M/s Realkon Consults Ltd, June 2018

2.2. RECONNAISSANCE SURVEYS

As a precursor to fieldwork, a reconnaissance visit to Ntungamo Municipality was carried out before the actual designing of the plan. The purpose was to furnish the planning team with the necessary planning information required for the study i.e. identifying the administrative boundaries and scope, establishing the existing socio – economic activities and services. The local council officials, the community, opinion leaders, and officials from Ntungamo Municipality made it possible. Reconnaissance was useful in the establishment of the current administrative boundaries of the town as well as making decisions on the extents of the planning area boundaries (See Fig. 2).

Fig. 2: Reconnaissance survey activities and Findings

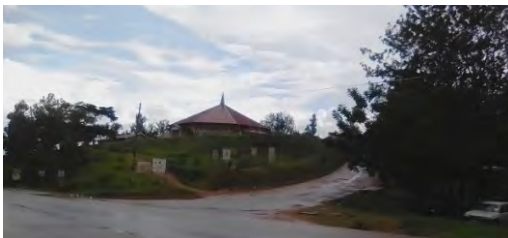


Boundary Mapping and verification with local leaders, Municipal Physical Planner, Town Agent and the Consultant



Field surveys to update the Town Extents along Mirama Hill road

Ntungamo Central Mosque



Catholic church in Ntungamo Municipality

2.3. MOBILIZATION AND CONSULTATIONS WITH STAKEHOLDERS

Consultative meetings with key stakeholders within Ntungamo Municipality were held with a purpose of acquiring pressing issues, needs of the planning area and sensitizing people about the planning exercise (See Fig. 3). This was rendered effective with the

help of the offices of the town clerk and the mayor who effectively mobilized community members and their representatives for consultative meetings. Other methods that employed in mobilising stakeholders for consultative meetings included radio announcements, use of IEC Posters, Door to door mobilisation and use of public address system on mobile vans (See Fig. 4).

The meetings aimed at identifying key physical planning issues in communities, as well as formulation of the planning vision for the town. Stakeholders included elected representatives, local council officials, community members, NGOs and CBOs. It is important to note that the Consultant took particular effort to ensure that the views and interests of the marginalized or under-represented groups are captured in the planning process.

Fig. 3: Stakeholders Consultative and Sensitization Meetings



Fig. 4: IEC Strategy and Posters for Stakeholder Participation



IEC Strategy Posters displayed in Ntungamo

2.4. LITERATURE REVIEW

To effectively understand the assignment and its requirements, it was found necessary to undertake review of relevant literature and documents concerning Ntungamo Municipality. The various documents reviewed included among others the following:

- ✓ the 1995 Constitution of the Republic of Uganda;
- ✓ the Physical Planning Act (2010) and Amendments (2020);
- ✓ the Local Governments Act CAP 243;
- ✓ the National Environment Act CAP 153;
- ✓ National Planning Authority Act (2000);
- ✓ the Land Act CAP 227;
- ✓ the National Land Use Policy 2007;
- ✓ Ntungamo Municipality Five Year Development Plan (2015/16 – 2019/20);
- ✓ Land use and management reports;
- ✓ Urban economic development reports;
- ✓ Environmental reports;
- ✓ Housing Census and Population reports for the planning area; and
- ✓ Ntungamo Municipality Satellite imagery.

2.5. VISIONING PROCESS

The consultant engaged stakeholders in a **Comprehensive Community Visioning Process** from 11th April 2018 to 11th May 2018. The output was a set of vision statements incorporating the community core values and recommendations, goals and concepts, identified likes and dislikes as well as pros and cons of specific topics including the vulnerable and minority groups.

The **Proposed Visioning Model** for Ntungamo Municipality included:

- a) Profiling the community - where are we now?
- b) Analyzing the trends - where are we going?
- c) Creating the Vision for the future - where do we want to be? and
- d) Develop a strategy or strategies - how do we get there?

The resultant community goals and objectives articulated the desires of Ntungamo Municipality community and the preferred community scenario. This were transferred into manageable and feasible community goals and strategies that eventually guided the priorities of the PDP and LPDP.

2.6. COLLECTION OF SPATIAL DATA AND LAND USE INVENTORIES

These were carried out to identify the topography, physical planning constraints, development opportunities and identification of key natural resources of the town. Tools used included observation, measuring tapes, topographic maps, GPS instruments, RTK Machine, pens, pencils and digital cameras among others. Global Position System (GPS) machines were used to geo-code the collected data and facilitate in relating of the socio-economic conditions to their locations. For the update of the existing land use for the planning area, remote sensing technique was employed combined with use of Geographical Information System (GIS).

2.6.1. Physical Surveys

These were carried out to identify topography, planning constraints, development opportunities and identification of key natural resources of the town (See Fig. 5). The tools used included observation, measuring tapes, topographic maps, GPS instruments/ machines, pens, pencils and digital cameras.

Fig. 5: Physical surveys and land use inventories



Planning team mapping infrastructure facilities and land use inventories

Boundary identification in Eastern Ward along Mbarara – Kabale Road

2.6.2. Collection and Review of Spatial Data

Updated topographic maps of Ntungamo Municipality printed on appropriate scales aided spatial data capture. This included social services, infrastructure services, planning area boundary, employment centres, utilities, drainage, and existing physical potentials and development constraints of the town. Mappable/spatial data collected from Institutions for review (see table 5) was included in the prepared base map for Ntungamo Municipality.

Table 5: Data collected from various Institutions

Institution	Data obtained
Department of Lands and Surveys, Entebbe	Contour maps and values, cadastral sheets, topographic maps/sheets, satellite imagery,
National Water and Sewerage Corporation (NW&SC)	Water supply network, sewerage network, future plans for Ntungamo
UEGCL, UETCL, UEDCL, UMEME	Information on existing power supply lines (underground and overhead) in Ntungamo, future plans
Telecom companies (Airtel, MTN, UTL, Africell, Smile etc.)	Data and voice supply networks, future expansion plans
UNRA, MoW&T	Road network categorised by responsible institution
Ministry of Tourism, Wildlife and Antiquities	Future plans and strategies for attracting more tourists to Ntungamo, Policy guidelines, strategies for Uganda's Tourism Sector, etc.

Source: M/s Realtek Consults Ltd, June 2018

2.6.3. Land use Inventory

This involved the physical verification of existing developments within the planning area. The consultant employed the acquired up to date satellite imagery, topographic maps of the planning area, to map out various developments on land. The output was the existing land use map; thematic maps portraying physical infrastructure (roads, power, telecommunication, water supply and sewerage lines, etc.) and social services

(education, health, religious and recreation facilities among others); potentials and constraints of the municipality among others.

The combination of all the above thematic maps formed the Base Map for Ntungamo Municipality, which guided physical planning proposals for the municipality.

2.6.4. Methods of Data Collection

- a) Desktop mapping of existing land uses;
- b) Geo-processing, data transformation and Geo-referencing;
- c) Focus Group Discussions;
- d) Drafting, digitising and GIS Overlays;
- e) Desktop mapping of existing infrastructure and social services;
- f) SWOT Analysis of study area;
- g) Analysis, compilation of data and information;
- h) Presentation to stakeholders;
- i) Deposit the prepared PDP;
- j) Adoption, approval and amendments to the prepared PDP;
- k) Implementation of the prepared PDP; and
- l) Review of the PDP.

2.6.5. Tools for Data Collection

The main instruments for data collection in this situational analysis included:

- a) Questionnaires (pre-coded structured or unstructured);
- b) Key Informant Interview (KII) Guides;
- c) Manuals of instructions (Physical Planning Standards and Guidelines, Acts, Policies and Guides to Research Assistants);
- d) Use of Key Informant Guides and notebooks;
- e) High Resolution GPS Receivers;
- f) Digital Camera for taking critical photographs (where necessary);
- g) Measuring tape;
- h) High resolution satellite imagery;
- i) Topographic sheets for the planning areas; and
- j) Cadastral Information for surveyed plots/land.

2.7. TOPOGRAPHIC SURVEYS

Topographic survey of Ntungamo Municipality was accomplished in April 2018. The survey team commenced with the establishment of the National Control using the Leica 1230+GNSS Triple Frequency Geodetic GPS receivers.

The land surveyor undertook the topographic survey with the aim of producing a new topographic map for Ntungamo Municipality since none was existing (See Map 6). All land within the planning area was defined and boundaries set. All existing structures (commercial, residential, institutional and cultural), the extent of the planning area, physical and social infrastructure facilities (roads, walkways, drainage, electricity lines, sewerage and water lines, water sources – boreholes, water hydrant points, places of worship, schools and recreation

facilities among others) were captured and plotted. Sufficient spot heights were surveyed in three-dimensions to generate a digital terrain model that gave a base for optimum planning and design.

To accomplish the above tasks, a state-of-the-art triple frequency Leica 1230+GNSS GPS receiver in Real Time Kinematic mode was used. The GPS equipment and a Total Station were also used. The topographical survey provided key referential material for use during design of the planning area physical development plans.

During the topographic and cadastral surveys, the following features were picked;

- a) Boundary Points,
- b) Utility (Water Pipes, water sources – boreholes, Electric Poles, Telephone Poles and Sewage Lines),
- c) Structures in the planning area,
- d) Existing Trees, forest reserve areas,
- e) Spot heights and all the necessary data on the ground to reflect the detailed Topographic survey,
- f) Hill tops, valleys and swamps
- g) Access roads, and
- h) Datum points.

2.8. CADASTRAL SURVEYS

The cadastral survey is a prerequisite to land titling. This entailed opening up plot boundaries, checking and confirming the revised plot boundaries for those who had previously surveyed their land parcels and ascertaining the available land for planning. The surveyor crosschecked with the Department of Surveys and Mapping in Entebbe, the Lands Registration Department under the Ministry of Lands, Housing and Urban Development (MoLHUD), Ntungamo District Land Board, and Mbarara Ministry Zonal offices.

Map 6: Topographic Map of Ntungamo Municipality

2.9. DETAIL CAPTURE

Using the established station, the same equipment in Real Time Kinematic (RTK) mode were used with a base set at the new configured station and the other receiver configured as a rover. The station was used to capture all details such as roads, tracks, existing trees, existing houses (semi-permanent and permanent), grazing areas and existing gardens. Identified plot boundary mark stones for some previously surveyed land and any other features that would enable the survey team produce a representative digital terrain model of the planning area were also captured.

During the whole exercise, Ntungamo Municipality representatives including the municipal council Physical Planner, Parish chiefs, LC I Village Chairpersons, and Councillors accompanied the survey team. Other interested opinion leaders such as property owners, religious leaders, health and educational institution leaders within the planning area. More spot heights were captured on the ground where the physical gradient showed fundamental changes especially in the high-rise areas of Ntungamo town centre and low-lying areas occupied by swamps.

2.10. SPATIAL DATA PROCESSING AND ANALYSIS

The captured data was downloaded onto the consultant's team office computers for further processing. The corner beacons that were found on ground were coordinated and used during the geo-referencing of the cadastral print, to convert all the beacons on the sheet into the National Control System and make it possible to positively identify the plot boundary beacons. The result was a Topographic Map for Ntungamo Municipality, which was submitted to the Client for scrutiny and approval.

2.11. SOCIO-ECONOMIC AND HOUSEHOLD SURVEYS

A detailed study of the existing situation in Ntungamo Municipality was undertaken through household and socio-economic surveys conducted in 26 villages that make up the planning area. The households selected for interview were based on the National Population and Housing Census Report, 2014 (UBoS 2016), which indicated that Ntungamo Municipality had a total population of 18,854 persons (9,714 Males and 9,140 Females) with a total number of 4,464 households. Using a 5% sample size of the total number of households in the municipality, 223 households were selected for interview (See table 4).

Two hundred twenty three (223) questionnaires were evenly distributed to all households in the Municipality Divisions, Wards, and Local Councils (See table 6). The questionnaires aided in the collection of socio-economic and demographic data, welfare indicators, community needs and views on spatial development, planning aspirations and development requirements of the municipality. The households were selected by systematic random sampling where records existed and randomly selected where they were not. The household survey questionnaires targeted heads of households, institutions and owners of residential and commercial buildings. The selected sample was evenly distributed among the villages of the planning area to ensure adequate coverage.

Table 6: Sample Size for Household Surveys

Division	Ward Name	No. of h/h	Sample size	No. of LC I Villages	Selected h/h per Village
Central	Kikoni	1,044	52	5	10
	Central	701	35	3	11
Western	Kahunga	946	47	6	7
	Muko	468	24	3	8
Eastern	Park	396	20	3	6
	Kyamate	909	45	6	7
	Total	4,464	223	26	223

Source: M/s Realtek Consult Ltd, June 2018

2.12. TRAINING OF RESEARCH ASSISTANTS

The Consultant conducted a one-day training session for Research assistants on how to administer household survey questionnaires (See Fig. 6). Training session covered review and interpretation of the questionnaire to remove any ambiguities in the set questions, how to approach community members and conduct themselves during the data collection exercise. This ensured that data collected is correct and representative of Ntungamo Municipality.

Fig. 6: Training of Research Assistants



2.13. REVIEW OF NTUNGAMO MUNICIPALITY STRUCTURE PLAN (2008 – 2018)

The consultant reviewed the existing structure plan for Ntungamo Municipality (2008 – 2018) to among others:

- ✓ Check compliance with the existing developments,
- ✓ Ascertain linkages if any, with the 5 Year rolling Development Plans for Ntungamo Municipality (2009/10 – 2014/15; 2015/16 – 2019/20),
- ✓ Verify the level of success and challenges met during the implementation of the structure plan (2008 – 2018), and
- ✓ Generate concerns/issues for stakeholder consultations and inclusion in the proposed PDP for Ntungamo City.

The review of the Structure Plan is discussed in Chapter four Section 4.11, on Page 69 of this report.

2.14. STAKEHOLDER MAPPING AND ANALYSIS

It is important to note that stakeholder mapping is a continuous process and will be undertaken throughout the life span of the project. The Consultant identified stakeholders that will influence and those that will be affected by the Proposed PDP for Ntungamo City. The detailed list of stakeholders identified and the type of information required from each are provided in Appendix 1. Some of the identified Stakeholders included:

- ✓ Security Agencies (UPDF, UPF, and other intelligence bodies),
- ✓ National Forestry Authority (NFA),
- ✓ National Environment Management Authority (NEMA),
- ✓ Government Ministries, Agencies and Departments such as MoLHUD; MoWE; MAAIF; MoW&T; Ministry of Tourism, Wildlife and Antiquities (MoTWA); Ministry of Health; Ministry of Information and Technology; Ministry of Trade, Industry and Cooperatives (MoTIC). Department of Lands and Surveys, UNRA, UEDCL, UETCL, UEGCL, UMEME, and NW&SC.
- ✓ Ntungamo District Local Government,
- ✓ Tour and Travel Companies, and
- ✓ Transport bodies, Bus Operators, Airport Taxi Operators.

2.15. QUANTITATIVE DATA PROCESSING AND ANALYSIS

All data was coded and entered into appropriate computer software for analysis. Analysed data was instrumental in the preparation of reports, charts and various thematic maps for this assignment.

2.16. PREPARATION OF BASE MAPS

Topographic maps generated were used to prepare thematic base maps (i.e. location – regional and national context, existing social services, existing physical infrastructure facilities such as roads, water supply and power lines, existing land use and their distribution, population distribution, potentials and constraints). Thematic maps aided in the preparation of the two (2 No.) Alternative Physical Development Plans from which a preferred alternative plan for Ntungamo Municipality was selected.

The generated thematic maps include:

- i) Location of Ntungamo Municipality in Ntungamo District, South Western Uganda and Albertine Graben Region;
- ii) Administrative boundaries;
- iii) Existing Physical Infrastructure Facilities e.g. roads, power lines and water supply network;
- iv) Existing Social Services such as health facilities, education facilities, water points and sources, market centres, municipal council and district headquarters, Police Station and barracks;
- v) Slope analysis,
- vi) Population density and distribution;
- vii) Physical features such as hills, valleys, swamps/wetlands, rivers and streams;
- viii) Potentials and constraints; and

- ix) Existing land use.

2.17. PREPARATION OF POTENTIALS AND CONSTRAINTS MAP

Land within the boundaries of the planning area was grouped as follows:

- a) Land available for redevelopment – where new proposals may be allowed and
- b) land already committed to other developments and hence unavailable or no go areas.

This helped the consultant to delineate land within Ntungamo, which is already committed, and to determine how much land is available for redevelopment. The result was a potentials and constraints map. This further guided stakeholder consultations and the generation of alternative physical development plan proposals suitable for each of the available pieces of land.

2.18. PREPARATION OF 1ST DRAFT NTUNGAMO MUNICIPALITY PDP

This involved the preparation of 2 No. Alternative Plans using the generated thematic maps portraying location of the planning area, existing land use, potentials and constraints, physical features, physical infrastructure facilities and social services and Plan proposals among others.

2.19. PRESENTATION OF 1ST DRAFT NTUNGAMO MUNICIPALITY PDP TO STAKEHOLDERS

The first draft PDP included Alternative Plan I that was prepared by the Consultant and Alternative Plan II that was generated by stakeholders during their community meetings. Two Alternative Plans were presented to stakeholders for scrutiny and guided on the selection of the preferred alternative plan for Ntungamo Municipality from 11th – 12th June 2018 in Ntungamo town (See table 7 and Fig 7 – 10). During the presentation, stakeholders were further sensitised on several proposals for their town and requested to make comments and/or inputs to the plans.

Table 7: Presentation of Alternative Plans to Stakeholders

Date	Stakeholders Consulted	Venue
11 th June 2018	Municipal Council Staff and Councillors (See Fig. 7)	Municipal Boardroom
11 th June 2018	Eastern Division Stakeholders (See Fig. 8)	Taxi Park
12 th June 2018	Central Division Stakeholders (See Fig. 9)	Central Division offices
12 th June 2018	Western Division Stakeholders (See Fig. 10)	West Division offices

Source: M/s Realtek Consults Ltd, June 2018

After the above presentations, stakeholders were guided on selecting the preferred alternative plan that they felt addressed their aspirations. By show of hands, Alternative Plan 1 was selected by stakeholders with amendments (See Fig. 11).

Fig. 7: Presentation of Alternative PDPs to Councillors and Municipal Council Staff on 11th June 2018



Stakeholders who attended the presentations at Municipal Council Hall



Town Clerk & Mayor in attendance



MoLHUD officials participated in sensitisation meetings

Plan Presentations in progress

Fig. 8: Presentation of Alternative PDPs to Eastern Division Stakeholders on 11th June 2018



Eastern Division Town Clerk delivering Opening Remarks

Stakeholders who attended the presentations at Eastern Division offices



Stakeholders reviewing the prepared Plans



Presentations in progress

Fig. 9: Presentation of Alternative PDPs to Central Division Stakeholders on 12th June 2018



Stakeholders who attended the presentations at Central Division offices



Presentations in progress



Ministry officials in attendance



Stakeholders reviewing the prepared Alternative Plans



Fig. 10: Presentation of Alternative PDPs to Western Division Stakeholders on 12th June 2018



Stakeholders who attended the presentations at Ntungamo Taxi Park



Presentations in progress

Ministry official participate in sensitisation of stakeholders



Stakeholders reviewing the prepared Alternative Plans

Fig. 11: Stakeholders selecting the Preferred Plan



Stakeholders selecting the preferred Alternative Plan

2.20. DISPLAY OF THE DRAFT NTUNGAMO PHYSICAL DEVELOPMENT PLAN AND REPORT

After incorporation of the recommended amendments received during the stakeholders' meetings and presentation of alternative plans, the plan will be put on deposit/public display as required by the Physical Planning Act, 2010 for **three calendar months (90 Calendar Days)** for further scrutiny.

The main objective of depositing/putting the plan on public display is to allow more time for stakeholders to make further input and scrutiny of the Draft PDP before it is presented to the Physical Planning Committee for consideration and adoption.

Ntungamo Municipality Draft PDP (2019 – 2029) shall be put on display at the following venues:

- i). Ntungamo Municipal Council Offices Notice Board;
- ii). Ntungamo Municipality Central Division Offices Notice Board;
- iii). Ntungamo Municipality Western Division Offices Notice Board;
- iv). Ntungamo Municipality Eastern Division Offices Notice Board;
- v). Ntungamo District Local Government Notice Board;
- vi). Ministry of Lands, Housing and Urban Development (MoLHUD) Notice Board; and
- vii). Ministry of Local Government (MoLG) Notice Board.

2.21. PREPARATION OF THE SITUATION ANALYSIS REPORT

The Situation Analysis Report comprising of the adopted methodology, legal and institutional framework, and analysis of existing situation within the planning area was prepared. The Situation Analysis Report is contained in this submission.

2.22. PREPARATION OF THE PHYSICAL DEVELOPMENT PLAN REPORT

A report comprising of the detailed methodology, legal and institutional framework, the design concept, plan proposals, and the implementation strategy will be developed to offer a clear understanding of the plan during implementation. This will be contained in the Draft Physical Development Plan Report for Ntungamo Municipality.

CHAPTER THREE: POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

3.1. POLICY FRAMEWORK

The policy framework that guides physical planning in Uganda is embedded in a number of national policies. National, District, Urban and Local Physical Development Plans (PDPs) are prepared within a solid umbrella policy context including the Vision 2040, the third National Development Plan 2020/21 – 2024/25 and key other government policies. Direction provided by all of these policies guides the preparation of PDPs as the first supporting physical planning framework within an area of jurisdiction. Preparation of PDPs is also done with the knowledge that it must integrate into the broader National and Regional Physical and Economic Development Plans.

3.1.1. The Uganda’s Vision 2040

The Vision 2040 is Uganda’s key development framework. The preparation of National, District, Urban and Local PDPs is guided by the objective of the Vision 2040 that aims at ensuring:

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

The physical planning process for Ntungamo Municipality was carried out through a thorough analysis of the local, regional and national situation to guarantee careful planning and commitment of the municipality’s resources.

3.1.2. The National Physical Development Plan (NPDP 2018 – 2040)

The National Physical Development Plan (NPDP) is the Government of Uganda’s strategy to resolve the conflicting sectorial pressures on uses of land, which is a finite resource, as the population grows, and the country modernizes. The Plan combines the spatial content of the pillars of Vision 2040 and the National Development Plan III according to its different orientations, into one over-arching framework for the Physical Development of Uganda. The NPDP Development Strategy is based on balanced Regional growth, a triangle of international expressways superimposed on the highway system, and urbanization zones are mainly located along these routes. The zones are coordinated with the distribution of agricultural clusters which define areas purely for agriculture and all meaningful protected areas, natural resource blocks, and water systems have been integrated into the final solution. The central objective of the NPDP is to give the physical aspect on Social and Economic development a more central role within Government Policy making.

Ntungamo Municipality PDP adopted provisions of the NPDP on patterns of human settlements, land uses and natural resources by providing a hierarchy of settlements (CBD-admin & commercial; Intermediate and local centers), Natural Resource Blocks, and Protected areas and incorporation of infrastructure networks as transport systems and utility corridors.

3.1.3. The Third National Development Plan (NDP III): 2020/21 – 2024/25

NDP III aims at increasing household incomes and improving the quality of life of Ugandans through sustainable industrialization for inclusive growth, employment, and sustainable wealth creation. Sustainable industrialization will increase the country’s resilience, transform the lives of the people through better incomes and gainful jobs, and strengthen the country’s regional and international competitiveness. Thus, NDP III’s focus is how to harness and sustainably use the country’s natural resources for socio-economic development for the benefit of current and future generations of Ugandans.

The NDP III provides the Government's strategy to pursue urbanization as a broad strategy to guarantee transformation of the economy from a Peasant to a Modern and Prosperous Country. This is in recognition that the sector will also promote optimal and organized land use for urban development; improve urban infrastructure services and utilities; create an inclusive policy and regulatory framework for urban development; develop environmentally resilient urban entities; and increase availability of and access to land for urban expansion and investment.

NDP III further re-emphasises Government's commitment to continually invest in maintaining and developing infrastructure to reduce on the cost of doing business and increase connectivity for the areas lagging behind and provide long term financing for investment in manufacturing and agro-industrialisation.

3.1.4. The National Urban Policy, 2016

This is a framework that ensures sustainable growth and development of cities and towns of all sizes in a country. Such a policy framework incorporates social, economic, political, spatial, environmental and all other relevant factors. The policy framework serves as a guide in making specific decisions at the national and local levels, which affect the pattern of urban growth in the country.

The policy is intended to promote sustainable, spatially integrated and orderly development of urban areas with adequate services, effective and efficient institutions, as well as attracting investments and creating more job opportunities to support socio-economic development of our country.

3.1.5. The Uganda National Land Policy, 2013.

The policy focuses on the key factor of development - land, which continues to be a critical factor as it is the most essential pillar of human existence and national development. Land use planning and regulation is one of the tools identified in the policy as the key to management of land under any tenure to enable the local governments, communities and individuals determine, in advance, the direction and rate of progression of land sector activities of the area.

The Policy under strategy 30 advocates for governments appropriate holding and management of natural resources. The policy calls for an open policy on information to the public and seek consent of communities and local governments concerning prospecting and mining of these resources. The Proposed Ntungamo PDP takes into account all these provisions and guidelines.

3.1.6. The National Land Use Policy, 2006.

A Land Policy is a systematic framework for addressing the role of land in national development, land ownership, distribution, utilization, alienability, management and control. A National Land Use Policy, on the other hand, is an integral element of the National Land Policy. The aim of the National Land Use Policy is to provide general guidance on optimal and sustainable utilization of land, and is based on the analysis of soil types, topographic features, and agro-ecological considerations, as well as social and demographic factors. Importantly, the Land Use Policy must address the various use categories and the conflicts that arise from competing demands for which Ntungamo PDP intends to address.

3.1.7. The National Environment Management Policy, 1994.

The overall goal of the National Environment Management Policy is sustainable social and economic development, which maintains or enhances environmental quality and resource productivity on a long-term basis to meet the needs of the present without compromising the

ability of the future generations to meet their own needs. It also advocates for integration of environmental concerns in all development oriented policies, planning and activities at national, district and local levels, with participation of the people.

3.1.8. The National Policy for Conservation and Management of Wetland Resources (1995)

This policy aims at curtailing the rampant loss of wetland resources and ensuring that benefits from wetlands are sustainable and equitably distributed to all people of Uganda. It also calls for sustainable use of wetlands. The NMC PDP identifies and puts into perspective the key policy goals and objectives to provide a framework for implementing the policy at the urban level and ensure that wetland related issues are adequately incorporated into the proposed PDP.

3.1.9. National Policy on Tourism Development

The Ministry of Tourism, Wildlife, and Antiquities (MoTWA) is guided and regulated by the Constitution of the Republic of Uganda (1995), Tourism Policy (2014), Tourism Act (2008), Uganda Wildlife Act (2000), and Historical Monuments Act (1967) as well as the Universities and other Tertiary Institutions Act (2001). These Policies and Acts mandate MoTWA in conjunction with sector Agencies to set policy, oversee, monitor, and coordinate development of the tourism sector. The mainstream government institutions in charge of tourism include the Ministry of Tourism, Wildlife, and Antiquities (MoTWA), Uganda Tourism Board (UTB), and Uganda Wildlife Authority (UWA). Other government institutions that support tourism are the Uganda Investment Authority (UIA) – for investment promotion; Ministry of Education, Science, Technology and Sports (MoESTS) – for tourism-related training; Ministry of Works and Transport (MoWT) and Civil Aviation Authority (CAA) - for Airline development and regulation; UNRA - for Tourism Roads and Ministry of Health (MoH).

Tourism is guided by the National Tourism Policy 2014 whose main objectives are to ensure delivery of a step-change in the development and functioning of the tourism industry, and to realize Uganda's great but unexploited potential as a major tourist destination. The Policy emphasizes that by 2024, Uganda should offer a broad and enticing range of tourism products and activities, based on its wealth of natural assets and its rich cultural heritage. The Policy and the Tourism Development Master Plan (2014 – 2024) guided the preparation of Ntungamo Municipality PDP as follows:

- (i). Promoting the conservation of natural and cultural heritage resources and other historical artefacts in Ntungamo;
- (ii). Promoting community involvement in plan preparation and identification of potentials for the development and promotion of tourism in the municipality;
- (iii). Promotion of safety and improving security of tourists and tourism assets; and
- (iv). Proposals that promote tourism in the municipality such as the proposed hotels, resorts, cultural centre, proposals to connect Ntungamo Municipality with the neighbouring districts through the improvements on the road network and installation of street lights along all roads in the municipality.

3.2. LEGAL FRAMEWORK

The legal and institutional framework for physical planning in Uganda is enshrined in a number of laws and regulations. The institutional framework in Uganda is the combination of public and quasi-public agencies involved in conceiving, formulating and implementing physical development plans. Physical planning is a legal activity in Uganda, whether planning is at the

lowest level or the highest level of government; there is no planning activity that is carried outside this legal and institutional framework. As such, there are several policy and legal instruments, which guided the preparation of the Ntungamo Municipality Physical Development Plan and form a basis for its implementation and development. This policy and legal instruments were reviewed, to enable the formulation of policy recommendations of the plan. These include:

-

3.2.1. The 1995 Constitution of the Republic of Uganda.

The 1995 Constitution of Uganda, is the supreme law of Uganda and forms the apex of the legal framework. It has several provisions that are relevant to Physical planning in the country. The constitution stipulates that:

“The state shall take all the necessary steps to involve the people in the formulation and implementation of development plans and programs in relation to matters that affect them”.

This forms the basis for community participation in the planning process.

3.2.2. The Local Government Act (CAP 243)

The Act mandates urban councils to prepare or cause to prepare planning schemes for their respective urban councils. The Act under Part 3, outlines the mandate of urban councils in respect of services they are supposed to deliver including road opening and maintenance, street lighting, and other services. This Act forms the basis for preparation of Ntungamo Municipality Physical Development Plan. The Act further stipulates that all LGs such as Districts, Cities, Municipalities, Town Councils, and Urban Growth Centres **MUST** have Physical Development Plans to guide developments in their respective areas.

3.2.3. The Physical Planning Act - 2010

The Act emphasized the Legality of Physical Planning in Uganda. It is a principle statutory instrument governing physical planning in Uganda. The planning process followed to prepare PDPs is provided for under Section 25. Part I Section 3 of the Act, declares the entire country as a planning area. For any declared planning area, an outline scheme and/or a Physical Development Plan is required. The Physical Planning Act (2010), also encourages participatory planning throughout the planning process notably through representations made by the public during the deposit of the PDP.

Part III provides for the establishment of Urban Physical Planning Committees. Section 11 empowers an urban authority to establish an Urban Physical Planning Committee and specifies members to constitute such a committee. Section 12 stipulates functions of the committees notably to take lead in the process of preparing PDPs for their respective urban councils and recommend PDPs to the National Physical Planning Board (NPPB) for consideration.

Section 26 (a) to (h) of the Act details contents of Urban and Local Physical Development Plans. Section 27 (1 and 2) provides for public display of Draft PDPs by either publishing a notice in the Gazette or in any other manner it considers appropriate. This is to invite the public to inspect the prepared draft PDPs at a place and time specified in the notice. Procedure for any person(s) who wishes to make any representations against or objections to the draft plan is also specified while Section 28 (I and II) provides for approval of the PDPs.

3.2.4. The Land Act (CAP 227)

The Act was enacted to implement the constitutional provisions on land ownership and management. Articles 237 (8) and (9) guarantees 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. The Act provides for the tenure, ownership, and management of land, spells out the land tenure systems and all procedures relating to land management in Uganda.

According to Section 42, the government or local government may acquire land in accordance with articles 26 and 237 (2) of the constitution. This is relevant to compulsory acquisition of land as spelt out in the Constitution of Uganda. Section 43 provides for a person who owns or occupies land to manage and utilize the land in accordance with the provisions of the Physical Planning Act, 2010 and any other law relating to use of land. Thus, reinstating Physical Planning Act as the major law relating to use of land.

The implication of this Act in relation to physical planning is that once the PDP is approved by the Board, it becomes law and all land owners must conform to the approved plans. Thus, the onus is on Ntungamo Municipal Council in liaison with Ntungamo District Land Board to ensure that all stakeholders (landowners, community members, technocrats and political leaders) are sensitized about the importance of conforming to the approved plan provisions and their input in facilitating effective plan implementation.

3.2.5. The National Environment Act (CAP 153)

The Act provides tools for environmental management that hitherto had not been deployed, including EIAs. The Act imposes a mandatory duty on a project developer to have Environmental Impact Assessment (EIA) conducted before a project commences. The Act stipulates that NEMA is the principal Agency in Uganda responsible for management of the environment by coordinating, monitoring, regulating, and supervising all activities in the field of environment. Section 18 of the Act specifies the types of projects to be subjected to EIA. EIA should be conducted for planned activities that may, are likely to, or will have significant impacts on the environment. EIA required should be appropriate to the scale and possible effects of the project. Therefore the Act and EIA Regulations, 1998 recognizes three levels of EIA:

- ✓ **Environment Impact Review** for small scale activities that may have significant impact;
- ✓ **Environmental Impact Evaluation** for activities that are likely to have significant impacts; and
- ✓ **Environmental Impact Study** for activities that will have significant impacts.

Determination of the required level of EIA is done through the screening stage, and EIA Guidelines provide a checklist where environmental factors potentially affected are listed.

Sections 34 to 55 of this Act, outlines all relevant environmental management mandates of NEMA in collaboration with the Central Government and Local Governments. Thus, Ntungamo Municipality PDP incorporated all environmental concerns as specified by the Act.

3.2.6. The Forest Act, 1999

This Act provides for the protection, management, and proper utilization of forest resources. Section 3 of the Act empowers the minister by statutory order to declare any area to be a central forest reserve or a local forest reserve or to have an adequate forest estate after instituting such inquiries, as he or she may deem fit. Section 9 (2) empowers the local authority with the approval of the minister to make rules for protection, management and utilization of any forest reserve within its area of jurisdiction. The Act is critical to the Municipality PDP given that such fragile environments are under extreme pressure due to the population explosion and the fragile land tenure system in the country that puts pressure on such lands.

3.2.7. The National Planning Authority Act (2002)

The Act provides operational linkages to the National Physical Planning Board where it is one of the bodies affiliated to the Authority and its head shall be an ex-officio member of the Authority. The Authority shall co-ordinate and harmonize development planning in the country. It shall also support local capacity development for national planning, in particular, to provide support and guidance to the national and local bodies responsible for the decentralized planning process.

The Authority is also to ensure that all national plans are gender and disability sensitive. All physical development plans have to consider gender and disability issues.

The NPA monitors the performance of the decentralized system of development planning. The Act envisages a wide scope planning body anchored in the ministry responsible for finance and economic planning.

3.2.8. The Public Health (Building) Rules (Statutory Instrument 281 - 1)

The Act specifies rules and regulations regarding public health issues such as building regulations. The Act specifies details of building standards under Part VI: Design and Planning of Buildings, which applies to all planning areas declared under the Physical Planning Act, 2010. Residential, public buildings and places of assembly, shops, offices, factories and workshops, stores, schools and temporary buildings are all provided for in this Act.

The Act also empowers the Minister of Health to prohibit erection of premises, which do not meet the minimum standards stipulated in the Act and other regulations. The Act is relevant to planning since it spells out minimum standards and ensures proper public health through the various sections. Thus, all developers are by this law required to erect buildings in compliance with the requirements of the building rules. The Act also specifies the fees payable for obtaining building permissions under section 8. Therefore, this Act by law forms the basis for enforcing building regulations in Ntungamo Municipality.

3.3. PLANNING REGULATIONS

3.3.1. The Physical Planning Regulations

The Physical Planning Regulations give full effect to the Physical Planning Act 2010. Without them, the Act would not be fully implementable.

3.3.2. The National Physical Planning Standards and Guidelines, 2011

Their intention is to guide the formulation and implementation of the PDPs, with the basic aim of ensuring that spatial developments take place in an orderly, coordinated, and efficient manner. They provide clear verifiable minimum standards for development activities. They also provide guidelines on zoning, sub-division, housing design, and standards. The situation analysis of the trends and challenges of physical development in Ntungamo Municipality were carried out with guidance and reference to the National Physical Planning Standards and Guidelines.

3.3.3. The National Environment (Wetlands, River Banks, and Lakeshores Management) Regulations, 2000.

These guide the protection of wetlands, forests, riverbanks and lakeshores, their conservation and wise use. Provisions of these regulations seek to give effect to Article 237(2) of the

Constitution. Regulation 34 specifies that a developer who desires to conduct a project, which may have adverse impacts on a wetland, riverbank, or lakeshore, shall carry out an Environmental Impact Assessment in accordance with the provisions of the Environment Act. Regulation 34(2) requires such a developer to carry out annual audits and monitoring of such activities. Regulation 12 requires that before any of the activities listed in the 2nd Schedule can be undertaken, a permit must be obtained. Regulation 18 states that Riverbanks and lakeshores are held in trust by Government for the common good of Ugandans and prohibits Government from leasing or otherwise alienating any riverbank or lakeshore. The review was to verify compliance, enforcement processes and challenges, institutional linkages and support processes and the requirements that constitute a critical input in the formulation of frameworks for compliance during enforcement of the PDP.

3.3.4. The National Environment (Noise Standards and Control) Regulations

These Regulations provide guidance into maintenance of a healthy environment for all Ugandans, the tranquillity of their surroundings and their psychological well-being by regulating noise levels. They also aim at elevating people's standards of living of the by prescribing acceptable noise levels for different facilities and activities. The review was carried out to extract provisions and input in the frameworks for compliance during enforcement of the PDP.

3.3.5. The National Environment Impact Assessment Regulations, 1998

These Regulations provided guidance into the processes for Environmental Impact Assessment (EIA), including project briefs and Environmental Impact Studies. The Regulation provide for EIA review processes, including invitation of general public comments and public hearings and rejection or cancellation of an EIA certificate.

3.3.6. The National Environment Waste Management Regulation, 1998

These Regulations guided the formulation of regulations for the management of hazardous and non-hazardous wastes. They cover movement of hazardous waste into and out of Uganda, its storage and disposal. The Regulations also provide for conditional licensing of transportation of waste from one district to another. The Regulations prohibit the disposal of untreated waste into the environment. The review of the regulations was carried out to extract provisions and input in the frameworks for compliance during enforcement of the PDP.

3.4. INSTITUTIONAL FRAMEWORK

The institutional framework for physical planning in Uganda is enshrined in a number of laws and regulations. The institutional framework in Uganda is the combination of public and quasi-public agencies involved in conceiving, formulating, and implementing physical development plans. As such the Government has over the years put in place a hierarchy of planning institutions and bodies for policy alignment, planning, implementation and monitoring of the Physical Development Planning process at national, regional and local levels. These institutions are enshrined in Acts of Parliament, policies, guidelines and standards guiding the planning and implementation of plans at all government levels in Uganda (See Fig. 12).

3.4.1. The Directorate of Physical Planning and Urban Development

At National level, the Physical Planning Directorate in the Ministry of Lands, Housing and Urban Development (MoLHUD) is responsible for carrying out National land-use plans and policies with contributions from other related ministries and departments. The bodies, their structure, powers and responsibilities, are defined in the Physical Planning Act (2010). Currently the

Minister of Lands, Housing and Urban Development approves recommended plans by the National Physical Planning Board (NPPB). Any amendments and variations in PDPs cannot be permitted without approval from the Ministry and NPPB.

3.4.2. National Physical Planning Board

This is the body supreme responsible for physical planning in Uganda, as provided for by the Physical Planning Act, 2010. Section 4 – 6 of the Physical Planning Act establishes and defines the composition and functions of the National Physical Planning Board, with the Physical Planning Department as its technical arm and the Local Authorities as committees of the Board. Section 6 (1) a – n; defines the functions of the Board in overseeing and coordinating the execution of the physical planning mandate at the national, regional, district, urban and local levels. The Act also defines a hierarchy of Physical Development Plans, the institutions and bodies required to prepare, approve and amend these plans and the overbearing role of the Board.

The mandate, processes and the institutions that relate with the Board in the planning, approval, amendments of PDPs are a critical component for Ntungamo Municipality physical planning process.

3.4.3. National Environment Management Authority (NEMA)

NEMA is the principal agency in Uganda responsible for overseeing and conducting all aspects of environment in Uganda (GoU, 1995). The institution coordinates monitors and supervises all activities in the field of environment. NEMA has a cross-sectoral mandate to review and approve Environmental Impact Studies submitted to it. NEMA issued guidelines on EIAs (NEMA 1997), and the Environmental Impact Assessment Regulations (GoU, 1998) approved by Act of Parliament. The actual implementation of the EIA process remains a function of the relevant line ministries and departments, the private sector, NGOs and the public. Section 48, sub-section 1 of the National Environment Act CAP 153 states that:

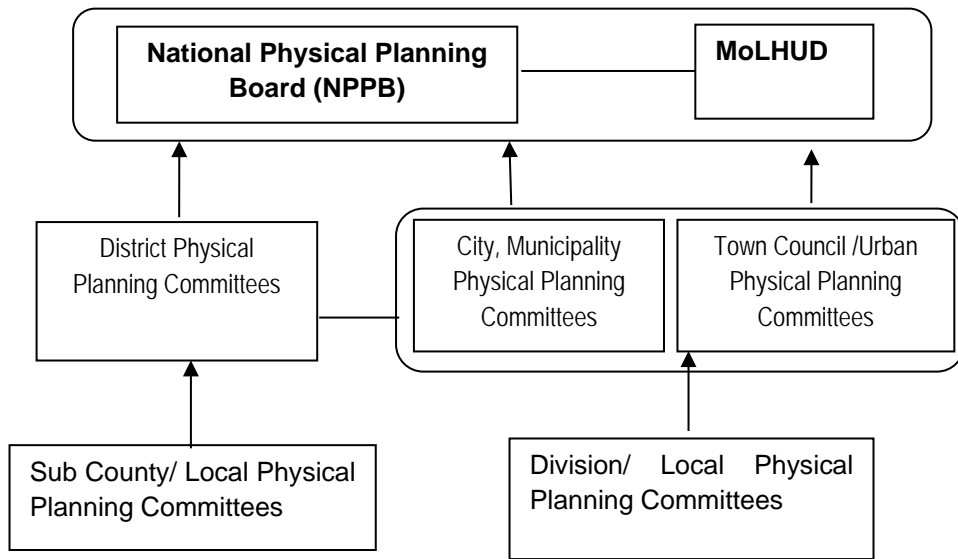
“The local authority in consultation with the lead agency, shall issue guidelines and prescribe measures for land use planning at Local, District and National levels”.

3.4.4. Ntungamo Municipal Council Physical Planning Committee

Section 11 of the Physical Planning Act, 2010 provides for the establishment of the Urban Physical Planning Committees (UPPC) by the municipal council while section 12 and 25 (1) stipulates the functions of the same committees and defines the key actors in the process. The UPPC responsibilities include among others:

- ✓ Initiate the preparation of local physical development plans,
- ✓ Recommend local physical development plans to the district physical planning committee for consideration,
- ✓ Recommending to the district physical planning committee the approval of local physical development plans, and
- ✓ Implementing, in close consultations with the District Physical Planner, Physical Development Plans, Local Area Physical Development Plans and Action Area Plans that address issues detailed in the 3rd Schedule of the Physical Planning Act, 2010.

Fig. 12: The Institutional Framework



Source: Field Data, 2018

CHAPTER FOUR: SITUATION ANALYSIS

This part of the report examines the demographic trends, densities, and population projections for Ntungamo Municipality.

4.1. DEMOGRAPHIC CHARACTERISTICS OF NTUNGAMO MUNICIPALITY

According to the 2014 Uganda Population and Housing Census (UBOS, 2014), Ntungamo Municipality had a total population of 19,451 persons (10,020 Males and 9,431 Females) with an average household size was 5.3 persons (See table 9). However, the municipality's day population is higher than the night population since many people come to the municipality for business and reside outside the municipality.

Table 9: Population Characteristics of the planning area by ward

SN	Name of Ward	Male	Female	Population Figures	
				2014	2018
2.	Kahunga	2,164	1,977	4,141	4,715
3.	Central	1,590	1,455	3,045	3,467
4.	Park	756	795	1,551	1,766
5.	Muko	992	923	1,915	2,181
6.	Kikoni	2,498	2,362	4,860	5,534
7.	Kyamate	2,020	1,919	3,939	4,485
	Total	10,020	9,431	19,451	22,148

Source: Ntungamo Municipal Statistical Abstract, June 2018

Further analysis of the population distribution within the planning area as indicated in table 9 above reveals that, Kikoni had the highest number of people totalling to 4,860 followed by Kahunga with 4,141 persons and Kyamate with a total population of 3,939 people in 2014. Park had the lowest population of 1,551 persons.

The population of Ntungamo municipal council has been steadily increasing since from 13,342 persons in 2004 to 19,451 persons in 2014, reflecting an annual population growth rate of 3.1%. this was further projected to have increased to 22,148 persons by 2018. This is an increase of 2,697 persons in 4 years. This was attributed to rural – urban migration in search of jobs within the urban setting especially in markets and the business centre. However, this rise in population has not been met with adequate planning for the provision of services such as housing, medical care, education, and employment centres.

4.1.1. Ntungamo Municipality Projected Population (2019 – 2029)

Population projections indicated in table 10, 11 and Fig. 13, for the planning area during the 10-year planning period were based on the following development scenarios:

- a) Normal growth trend scenario whereby the current municipality growth rate of 3.3 percent per annum (Ntungamo Municipality 5 Year Development Plan 2020/21 – 2024/25), with accelerated rural-urban migration will result into distinctive mismatch between service delivery and population explosion. This scenario also takes into consideration of the spillage of demand for services from the neighbouring Ntungamo rural sub county and other urban-urban migration from neighbouring towns of Rubaare and Nyamunuuka,
- b) The ideal scenario based on the Urban Growth Rate of 5.6 percent. This is expected to increase the Municipality's population and thus, increased pressure on the existing services, accelerated

rate of urban degeneration and slum development when necessary steps are no taken to arrest the situation at the earliest time possible; and

- c) The best-case scenario where focused and deliberate interventions can result into a municipality that develops in a sustainable, orderly, and balanced manner when deliberate efforts and planning interventions are undertaken to improve service delivery and extend physical infrastructure facilities. This was determined at a mid-point annual population growth rate of 4.5 percent.

The following population projection formula was applied:

$$P_n = P_o (1 + r)^n$$

Where:

1. **P_n** is the projected population;
2. **P_o** is the population of the base year (i.e. 2018);
3. **r** is the annual rate of growth (3.3%); and
4. **n** is the number of intermediary years.

Table 10: Population Projections up to 2030

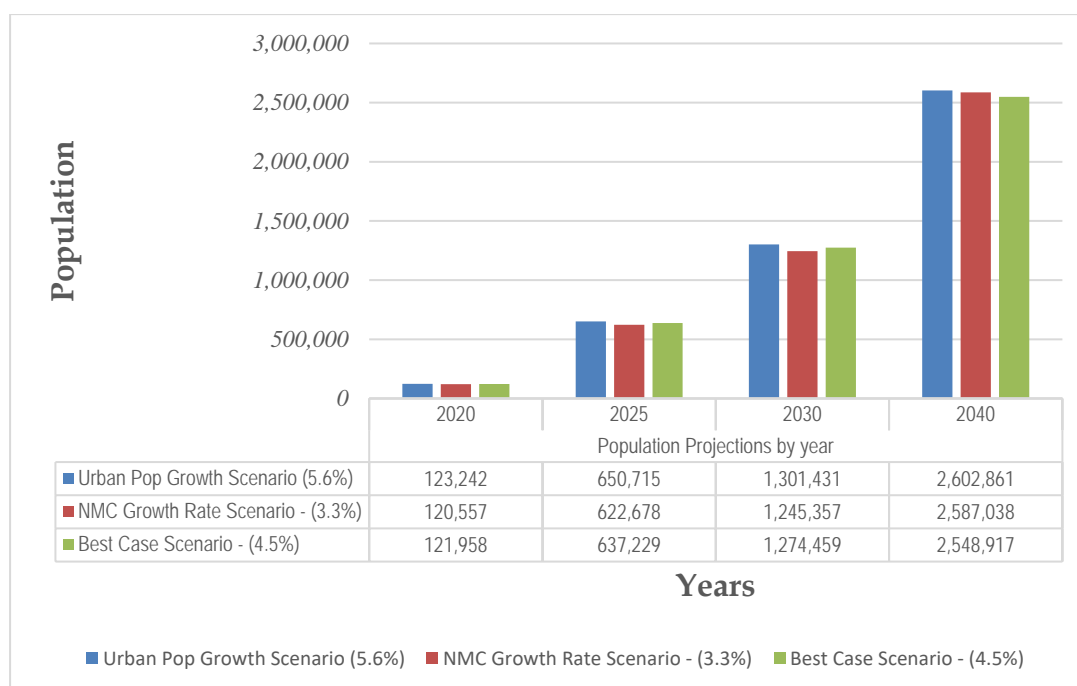
Projection Growth Rates	Division	Wards	Projection Years		
			2020	2025	2030
3.3 %	Eastern	Park	9,827	49,652	99,303
		Kyamatte	24,958	126,098	252,196
	Western	Muko	12,133	61,304	122,609
		Kahunga	26,237	132,564	265,129
	Central	Central	19,293	97,479	194,957
		Kikoni	30,793	155,582	311,163
	Total		125,261	624,704	1,247,387
4.5 %	Eastern	Park	9,725	50,812	101,624
		Kyamatte	24,698	129,045	258,089
	Western	Muko	12,007	62,737	125,474
		Kahunga	25,964	135,662	271,325
	Central	Central	19,092	99,756	199,513
		Kikoni	30,472	159,217	318,434
	Total		121,958	637,229	1,274,459
5.6 %	Eastern	Park	9,827	51,887	103,775
		Kyamatte	24,958	131,776	263,551
	Western	Muko	12,133	64,065	128,129
		Kahunga	26,237	138,533	277,067
	Central	Central	19,293	101,868	203,735
		Kikoni	30,793	162,587	325,174
	Total		123,241	650,716	1,301,431

Source: Analysed by M/S Realtek Consult, Nov 2020

Table 11: Ntungamo MC Population Projections by Growth Scenarios

Growth Scenarios	Base Year Population	Population Projections by year			
	2014	2020	2025	2030	2040
Urban Pop Growth Scenario (5.6%)	19,451	123,242	650,715	1,301,431	2,602,861
NMC Growth Rate Scenario - (3.3%)	19,451	120,557	622,678	1,245,357	2,587,038
Best Case Scenario - (4.5%)	19,451	121,958	637,229	1,274,459	2,548,917

Fig. 13: Ntungamo MC Projected population 2020 – 2030



The year 2014 was adopted as the base year for population projections. From the above tables, it was revealed that Ntungamo Municipality’s population was projected to increase from 19,451 persons in 2014 to 121,958 persons at a growth rate of 4.5 percent by 2020 and further increase to 637,229 persons by 2025. This translates into an addition of 515,271 persons within the first five years (i.e. from 2020 to 2025) while by the year 2030, the municipality’s population was projected to have increased to 1,274,459 persons. This implies that adequate social and infrastructure services must be put in place to cater for this increase in urban population.

It is important to note that, this increase in the municipality’s population will be influenced by natural growth, rural–urban migration and the municipality’s capacity and preparedness to harness the existing potentials for economic development. Such potentials include her location at the node of transport routes, mining, tourist attraction sites, youthful population, rich cultural hinterland, favourable climate, and fertile soils to boost agricultural production, business opportunities, and social services.

The increase in population will require additional social services such as planned settlement neighbourhoods, employment centres, schools, and medical facilities. Thus, the Municipality’s PDP was prepared with this information in mind.

4.1.2. Marital Status

In the Ugandan context, when people get married, it marks the onset of regular exposure to pregnancy thus, used to determine the level of fertility. The marital status of the household head is instrumental in determining the stability of homes and the community of Ntungamo Municipality at large. This information is instrumental in the planning process. It has been proved globally, that married people do not easily migrate as compared to those who are single. This helps the municipality in planning for the people basing on the number, which is stable in the short run.

According to the survey the biggest proportion of the households (82 percent) were married, 9.0 percent were divorced and or separated while 2.6 percent were cohabiting (table 12). The implication is that more than fifty percent of the population in Ntungamo Municipality are less likely to migrate in the shortest time possible and will support any development initiative for the municipality. This facilitates effective planning and policy formulation by the municipality.

Table 12: Marital Status of Respondents

<i>Marital Status</i>	<i>Freq.</i>	<i>%age</i>
<i>Married</i>	<i>64</i>	<i>82.0</i>
<i>Single</i>	<i>4</i>	<i>5.1</i>
<i>Divorced/Widowed</i>	<i>1</i>	<i>1.3</i>
<i>Separated</i>	<i>7</i>	<i>9.0</i>
<i>Cohabiting</i>	<i>2</i>	<i>2.6</i>
<i>Total</i>	<i>78</i>	<i>100</i>

Source: Field Data, June 2018

From the above data, more than eighty percent of the respondents were married. This implies that the municipality's population will increase thus need to plan for bigger population in terms of services such as schools, medical facilities, infrastructure facilities such as water and sewerage services, electricity and waste management among others. Furthermore, unity prevails among the married people, which will boost development in the area. The married are likely support the implementation of the town plan.

4.1.3. Population Structure

The town's population was relatively young (See table 13), with more than forty five percent of the population below 17 years, while more than twenty eight percent of the population was aged between 18 and 30 years. This implies that 74.2 percent of the municipality's population was below 30 years of age. More than twenty-two percent were aged between 31 and 59 years, while only 3.2 percent of the population was aged above 60 years. The implications of this age structure is as follows:

- a) There is need to pay exceptional attention to national and district expenditure and planning for age specific social services such as appropriate health, education, recreation, suitable and affordable housing, and unique social protection programs;
- b) This is a pointer to a high dependence ratio. According to the 2014 census report, 48.9 percent of the population is dependent on 51.1 percent of economic active age. This could be an indicator of the scale and impact of rural urban immigration of young people from the

neighbouring sub counties to the municipality in search of better services and employment in the urban setting;

- c) On the other hand, this high influx of people into the municipality (from neighbouring sub counties, towns and other areas of the district), of working age group provides the municipality with a big active workforce. This therefore, offers an opportunity for economic growth if well tapped;
- d) Finally, there was glaring need to plan for suitable employment centres and workspaces since the social economic survey revealed serious challenge of under employment and unemployment to cater for 45.4 percent of the workforce. The population structure presents a broad –based pattern typical of developing countries, and it depicts potential of a high labour force.

Table 13: Municipality population structure by age group

Age group	Freq.	%age
0 – 17 years	7,759	45.7
18 – 30 years	4,827	28.5
31 – 59 years	3,831	22.6
60 years and over	544	3.2
Total	16,961	100

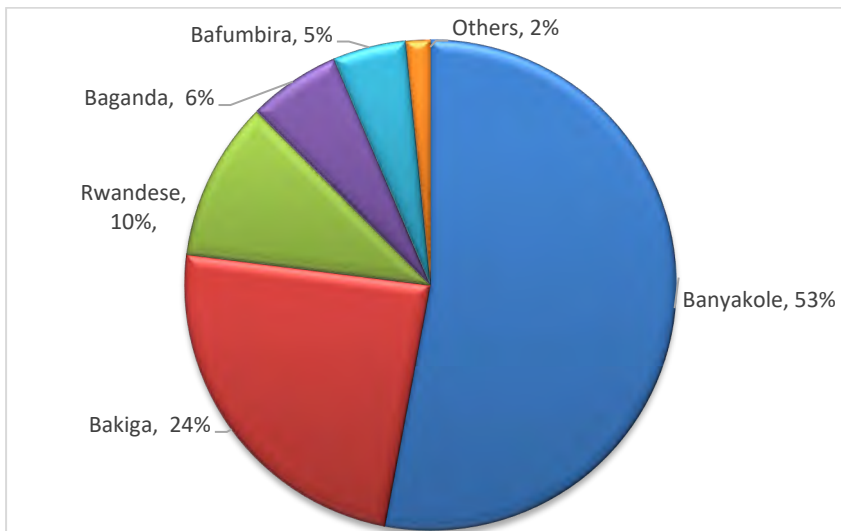
Source: Field Data, June 2018

4.1.4. Ethnicity of residents

Ethnicity refers to the state of belonging to a social group with common culture, tradition and language. The 1995 Constitution of the Republic of Uganda provides several ethnic groups under which Ugandans are classified and the same were adopted by the assignment. Ntungamo municipality has a cosmopolitan population i.e. composed of people from different tribes in Uganda and outside.

Research findings from the sampled households revealed that Banyankore were the majority accounting for fifty three percent followed by the Bakiga at twenty four percent. Other tribes were the Bafumbira at 4.8 percent, Baganda at 6.1 percent, while other tribes such as Banyoro/Batoro, Bakonjo, Acholi, and Langi at two percent. Other nationalities were from Rwanda represented by 10.5 percent and Congolese at two percent as detailed in Fig 14.

Fig. 14: Tribes in Ntungamo Municipality



Source: Field Data, June 2018

The rich and diverse culture of Ntungamo is of great value to the development and promotion of tourism within the municipality through the establishment of a cultural centre for displaying traditional dances, food cuisines, Ankole Cultural Artefacts, traditional attire (*Mushanana*), and handicrafts. This would generate revenue for the municipality and create employment for the youth, thus economic development.

4.1.5. Place of Birth

Sampled households were requested to indicate whether their household members were born within the Municipality or not. Survey findings revealed that eighteen percent of respondents were born outside the municipality and relocated to Ntungamo Municipality while six percent did not reveal their places of birth. Main reason for migration was the availability of fertile land for agriculture and business opportunities in the municipality. This was in form of rural to urban migration where people migrated from the rural parts of the district to the town, urban to urban migration from towns such as Rukungiri, Rubaare, Nyamunuka, and Mbarara. Those who migrated to Ntungamo Municipality mainly came from Kabale, Mbarara, Masaka, Kampala, Bushenyi, Lira, Arua, and Koboko districts in Uganda while others came from Rwanda and the Democratic Republic of Congo. They are permanent residents. Seventy-six percent of Ntungamo town residents were born within the planning area.

The implication is that Ntungamo town was and is still an attractive town and will most likely attract more people since some of the pull factors are still in existence. This will definitely lead to population increase.

4.1.6. Duration of stay

Survey findings revealed that more than sixty - nine percent of the respondents had stayed in the municipality for more than 10 years, 14.10 percent have lived in the municipality for a period of 5 – 9 years while 16.67 percent have lived in the municipality for less than four years as shown in table 14.

Table 14: Duration of stay

<i>Duration</i>	<i>Freq.</i>	<i>%age</i>
<i>More than 10 years</i>	154	69.2
<i>5 - 9 years</i>	31	14.1
<i>1 - 4 years</i>	20	9.0
<i>Less than 1 year</i>	11	5.1
<i>Don't know</i>	6	2.6
Total	223	100

Source: Field Data, June 2018

Since more than eighty-three percent have stayed in the municipality for more than 5 years and are now considered permanent residents, they are more likely willing to support any initiatives aimed at developing Ntungamo Municipality to a better place. Furthermore, 16.67 percent of the respondents who have moved to the municipality in the last four years indicates attractive opportunities within the municipality, which when properly exploited, are likely to pull more people to the municipality, thus population increase.

4.1.7. Education and Literacy

The 1995 Constitution of the Republic of Uganda provides for a right to education for all Ugandans. Articles 30 and 34 make provision for education as a human right, and basic education as an entitlement for all children. The Government of Uganda introduced the Universal Primary Education (UPE) in 1997 and the Universal Secondary Education (USE) programmes in 2007. These policies were the main tools for achieving economic, social and political objectives outlined in the Government White Paper on Education. Further, the third National Development Plan (NDP III) [2020/21 to 2024/25] also emphasizes education as an aspect of human capital development in Uganda. Survey findings revealed the existence of over forty pre-primary and primary schools, three secondary schools, three post-secondary and tertiary institutions and one university within the municipality.

During the study, households were requested to indicate their literacy levels, highest level of education attained and school attendance for their household members as presented in the following sections:

Level of Education

This refers to the highest level of education that an individual/household member has completed. Survey findings revealed that forty one percent had attained primary education, thirty one percent had attained secondary education while six percent had attained tertiary/post-secondary education. More than three percent had never attended school as shown in table 15. This implies that 96.1 percent of population is literate while 3.1 percent were illiterate.

Despite the introduction of UPE programme in 1997 by the government of Uganda, there still exists people who have not attended school. This could imply that by the time UPE was introduced, they were too old to go back to school or had lost interest in education. This is a setback in development since some members cannot read and write and later on

understand development programmes usually written and discussed in English.

There is need for an Adult Education Centre in the municipality where the elderly can pursue further education to improve their literacy levels. The level of education is also an important indicator of the society's stock of human capital and level of socio – economic development of the area.

Table 15: Levels of Education

<i>Level of Education</i>	<i>Freq.</i>	<i>%age</i>
<i>Primary</i>	117	52.5
<i>Secondary</i>	82	36.8
<i>Post-secondary Technical level</i>	17	7.6
<i>None</i>	7	3.1
<i>Total</i>	223	100

Source: Field Data, June 2018

Literacy

This refers to the individual's ability to read with understanding and to write a simple sentence meaningfully in any language. Literacy leads to an increase in opportunities for an individual. Household survey findings revealed that more than ninety-seven percent were literate thus, could read and write. This is higher than the national literacy rate at 72 percent (UBoS, 2014). This is in line with the Constitutional provisions of a right to education for all Ugandans. The high literacy levels among the populace implies that majority of the residents are able to make meaningful contributions, effectively participate in development projects and discussions towards planning of Ntungamo town. This further provides a fertile ground for the development of Ntungamo town.

4.2. HOUSEHOLD CHARACTERISTICS

Household characteristics describe the living conditions of the sampled households that affect the entire household.

4.2.1. Energy for Lighting

Survey findings revealed that sixty-three percent rely on electricity as their main source of light followed by twenty one percent who use paraffin in lamps and wick candles, thirteen percent use solar while four percent rely on other sources of energy (See table 16).

Table 16: Source of energy for lighting

Source	Freq.	%age
<i>Electricity</i>	140	63
<i>Paraffin</i>	46	21
<i>Solar</i>	29	13
<i>Others</i>	9	4
Total	223	100

Source: Field Data, June 2018

The high reliance on the use of electricity implies that Ntungamo town has well-lit homes – a factor that allows entrepreneurs to carry out their business activities as long as they want within the mixed commercial and residential zones. However, there were complaints of high electricity tariffs, load shedding, and fire outbreaks due to reliance on the use of candles and indoor pollution from use of the wick lamps (commonly called the *tadooba*).

4.2.2. Energy for Cooking

The use of alternative sources of energy has several benefits such as reduced over reliance on wood fuel as the main source of fuel for cooking thus protecting the environment and improved health of women through reduced exposure to indoor pollution caused by smoke from wood fuels. Household survey findings revealed that more than sixty-seven percent rely on firewood as the main source of energy for cooking while 27.7 percent use charcoal (see table 17). The high reliance on wood fuel is attributed to the cultural beliefs while other sources of energy are expensive, thus unaffordable.

Table 17: Sources of energy for cooking

Fuel	Freq.	%age
<i>Fire wood</i>	150	67.2
<i>Charcoal</i>	62	27.7
<i>Solar</i>	7	3.4
<i>Gas</i>	2	0.8
<i>Paraffin</i>	2	0.8
Total	223	100

Source: Field Data, June 2018

It is important to note that culture dictates for some tribes to use charcoal or firewood to cook Matooke (plantain) hence high percentage use, for instance, the Baganda comprise six percent of the population. The high reliance on wood fuel has negative effects on the environment such as depletion of the natural resources and a health hazard to users especially women who are exposed to indoor air pollution. Thus, environmentally unfriendly.

4.3. HOUSING CONDITIONS

Housing is one of the basic human needs that impact on health, welfare, social attitudes, and economic productivity of an individual. It is also one of the indicators of a person's standard of living and his or her place in society. The demand for housing remains high in most developing countries including Uganda in general and Ntungamo Municipality in particular. In this section, focus was put on housing characteristics such as type of shelter, nature, household size, age of dwelling unit, and materials used for construction.

4.3.1. Type of Shelter

Survey was carried out to establish the types of residential structures in Ntungamo Municipality with the aim of categorizing all housing units according to typology, nature and construction materials used. Survey findings revealed that semi-detached were the most dominant represented by 35.6 percent, followed by apartments and rentals represented by 33.3 percent of the respondents. Bungalows comprised of 28.9 percent, while other structures stood

at 2.2 percent of all sampled households (See table 18).

Table 18: Type of residential structures

<i>Type of unit</i>	<i>Freq.</i>	<i>%age</i>
<i>Semi-detached</i>	79	35.6
<i>Apartments</i>	74	33.3
<i>Bungalow</i>	64	28.9
<i>Others</i>	5	2.2
Total	223	100

Source: Field Data, June 2018

4.3.2. Nature of Shelter

Ntungamo Municipality has a mixture of housing settlements comprising of permanent, semi-permanent, and temporary housing structures. Survey findings revealed that permanent structures were the majority accounting for 53.3 percent, followed by the semi-permanent structures at 35.6 percent while temporary structures accounted for 11.1 percent (See table 19). This means most structures were satisfactory due to the permanent nature and quality of materials used in the construction and can last for a long time. This implies that there could be huge compensation and demolition costs incurred by the

municipality in case such structures are affected by planning decisions. Thus, a lot of care should be taken when making urban renewal and regeneration proposals within the PDP.

Table 19: Housing types

<i>Nature of shelter</i>	<i>Freq.</i>	<i>%ages</i>
<i>Permanent</i>	119	53.3
<i>Semi-permanent</i>	79	35.6
<i>Temporary</i>	25	11.1
Total	223	100

Source: Field Data, June 2018

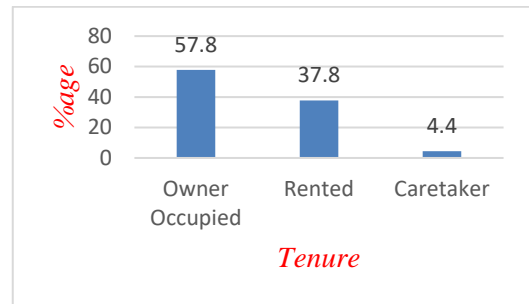
4.3.3. Occupancy of tenure

More than fifty-seven percent of houses were owner occupied, followed by rented dwellings at 37.8 percent while those occupied by caretakers were 4.4 percent of the sampled households (See Fig. 15). The implication to planning is that having

more than fifty-seven percent of the structures that are owner occupied, reflects a significant number of permanent residents with a high stake in the development of the municipality, who will support any development initiatives

for their respective areas. This promotes community development through aspirations, commitment, guidance, and development control. However, exemption of owner occupied housing structures from paying property rates will affect local revenue collections since property rates is one of the major revenue sources and yet more services are still required in the developed neighbourhoods of the municipality.

Fig. 15: Occupancy of tenure



Source: Field Data, June 2018

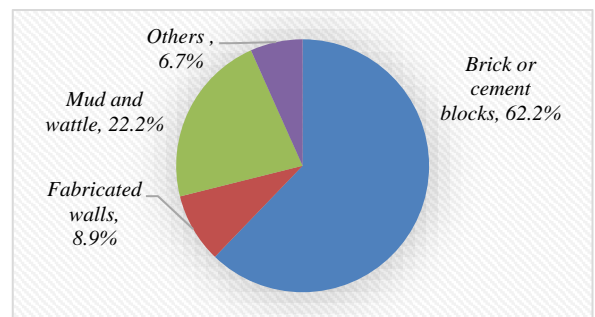
4.3.4. Construction Materials

The type of materials used for construction is a measure of the economic well-being of households because they affect the health status of household members. Findings are discussed as follows:

Wall Materials

More than sixty-two percent of the sampled households lived in dwellings with walls constructed out of permanent wall materials such as brick or cement blocks, followed by dwellings whose walls are made of mud and wattle at twenty-two percent. Structures whose walls were fabricated were 8.9 percent while other walling materials accounted for 6.7 percent of the sampled households (See Fig. 16).

Fig. 16: Wall materials used



Source: Field Data, June 2018

Roof Materials

Roofing materials used included tiles, iron sheets, and grass. The distribution of households by roofing material shows that more than ninety-one percent of households reside in dwellings with iron sheets, followed by grass-thatched houses at 4.4 percent, tile roofed houses at 2.2 percent while other roofing materials accounted for 2.2 percent of the sampled households (See table 20).

Table 20: Roofing Materials used

Roof material	Freq.	%age
Iron Sheets	203	91.1
Grass	10	4.4
Tiles	5	2.2
Others	5	2.2
Total	223	100

Source: Field Data, June 2018

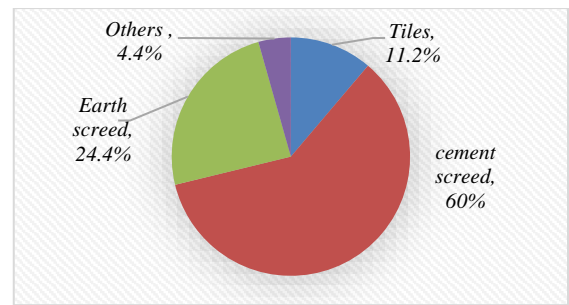
Floor Materials

Floor covering is a term used to generically describe any finish material applied over a floor structure to provide a

walking surface. Survey investigations revealed that 60 percent of households had cement screed floors followed by

earth screed floors at 24.4 percent. Tiled floors constituted 11.2 percent while other floor materials accounted for 4.4 percent (See Fig. 17). Cement screed and tiles were the most dominant permanent floor materials used while rammed earth was the most dominant temporary material used for floor construction.

Fig. 17: Floor materials used



Source: Field Data, June 2018

From the above analysis, it is clear that 62.2 percent of all structures in the municipality had brick and cement walls, 93.3 percent were roofed with iron sheets and tiles while 71.2 percent had cement screed and tiled floor finishes. This implies that there could be huge compensation and demolition costs incurred by the municipality in case certain structures were to be directly affected by the planning decisions since majority of structures are made of permanent materials.

Age of dwelling unit

Survey findings revealed that more than forty-eight percent of households in the municipality were constructed more than ten years ago, followed by houses that were constructed between five and nine years at 15.4 percent while 23.1 percent were constructed in the last 4 years (See table 21). This implies that the municipality is still an attractive place since 38.5 percent of households were constructed in the last ten years. This is attributed to natural population growth, rural-urban and urban-urban migration, real estate developers who opened up more land for human settlement with some structures still under construction while other plots still remain undeveloped and the improved security in the municipality. Thus, more

services and facilities are urgently required in the PDP to cater for the projected increase in the municipality’s population. This is closely related to 30.8 percent of households whose duration of stay in the municipality is below 10 years.

Table 21: Age of dwelling unit

Age of unit	Freq.	%age
10 + years	107	48.1
5 - 9 years	34	15.4
0 – 4 years	51	23.1
Don’t know	30	13.5
Total	223	100

Source: Field Data, June 2018

Structures with more than 10 years old provides opportunities for urban renewal and upgrading aimed at densification of the municipality to provide more accommodation for the projected municipality’s population, services and promote tourism in Ntungamo.

4.4. EXISTING INFRASTRUCTURE SERVICES AND UTILITIES

These include power supply, telecommunications, water supply, and sewage management systems in the municipality.

4.4.1. Electricity/Energy Sources

Ntungamo is connected to the national power grid for electricity supply from Owen Falls Dam at Jinja (See Fig. 18). The electricity infrastructure lines are well laid along the main roads in the Municipal council. However, in some areas, the distribution lines do not follow existing roads and instead pass through private and/or public land and above developments. The biggest challenge is the erratic supply and outages. To overcome this, residents have resorted to the use of generators and solar panels.

Fig. 18: Power Supply in the municipality



Power transformer and power line in Eastern Ward

4.4.2. Information, Communication, and Technology

The available mobile telecommunication networks included Airtel, MTN and Africell (See Fig. 19). Their presence has enhanced business development in the area by easing communication and facilitated the transfer of finances through mobile money services.

Fig. 19: Telecommunication masts



4.4.3. Water Sources

Access to safe water and sanitation are very crucial in maintaining hygiene within the household and are a critical determinant of the health status of household members. Water is used domestically for cooking and washing but also serves industrial purposes where it is a raw material for production. Survey findings revealed a number of water sources including improved water sources such as piped water manned by National Water and Sewerage Cooperation (NW&SC) accessed through in-house connections, water kiosks and stand pipes, water drawn from protected springs and deep boreholes (See Fig. 20). Unimproved water sources included unprotected wells, surface water sources such as swamps, ponds, and streams.

Tap water is accessed at fees ranging from UGX 150 to UGX 300. This translates into UGX 34,000 on average per household per month. This however, is not affordable by majority who stay in informal settlements who have resorted to springs and wells, which are free. During the dry season, the number of users increase due to constant outages from the piped water system.

The central part of the municipality is connected to the piped water system provided by NW&SC from their reservoir tank at Nyabubare hill in Eastern ward. Water is supplied to the residents through a network of public standpipes and in-house connections. Other areas of the municipality still rely on other water sources such as protected and unprotected springs, boreholes, springs, and swamps/streams. However, these sources are shared by residents and animals and are prone to contamination. Thus, not safe for human contamination. To overcome

this, some households and institutions have resorted to rainwater harvesting where rainwater collection tanks have been installed.

Fig. 20: Water sources



Protected spring at the junction off Jerusalem hotel

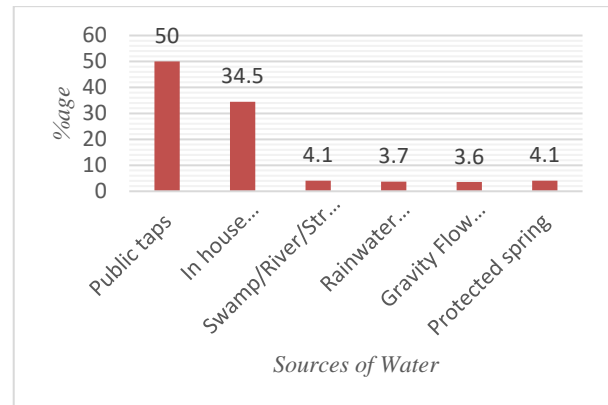


National Water and Sewerage Corporation, Offices, Ntungamo

Source: Field Data, June 2018

Access to improved water is a prerequisite for improved health. Survey findings revealed that 50 percent of households relied on public taps for their drinking water, 34.5 percent had in-house water connections, and 3.6 percent relied on Gravity Flow Scheme. More than eight percent of households used water from protected springs, swamps, rivers or streams while rainwater harvesting accounted for 3.4 percent of water sources (See Fig. 21).

Fig. 21: Sources of drinking water



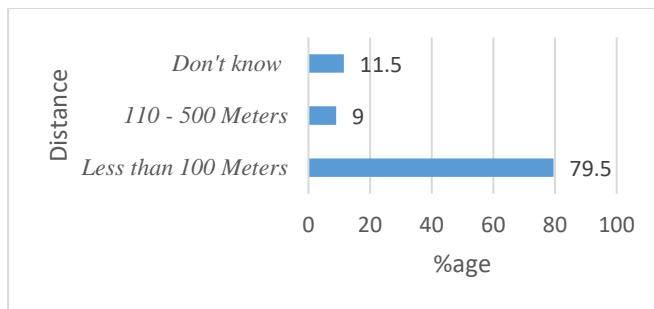
Source: Field Data, June 2018

Since, access to improved water is a measure of improved health among the municipality residents, then overall, 84.5 percent of the population had access to improved water sources and better health. This implies that they are less likely to suffer from diseases related to use of contaminated water thus, can reinvest the acquired finances for economic development of their town.

Distance to source of water

Overall, more than seventy-nine percent of households travel less than 100 metres to their main sources of water. This includes households with in-house water connections and those that have public taps within their neighbourhoods. Only nine percent travel more than 100 metres to their sources of water (See Fig. 22).

Fig. 22: Distance to source of water



Source: Field Data, June 2018

However, these water sources are faced with challenges of unstable or erratic water supply especially in the piped water supply network and congestion at several public water standpipes that are shared by several households. Other sources have dirty water, thus not safe for human consumption while some standpipes have malfunctioned due to poor maintenance and usage.

4.5. SANITATION FACILITIES

4.5.1. Availability of toilet facility

Absence of proper human waste disposal methods is a burden to public health provision. Proper human waste disposal involves the use of a toilet facility, which is well maintained and free from flies. Improved sanitation facilities included the use of pour flush toilet, VIP Latrine, covered pit latrine private with a slab, covered pit latrine public with a slab and Eco-san. The most commonly used toilet facility was covered pit latrine represented by 52.3 percent followed by VIP latrine at 36.4 while 11.4 percent relied on pour flush toilets to manage their human excreta (See table 22). High dependence

on the use of pit latrines pose high risk of underground water pollution with pathogenic organisms thus making water from such sources unsafe for human consumption.

Table 22: Excreta Management Systems

Type	Freq.	%age
Pit latrine	117	52.3
VIP latrine	81	36.4
Pour flush toilet	25	11.4
Total	223	100

Source: Field Data, June 2018

Survey findings further revealed that 97.7 percent of all sanitary facilities were in good condition and hence usable. Only 2.3 percent were not usable partly due to being full, crowded, dirty, lacked privacy or had dangerous structures.

On the means of emptying employed by households, findings revealed that more than twenty-eight percent use vacuum trucks, while 17.8 percent of households use hired labour. More than thirty-seven percent revealed that they had never emptied their toilet facilities while 15.6 percent didn't know the means of emptying used (See table 23).

Table 23: Means of Emptying toilets

Means of emptying	Freq.	%age
Vacuum truck	64	28.9
Hired labourers	40	17.8
Never emptied	84	37.8
Don't know	35	15.6
Total	223	100

Source: Field Data, June 2018

On the mode of use, findings revealed that more than fifty-five percent of toilet facilities in the municipality were private, 41.9 percent were shared amongst several households (See table 24) while 2.3 percent were rented.

Table 24: Mode of use

<i>h/h that share</i>	<i>Freq.</i>	<i>%age</i>
2 – 3	80	35.5
4 - 5	70	31.2
6+	74	33.3
Total	224	100

Source: Field Data, June 2018

4.5.2. Sewage Management System

Areas covered by the National Water and Sewerage cooperation (NW&SC) network use of water borne toilet systems connected to the sewerage system operated and managed by NW&SC. The municipality has a well-planned and operational sewerage lagoon (See Fig. 23).

Fig. 23: Sewerage Lagoons



Team at the Sewerage treatment area

Source: Field Data, June 2018

4.5.3. Abattoir

The existing Municipality abattoir is located along Kabale Road in Cell 3, Park ward Eastern Division, within the existing commercial area (See Fig. 24). However, the Municipality has embarked on the construction of the new abattoir with all the required facilities such as the hung place, storage facilities, and waste management pit within the proposed industrial area.

Fig. 24: Abattoir in the municipality



Slaughter slab for the municipality

4.5.4. Solid Waste Disposal

Solid waste management refers to the manner in which wastes (degradable and non-biodegradable) are stored, collected, transported, and disposed-off in an environmental friendly manner. The method through which households dispose-off their solid waste can pose a risk to public health. Wastes generated in the town is a combination of biodegradable and non-biodegradable waste materials including household wastes, institutional wastes, industrial and commercial wastes.

The municipality has a waste dumping site located in Orubare cell below Kabale road along Muyongo Swamp (See Fig. 25). Households dispose-off their solid waste by open dumping and this pose a risk to public health. There is no sorting of wastes practiced by residents from the generation point/source. Wastes are disposed-off in open spaces, forest reserves, swamps, and drainage channels. NMC has designated solid waste holding bays, bins and skips, where residents dump their wastes awaiting collection to the dumping site by garbage collection trucks and tractors. These collect

wastes at regular intervals from such points. There are private service providers who collect waste from residential premises and transport the wastes to the waste dumping site.

The most commonly used method of solid waste disposal by the households was open dumping in their gardens and open spaces at 32.1 percent, followed by use of dustbins at 28.2 percent while open burning was represented by 16.7 percent (See table 25). This implies that more effort and funding are required to sensitise residents on the dangers of open dumping and provision of more garbage skips in areas where they do not exist while increasing the waste collection rates and frequency for skips within the municipality. This would ensure that

residents live in clean neighbourhoods free from pollution and are less susceptible to disease outbreaks and vermin infestations.

Table 251: Garbage disposal

<i>Disposal Methods</i>	<i>Freq.</i>	<i>%age</i>
<i>Open dump</i>	71	32.1
<i>Dust bin</i>	63	28.2
<i>Open burning</i>	37	16.7
<i>Rubbish pit</i>	29	12.8
<i>None</i>	23	10.3
Total	223	100

Source: Field Data, June 2018

Fig. 25: Solid Waste Management practices



Solid waste dumping site

Source: Field Data, June 2018

4.6. THE LOCAL ECONOMIC DEVELOPMENT (LED)

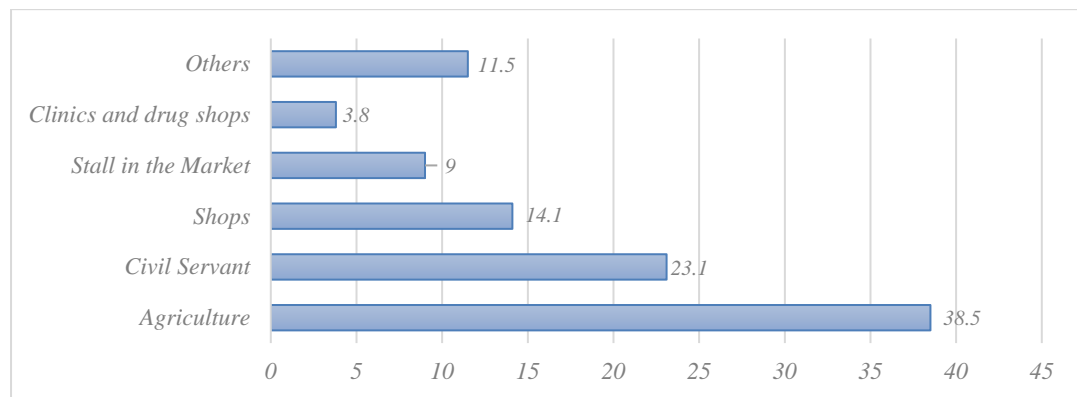
This section describes the processes undertaken by Ntungamo Municipality in close liaison with the business operators and civil society groups to raise income sustainably and improve lives of the municipality residents. Local Economic Development (LED) as a development strategy has in the recent past gained widespread popularity and acceptance as a grass-root-based approach, especially in the developing world. LED is an empowering strategy with the overall goal of empowering the grass-root people so that they are able to initiate and propel their local socioeconomic prosperity through the promotion of self-reliance.

4.6.1 Key Economic Activities in the town

Economic activity refers to work people do to enhance their quality of life. This involves production of goods and services for sale or own consumption. Socio-economic surveys carried out revealed that 38.5 percent of the population still rely on subsistence farming (growing of crops and rearing of animals), while 14.1 percent operate wholesale and retail business enterprises in agricultural produce and general merchandise. Other enterprises deal in carpentry and furniture workshops, welding and joinery, roadside food and snack vending kiosks, saloon and beauty parlours, tailoring, shoe shining and repair services, music and video recording libraries, video halls, water vending, recycling and selling bi-products such as cowhide sandals and sandals made out of old tyres, flower pots and vessels. Selling of firewood and charcoal, automobile repair garages and workshops, potted flowers, craft making and making of briquettes from peels are other activities that take place at people’s homesteads, their backyards and rented kiosks along access roads. Surveys further revealed that 9.0 percent operate stalls in the open-air markets, petty trading, and hawking, street vending in all sorts of goods such as clothing, newspaper vending, home utensils, while 3.8 percent operate drug shops and clinics.

Further analyses revealed that more than twenty three percent were civil servants while 11.5 percent are engaged in activities such as transportation using boda-boda (motor cycles and bicycles), taxis and buses (see Fig 26).

Fig. 26: Economic activities



Source: Field data, June 2018

Agriculture is one of the key economic activities practiced in Ntungamo Municipality as revealed by Ntungamo Municipality 5 Year Development Plan [2015/16 – 2019/20]). Ntungamo has an agricultural based economy with most inhabitants being subsistence farmers growing mainly bananas, beans, maize, groundnuts, millet, sorghum and coffee growing, livestock rearing mainly cattle (with local Ankole cattle being characterised by their long horns), and improved breeds, goats and sheep. Coffee sold to local traders who ship the beans to South America for processing and later taken to Europe for commercial packing and distribution. The same coffee may end up back in Ntungamo for sale in local shops.

Majority of farmers own small-scale agricultural farms where they grow both perennial and annual crops, rear livestock, poultry and carryout fish farming mainly for home consumption. It is important to note that even in the classified residential areas; there are pockets of backyard farming and small gardens. Other households that either operate business enterprises, have formal employment or are engaged in tourism related activities such as tour and travel, recreation and leisure activities also engage

in subsistence agricultural activities to supplement their household incomes and for food security reasons.

Perennial crops grown included Banana (*Matooke*), yams and fruits such as avocados, mangoes, oranges and lemons while annual crops grown included maize, potatoes, beans, cassava, groundnuts, vegetables such as tomatoes and onions, grown for home consumption and sale in the nearby markets for money.

Farmers also engaged in animal husbandry characterised by cattle rearing on small and large farmlands for milk (diary) and beef. Other animals reared included pigs, goats, sheep, poultry and fish farming. However, some animals were loitering along streets, while others were grazing along streets or tied to graze in road reserves. It is important to note more farmers have continued taking on modern farming practices spearheaded by the OWC programme under the stewardship of the UPDF. This is a positive trend since improved breeds give higher yields and hence contribute to higher household incomes.

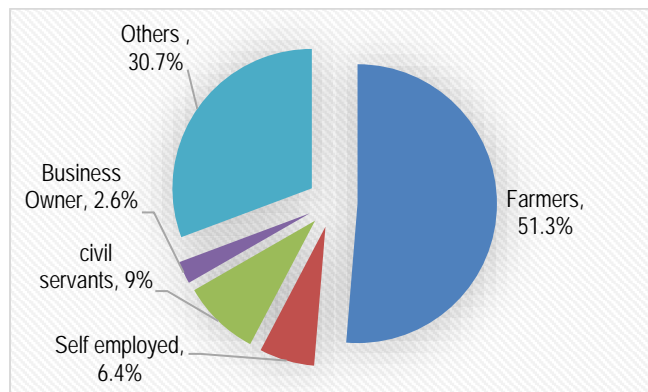
Since the majority of residents practice farming as their main source of income, there is need to revive co-operative societies to bring farmers together for better farming practices, establishment of residential settlements that encourage urban farming to promote food security, and setting up modern garbage collection facilities that encourage separation of biodegradable materials from non-biodegradable material for farmyard manure.

Others are engaged in trading, small manufacturing and in public and private sector employment servicing the local administration. Traders are also engaged in fishing mainly from Lake Nyabihoko, mud fish is also captured in more localised swampy areas, production of local Waragi from peeled ripe banana juice; iron smelting by traditional local blacksmiths known as the "*Abaheesi*", pottery making, basket weaving, drum and jewellery making, and brick making.

4.6.2. Principal occupation of household head

Occupation refers to the kind of work an individual does irrespective of the qualification, age or place of work. Findings revealed that 51.3 percent were farmers, 6.4 percent were self-employed businesspersons, 9.0 percent were civil servants, while 30.7 percent were engaged in activities such as transportation, and operated market stalls (See Fig. 27).

Fig. 27: Occupation of household heads



Source: Field Data, June 2018

4.6.3. Occupation of the working population

Surveys further collected information on the various activities carried out by the sampled households. Findings revealed that the economy of Ntungamo Municipality is dependant mainly on the formal commercial sector, followed by the informal commercial sector, recreation, and leisure. Sixty percent of the working population was engaged in formal commercial sector, informal commercial activities accounted for thirty percent, education accounting for three percent while leisure and recreation accounted for one percent. Motorcycle (*Boda-boda*) riders are a growing occupation in Uganda and Ntungamo Municipality is no exception. This activity accounted for six percent of the working population. The implication is that since majority are employed, it implies that they can engage in development programmes of the municipality and are in better position to look after their families.

4.6.4. Population not working

Majority of the population aged 18 years and below were not working probably because some of them were full time students. They accounted for ninety three percent of the population, which is not working while the retired and unemployed persons accounted for seven percent of the responses obtained from surveys. The implication is that the PDP should explore strategies to increase employment centres and tertiary institutions to skill the youth in self-employment.

4.6.5. Government Programmes to enhance household incomes

They include the Operation Wealth Creation (OWC) operated by the UPDF in all local governments in Uganda. The programme helps to provide agricultural extension services, inputs and improved seeds under NAADS to farmers in the municipality. The programme has ensured that people at community level are employed in agriculture and has helped to transform farmers through provision of advice to farmers, improved seeds, seedlings, heads of cattle, piglets, goats, tractors and construction of different business enterprises in agro-processing such as maize milling machines and juice extraction facilities. This implies that the government is supporting farmers to improve their production and products by adding value to their products. This in turn leads to improved household incomes and economic development. According to Ntungamo Municipality 5 Year Development Plan (2015/16 – 2019/20), OWC programme has benefitted 6,650 farmers, majority of whom are females.

Community Driven Development (CDD) and Youth Livelihood Programmes (YLP) are other government programmes that have mobilised stakeholders to participate in development with the main aim of increasing household incomes and poverty alleviation. These have benefitted stakeholders in the municipality to mobilise themselves into groups, acquire skills for development and receive funds in form of revolving funds to increase outreach and enhance sustainability of the programme. These programmes have helped the residents to set up poultry farms, carpentry and joinery workshops, metal fabrication workshops, while others have invested the funds in livestock farming projects. Many residents are now employed in gainful business enterprises because of the above government programmes and are able to acquire basic needs in life such as medical care, education, food, shelter, as well as clothing.

4.6.6. Summary of livelihood analysis and income levels

Findings revealed that the major source of livelihood in the municipality was trade and commerce, followed by employment in the service sector, agriculture/farming, and

housework related employment. Others included carpentry, welding and metal fabrication, building construction, brick making, sand quarrying, as well as transportation using boda-boda. Table 26 gives a summary of the livelihood analysis of Ntungamo Municipality.

Table 26: Summary of the Livelihood analysis

Key source of livelihood	Key Contributions	Comments
<ul style="list-style-type: none"> ▪ Business / trading ▪ Subsistence farming (beans, maize, cassava, sweet and Irish potatoes, bananas, etc.) ▪ Animal husbandry 	<ul style="list-style-type: none"> ▪ Source of income and livelihood ▪ Contributing to food security ▪ Means of survival 	<ul style="list-style-type: none"> ▪ Erratic prices for cash crops ▪ Poor farming methods practiced ▪ Inadequate markets

Source: Field Data, June 2018

4.6.7. Conclusion

The municipality’s economy is still weak characterised by urban poverty like in other urban areas of Uganda. As earlier noted, 30 percent of households depend on informal business activities for their livelihoods. This includes 7.4 percent of households that were doing other activities to survive including farming, petty trading, and providing casual and manual labour while Six percent of the sampled households were unemployed. Twenty three percent of the population aged 18 to 65 years were not in school and unemployed. This means that the municipality is facing a big challenge of unemployment and underemployment with agriculture as the dominant sector of employment. With the increasing level of development, agriculture will be affected greatly since much of the agricultural land in the municipality will be taken over by other developments.

4.7. DEVELOPMENT POTENTIALS

The municipality has several potentials that guide the preparation of the municipality zoning plan as discussed below:

4.7.1. Location Factor

Ntungamo Municipality’s location at the junction of Mbarara – Kabale road, Ntungamo – Mira Hill road and Ntungamo – Rukungiri road provides abundant trade opportunities for town growth. The highways provide Ntungamo town with linkages to major towns in western Uganda including Mbarara, Bushenyi, Rukungiri, Kabale, Kisoro, and Isingiro in Uganda and the neighbouring Rwanda, Tanzania and the Democratic Republic of Congo. Ntungamo Municipality can therefore exploit this potential by providing services such as ample parking facilities, accommodation, restaurants and food centres, entertainment centres, museums, and tourism related activities for those plying these routes. The revenues from such investments can be ploughed back into town development.

4.7.2. Existing Infrastructure Services

The municipality has a lot of infrastructure facilities and services in place such as education institutions, health facilities, roads, water supply lines, power line and telecommunication services. The available infrastructure can further boost economic activities and attract more investments to the area. This will be broaden the revenue

base leading to further improvement of the town's infrastructure. Such developments will attract other support facilities and infrastructure in the town, thus growth of the town.

4.7.3. Land for future developments

Ntungamo Municipality has vast land suitable for future developments since most of it is still under agricultural use. For any investment to occur, land is a paramount factor, though ownership is vested in the hands of private individuals, as a planning authority, the council has the mandate plan the land for its appropriate use.

4.7.4. Agriculture

Agricultural production taking place within the town boundaries is able to sustain the food demands of the population within and beyond. Crops such as maize, beans, tomatoes, bananas and cassava are always marketed to other areas to generate income for individual farming households. When the generated revenue is reinvested within the town, this will bring about economic development in Ntungamo Municipality.

4.7.5. Forested areas

The several planted forests within the planning area are important assets for Ntungamo Municipality. Tree planting should be upheld since the benefits are enormous to both the municipality and the town inhabitants. Forests regulate climatic conditions of an area, help in controlling soil erosion and inhabitants generate income from such forests. Forests also serve as wind breakers and when sustainably managed provide raw materials for the furniture industry, thus increasing income sources for the municipality.

4.7.6. Existing Developments

The existing developments in Ntungamo Municipality planning area can further boost the growth and development of the town. The town will attract migrants to settle within the existing developments in town, thus increase town population. The increase in population will increase demand for more services, which subsequently leads to growth and development of the town.

4.7.7. Tourism Potentials

The tourism potential of the Municipality can be harnessed through popularising the famous extrusive rocks at Karegyeya and having well-furnished stop centres to connect tourists from Bwindi in Kisoro and tap tourist heading to Queen Elizabeth National Park.

4.7.8. Favourable Climate

Ntungamo Municipality experiences conducive climate due to her location within the eastern topographical rainfall zone. Rainfall is bimodal in nature with an average rainfall in the ranges of 1,200 mm annually from April to May and August to November. The fertile soils and two rainy seasons provides a better avenue for the promotion of agro-processing factories. These will improve household incomes and council revenue in form of taxes.

4.7.9. Minerals

There are deposits of quality sand and stones that will boost the construction industry within the planning area.

4.7.10. Political and Community Will

During stakeholder consultative workshops, Ntungamo Municipality residents' will to plan and develop their town was evident. This was also expressed by the local leadership. This is a milestone in achieving development of Ntungamo town.

4.8. DEVELOPMENT CONSTRAINTS/CHALLENGES

- a) Land Tenure system: Land belongs to individuals; therefore, its acquisition for purposes of development is costly since compensation is involved.
- b) Financial constraints/inadequate revenue base. The Municipal Council is limited by insufficient revenue, making it difficult to implement plans and undertake the necessary developments.
- c) Poverty; Majority of the population can hardly afford basic necessities of life such as food, clothing and shelter. These people are less-powerful to influence the conditions in and around the planning area.
- d) High unemployment especially among the youths
- e) Inadequate piped water supply to the entire town;
- f) The road network is not fully developed to easily access all the parts of the town;
- g) Inadequate facilitation of municipality staff and agents to undertake supervision of lower local councils within Ntungamo Municipality;
- h) Inadequate capacity at the municipality level to enact and formulate byelaws and policies that address the most critical issues such as sanitation, garbage management, protection of environmental sensitive areas and adherence to physical planning among others; and
- i) Weak monitoring and evaluation systems at council level that has resulted in poor implementation of government programs and projects, thus poor service delivery.

4.9. HIV/AIDS

Ntungamo Municipality like other urban areas in Uganda is faced with the challenge of HIV/AIDS. Its impacts are felt across all sectors of the economy. Many families lost their productive members, thereby worsening the levels of poverty. Similarly, the burden of looking after orphans left behind due to HIV/AIDS has shifted the burden to the old people and children who in most cases have no gainful employment.

HIV/AIDS was escalated by cultural practices that hinders open discussions on sexuality, prostitution, and cross border trade, inadequate knowledge of current scientific facts on sexuality and HIV/AIDS, and powerful negative influence of the youth by the electronic media. Additionally, drug and substance abuse amongst the youth makes them more vulnerable to crime and HIV/AIDS. Rampant poverty and high rates of unemployment has forced many youth and women to move from one place to the other in search of jobs, which also exposes them to HIV/AIDS.

HIV/AIDS services such as HIV Counselling and Testing (HCT), prevention of Mother to Child Transmission (PMTCT) and Anti-Retroviral Treatment (ART), distribution of condoms, care and treatment and social support services are only limited to health facilities. There is need for increasing coverage through the introduction of Outreach programmes and establishment of Static sites to cater for the old people who cannot easily commute to these facilities and those who are still unwilling to seek medical care from selected facilities.

However, staffing levels at the existing health facilities are not sufficient to deliver comprehensive and quality health care services to the entire population. For instance, staffing levels for HC III stands at 65.2%, thus a staffing gap of 34.8%. Thus, urgent need to lobby responsible authorities to deploy additional staff to bridge the existing gap and improve on the quality of healthcare service delivery in Ntungamo.

The AIDS scourge has complicated the health situation by increasing opportunistic infections and mortality. Though AIDS awareness is high, there is still need to sensitize the public because the rate of HIV/AIDS infections is on the rise. To reduce HIV/AIDS spread, the municipality should adopt the following awareness campaigns:

- a) Increasing the points of condoms distribution to communities;
- b) Forming groups and associations to sensitize the communities;
- c) Displaying posters advocating for Abstinences, use of Condoms and Faithfulness;
- d) Forming positive living groups to carry out sensitization campaigns through workshops and seminars about HIV/AIDS;
- e) Carryout HIV testing and counselling campaigns; and
- f) Use of several channels of communication such as Radios (FM Stations and Community Radios) and TV adverts to increase the campaigns against the scourge.

4.10. GENDER CONCERNS AND MAINSTREAMING

Just like most towns in Uganda, Ntungamo Municipality inclusive, gender issues continue to be of great concern both at household level as well as at institutional level. Across the sectors and institutions, gender gap has continued to exist and main gaps between the girl child and women can be sighted in unequal participation in development programs, low levels of literacy, disparities in employment, high dropout rates, limited ownership, access and control of resources especially land. This implies that the women are exploited and lag behind in development as compared to the men.

Gender inequality is another development constraint especially in ownership and access to productive assets such as land and sexual reproductive health services. Women are vulnerable to poverty due to limited economic opportunities, low status, lack of ownership and access to productive assets, limited participation in decision-making and heavy burden of looking after families.

Discrimination against women and girls, gender based violence and harmful practices severely affect women and girls sexual reproductive rights. Women's low socio-cultural status, power imbalance between men and women being promoted by socio-cultural norms and practices undermine and violate women's human rights and limits their access to sexual reproductive health services and information. For instance, only thirty-eight percent of women participate in decision making on their own health care, major household purchases and visits to their families, while sixty eight percent of women cited lack of money as a hindrance to access health care services (Ntungamo Municipality 5 Year Development Plan [2020/2021 – 2024/2025]).

4.11. REVIEW OF NTUNGAMO MUNICIPALITY STRUCTURE PLAN (208 – 2018)

Ntungamo Municipality Structure Plan (2008 – 2018) was prepared with the sole aim of guiding land use in the municipality to the year 2018, by integrating the existing social and economic development activities, together with investments in the support infrastructure facilities and services, with environmental considerations, to achieve sustainable development.

Thus, the Structure Plan was in existence for 10 years. The levels of rapid urbanization in the municipality influenced development as a result, the authority has to cope with the fast growing rate of urban development. According to the National Housing and Population Census Report 2014, the municipality population increased from 15,322 persons in 2002 to 21,005 persons in 2014. This gives an average annual growth of 37%. This implies that the municipality's population increased by 6,131 persons between 2002 and 2014. At this growth rate, the municipality population was projected to increase to 23,643 persons by 2018 at an annual growth rate of 3.3 percent per annum.

The trends reflect an increase in the municipality's population. This was supported by the United Nations Report 2012, which reported that more than half of the world population will be living in urban areas by the year 2050. This therefore, calls for strategic urban planning approaches to increase the attractiveness of Ntungamo, cater for the fast urbanizing areas and enhance sustainable development in the municipality.

4.11.1. Analysis of the Structure Plan 2008 – 2018

The review of the performance of Ntungamo Structure Plan (2008 – 2018) was undertaken according to key sectors in which the municipality plan (See Map 7) was prepared.

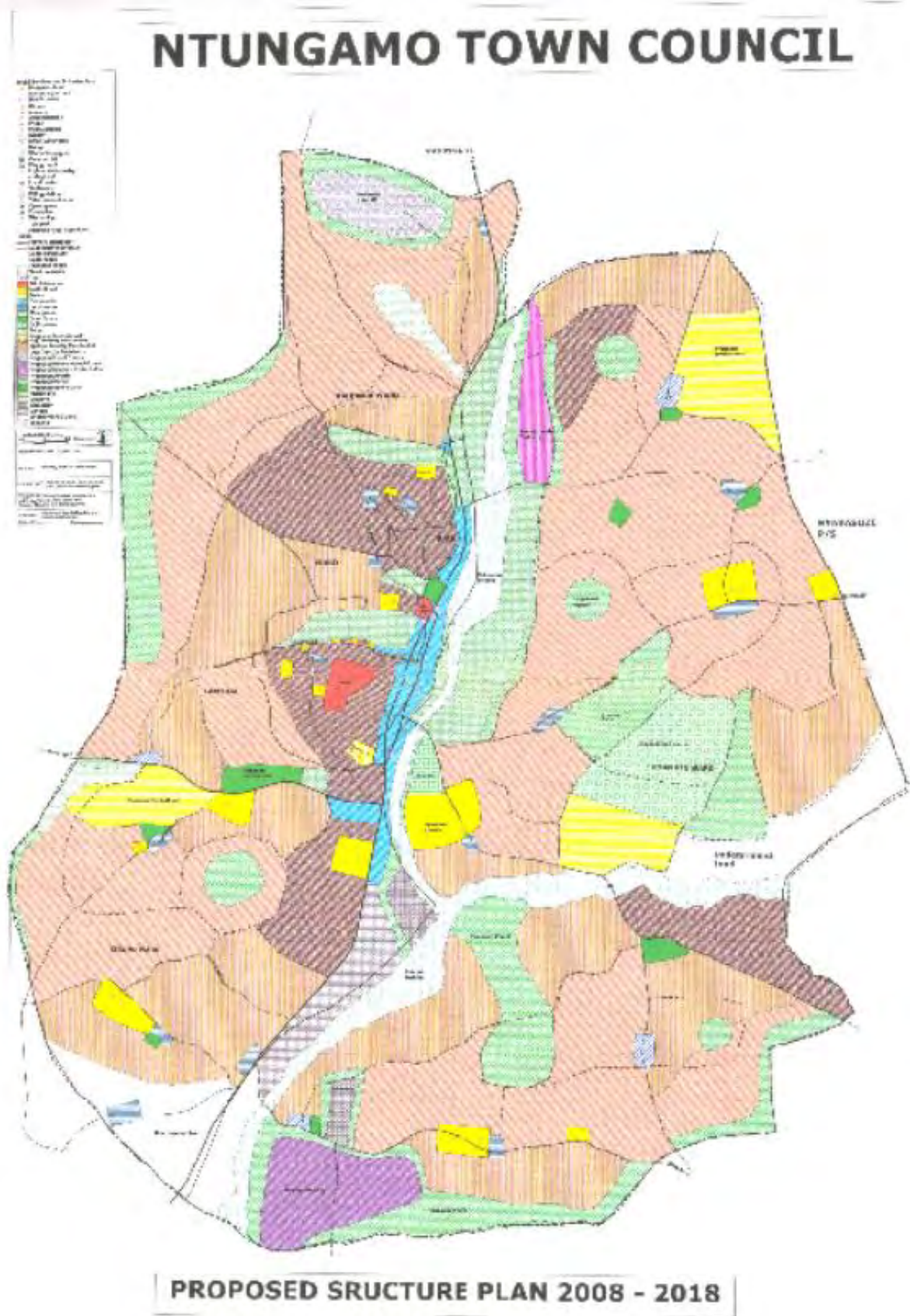
Findings indicate that the municipality authorities concentrated on the commercial zones that were located in the CBD as reflected by the detailed survey and the image. Thus, only six percent of the entire Structure Plan (2008 – 2018) was implemented (See Maps 8, 9, 10 and 11). Other land use proposals were not implemented according to the Structure Plan proposals.

4.11.2. Ntungamo Municipality Structure Plan (2008 – 2018) Implementation Status

The level of implementation of the structure plan provides the basis for either planning for new development proposals or maintaining the existing ones. This section provides an over view of implementation process of the proposals while making a comparison with the existing land use to inform the planning process and the level of implementation of the structure plan.

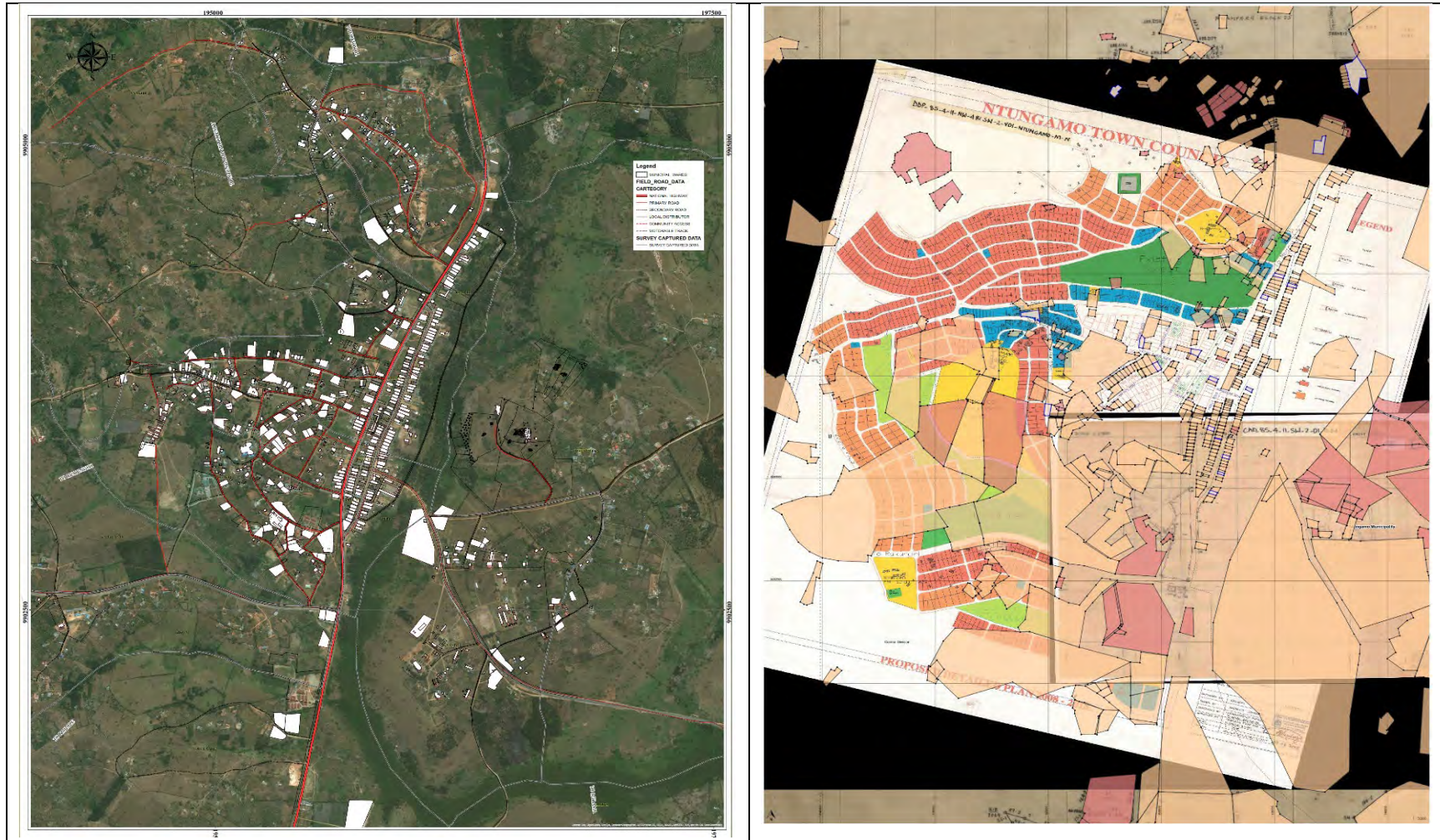
In the final analysis of Ntungamo Municipality Structure Plan (2008 – 2018), revealed that the plan implementation achieved **10 percent success**. A comparison between Ntungamo Municipality Structure Plan (2008 – 2018) and Ntungamo Municipality existing land use by 2018 as portrayed by Fig. 28. The variations in land use are seen in the various sections of the municipality.

Map 7: Ntungamo Municipality Structure Plan (2008 – 2018)



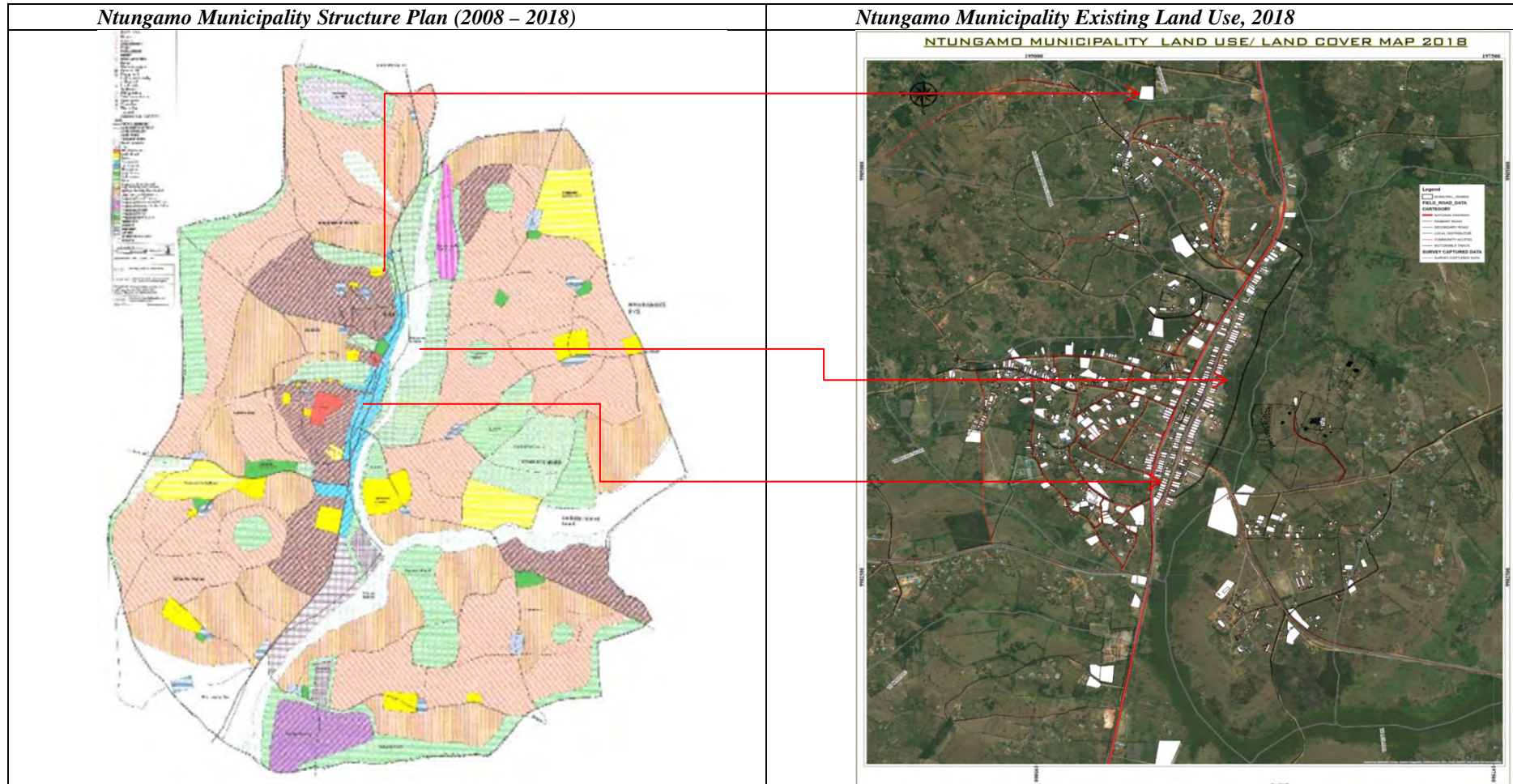
Source: Ntungamo Municipal Council, Physical Planning office, Aug 2017

Map 8: Status of Implementation of Ntungamo Municipality Structure Plan (2008 – 2018)

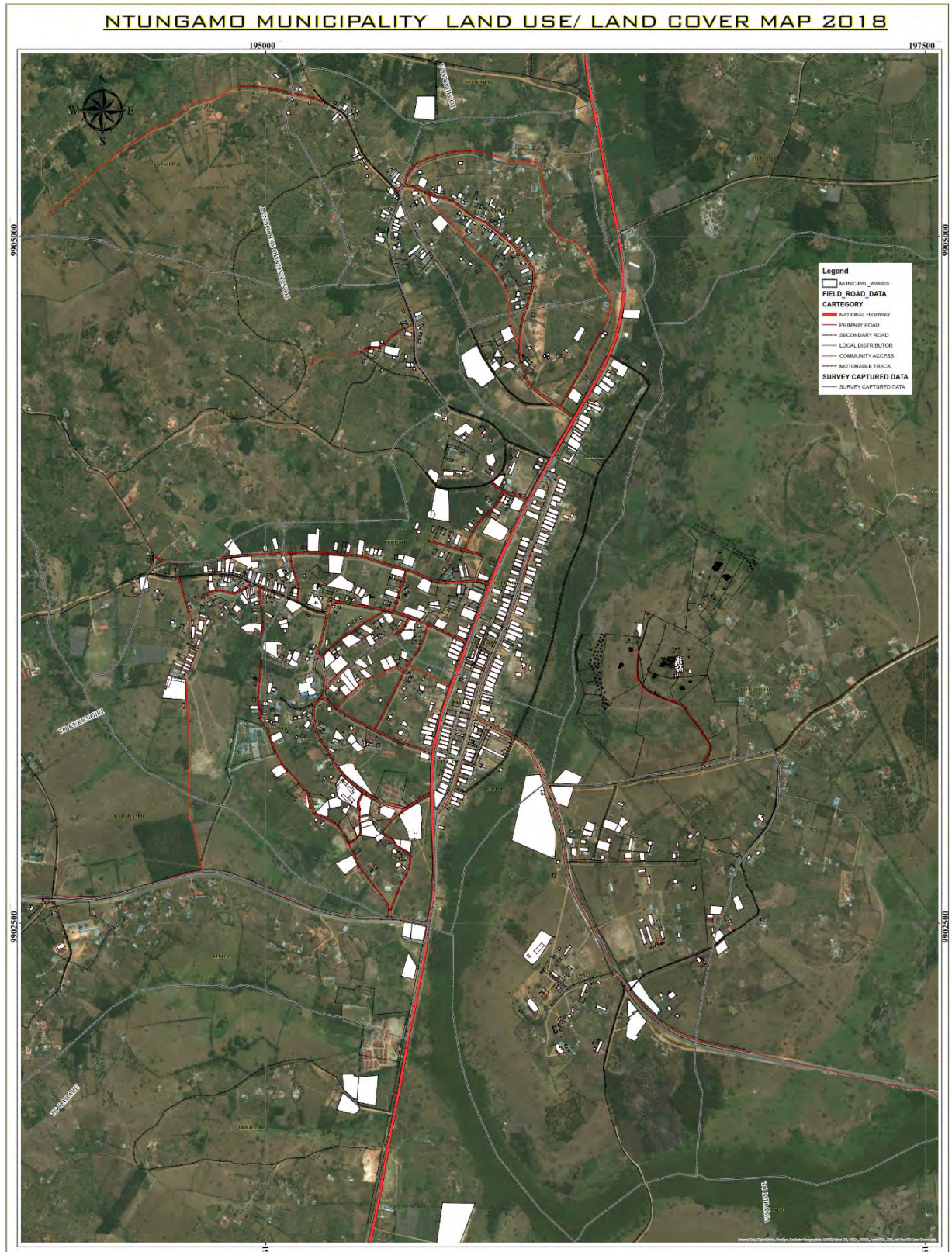


Source: M/S Realtek Consult, Jan 2019

Map 9: Comparison between Municipality Structure Plan (2008 – 2018) and Existing Land Use, 2018

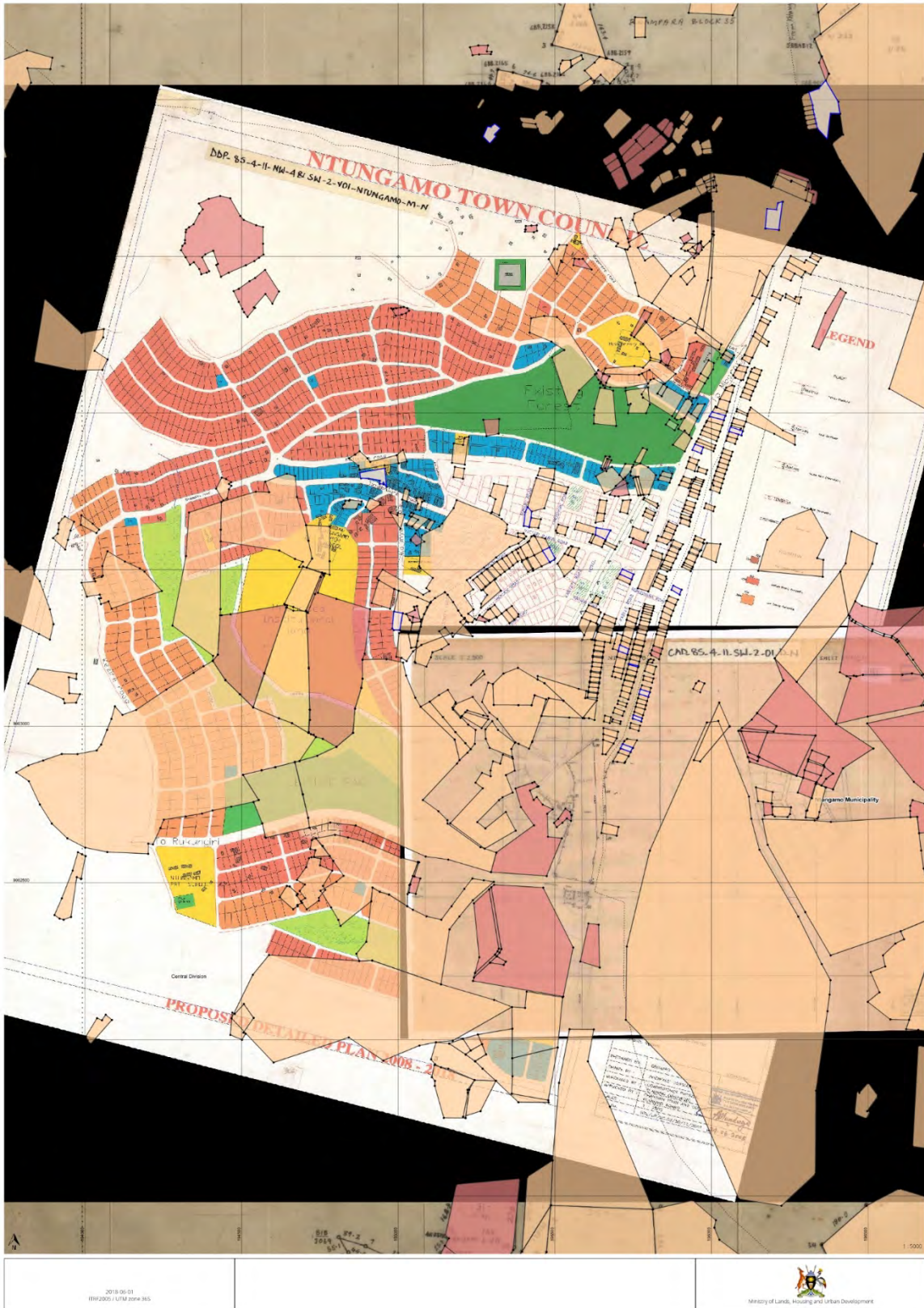


Map 10: Surveyed Plots within Ntungamo Municipality Structure Plan (2008 – 2018)



Source: M/S Realtek Consult, Jan 2019

Map 11: Surveyed Plots within Ntungamo Municipality Detailed Plan Layout (2008 – 2013)



Overlays of Cadastral and Detailed Plan (2008 – 2013) - Illustrates the extent of plan implementation to-date

Source: M/S Realtek Consult, Jan 2019

4.12. EXISTING LAND USE PATTERN

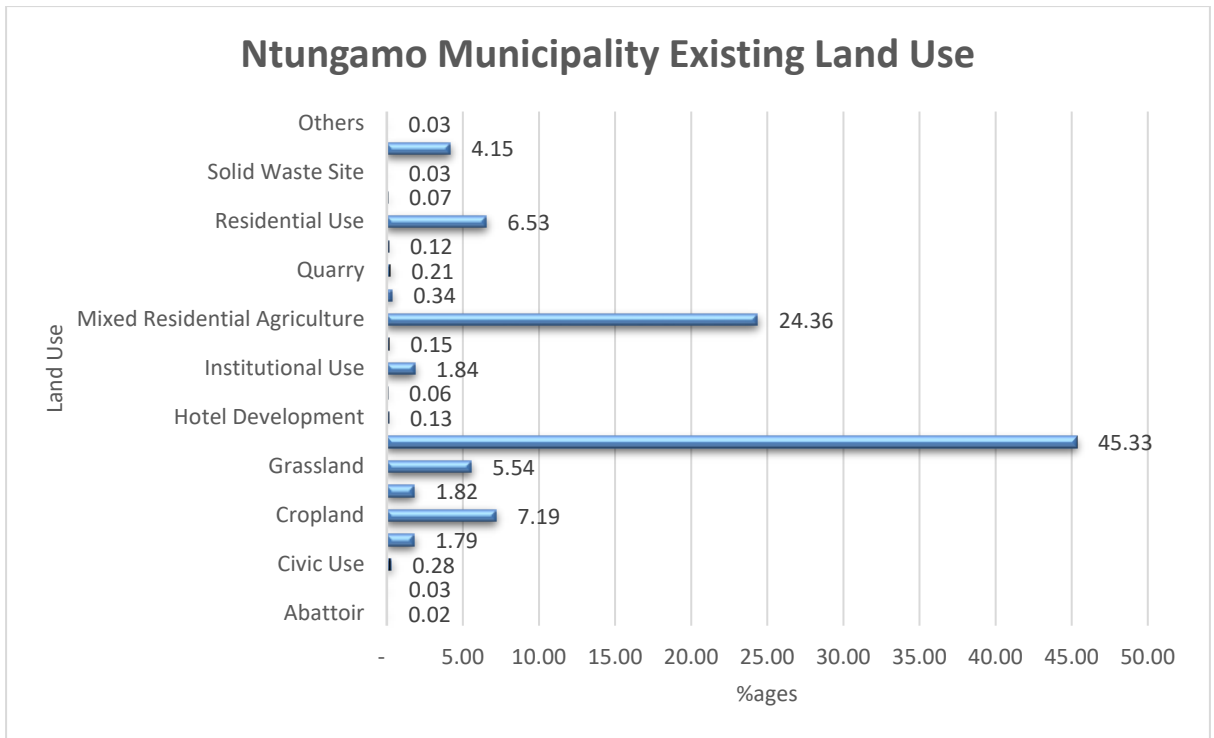
The following sections provide an analysis of the existing land use pattern within Ntungamo Municipality. Findings shall provide a guide to the proposed land use zoning for the municipality within the next 10 years. Survey findings revealed several land use types in Ntungamo categorised as residential, commercial, industrial, and civic/administration, social services, agriculture, environment, recreation and infrastructure. They are summarised in table 27, Fig. 29 and Map 12.

Table 27: Existing land use in Ntungamo, 2019

Land Use	Area (Acres)	%ages
<i>Graze land</i>	5,814.00	45.33
<i>Mixed Residential Agriculture</i>	3,124.13	24.36
<i>Cropland</i>	922.08	7.19
<i>Residential Use</i>	837.80	6.53
<i>Grassland</i>	709.95	5.54
<i>Wetlands</i>	532.65	4.15
<i>Institutional Use</i>	235.98	1.84
<i>Forest And Woodland</i>	233.19	1.82
<i>Commercial Use</i>	229.12	1.79
<i>Open Space</i>	43.59	0.34
<i>Civic Use</i>	35.45	0.28
<i>Quarry</i>	27.08	0.21
<i>Market</i>	18.99	0.15
<i>Hotel Development</i>	16.04	0.13
<i>Recreational Use</i>	15.97	0.12
<i>Rock Outcrop</i>	9.28	0.07
<i>Industrial Use</i>	8.33	0.06
<i>Solid Waste Site</i>	3.90	0.03
<i>Car Park</i>	3.69	0.03
<i>Others</i>	3.23	0.03
<i>Abattoir</i>	1.97	0.02
Total	12,826.42	100

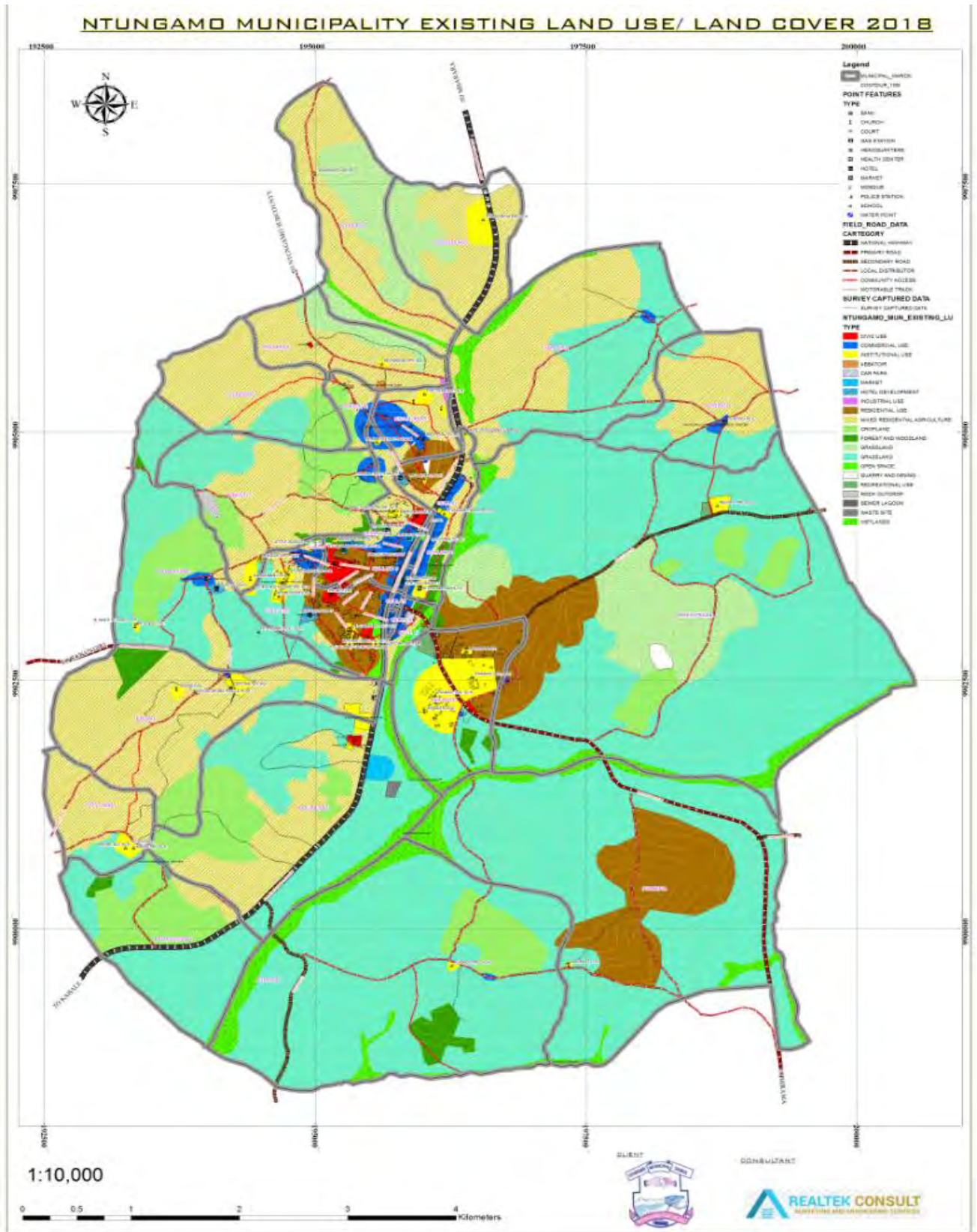
Source: Field Data, June 2018

Fig. 29: Existing land use in Ntungamo, 2019



Source: Field Data, June 2018

Map 12: Ntungamo Municipality Existing Land Use, 2018



Source: M/s Realtek Consult Ltd, June 2018

The various land use activities identified in Ntungamo Municipality are discussed below:

4.12.1 Commercial developments

The various economic activities identified were mainly concentrated in the central business district (CBD) of the town. They included wholesale and retail trade in general merchandise; medical facilities such as health centres, pharmacies, drug shops, and clinics; hotels and restaurants, auto repair workshops and garages; bars, and nightclubs, metal workshops and carpentry workshops and transport activities including boda-boda, passenger service vehicles such as buses, taxis and special hire cars and goods vehicles (See Fig 30). They are mainly located along arterial transport routes in a linear built up environment while others are located within residential neighbourhoods.

Supermarkets, hardware shops, textile shops, general stationary and secretarial bureaus, salons, and shops dealing in general merchandise also exist. Produce markets and major shopping centres are all part of the commercial zones.

Fig. 30: Some of the Commercial Developments



Ntungamo Municipality Central Business District along Mbarara – Kabale Road



Commercial developments along Jaka-Jex Road



Business developments in Ahakatogo Centre

Source: Field Data, June 2018

Banking institutions provide financial services to the residents as well as providing saving and credit services. Banking service operators include Stanbic Bank, Centenary Bank, Opportunity Bank, and Post Bank – a government financial entity.

Other activities include hotel developments and lodging facilities, sand mining and stone quarrying, bricklaying, burning and selling, selling of forest products such as firewood, and construction poles. Fuel filling station such as Total, Shell, Mogas, Kobil, Petro, and Hass fuel station (See Fig 31); tailoring, saloons, secretarial bureaus, mobile money transactions, video halls, and clubs, water vending and selling of agro-inputs were also identified.

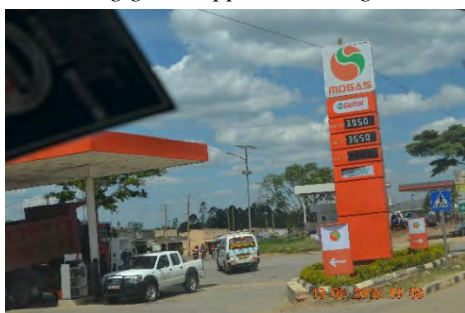
Fig. 31: Other economic activities



Harvesting grasshoppers in Ntungamo



Stone quarrying, Ntungamo



Mogas Fuel station

Source: Field Data, June 2018

Several growth centres in the outskirts of the municipality were identified such as Ahakatogo centre with retail shops that aim at bridging the gap from the town centre. They provide low order goods required within the neighbourhood on daily basis such as soap, paraffin, salt and other household items, thus bringing services closer to people. Commercial developments cover 92.72 Acres which is equivalent to 1.79 percent of the planning area.

4.12.2 Human Settlement Zones

Residential neighbourhoods are spread across the municipality. Some surround the CBD and industrial centres to provide accommodation for people who work in the commercial and industrial zones while others are spread out in the rural parts of the municipality mixed with agricultural farmlands. Some of the neighbourhoods are planned while others are not planned and lack services such as standardized access roads, which has hampered the provision and distribution of piped water facilities and electricity difficult. In the peri-urban areas, settlement are mixed with commercial developments and agricultural areas (see Fig 32). Residential neighbourhoods cover 339.05 Acres which is equivalent to 6.53 Percent of the planning area.

Fig. 32: Existing developments in the municipality



Ntungamo Municipality as seen from Kyamate Hill

Source: Field Data, June 2018

4.12.3 Mixed use developments

Mixed-use developments identified in the municipality include mixed commercial - residential developments and mixed agriculture - residential areas. Mixed commercial - residential developments are located in urban growth centres and local commercial centres. The arrangement follows access roads whereby the frontage of the developments provides facilities for commercial use while the rear serves as residential quarters of the business operator or separate tenant. These serve as neighbourhood centres for the rural part of the municipality providing low order goods required on daily basis such as soap, paraffin, salt and other household items required by residents. These growth centres need guidance by preparing Local PDPs and Action Area Plans to guide service provision and development control. This will bring services closer to the urbanites.

The mixed residential - agricultural zones were common in the peri - urban areas of the municipality such as Rukindo, Rwencwera, Mpaama, Kabahambi, and Nyakasa. Mixed-use developments occupy 3,124.13 Acres (24.36 percent) of the planning area.

4.12.4 Industrial developments and activities

The Municipality is blessed with several industrial establishments dealing in agro-processing, welding and metal fabrications comprising of small-scale factories for artisans engaged in fabrication, woodworks, carpentry and joinery workshops dealing in furniture, and other wooden products, handcrafts and brick making. Others include small-scale factories dealing in grain milling, cassava milling into flour, groundnuts grinding mills, and processing of animal feeds.

Light industrial activities included fuel filling stations, coffee processing, milling centres for processing cereals and cassava into flour, located along Mbarara highway in eastern ward (See Fig. 33), and auto repair workshops/garages, which are still operating on a small scale within the commercial zones.

Other industrial activities include production of concrete construction products, extraction factories such as brick laying and burning using kilns mainly carried out in swampy zones and around wetlands in the municipality, sand mining, stone quarries. These have greatly degraded the environment thus; they should be regulated to sustainably coexist with the environment.

They face several challenges including inadequate capital, lack of entrepreneurial skills, unstable power supply and lack of a gazetted industrial park, thus still operate in residential and commercial zones within the town. This puts the lives of urbanites in danger due to air, noise, and environmental pollution. This implies that Ntungamo Municipality PDP should create an industrial park where such activities shall relocate to in future. Existing industrial developments occupy 3.37 Acres (0.06 percent) of the municipality.

Fig. 33: Industrial developments



Mpororo Coffee processing, Western Ward



Factories along Mbarara – Kabale road



Maize milling machines, Industrial Area



Auto Garage along Mirama hill road



Welding and Carpentry Workshop



Stone Quarrying in Kabahambi

Source: Field Data, June 2018

4.12.5. Agriculture

Agriculture refers to activities such as crop, livestock, poultry, and fish farming. It is one of the key economic activities practiced in the municipality. It is a major source of income and livelihood for town residents. Majority of farmers own small-scale agricultural farms for both perennial and annual crops, rear livestock, poultry and fish farming mainly for home consumption mostly at household level. There are households that own large chunks of land under cattle rearing especially in Rukindo, Rwencwera, Mpaama, Kabingo and Kabahambi. Field findings reveal that agriculture though practiced at a subsistence level was the most dominant activity and even in the classified residential zones there are pockets of backyard farming and small gardens. Table 28 provide an insight on the amount of land allocated to agriculture by residents.

The most cultivated cash crops include coffee and Banana (*Matooke*) while food crops include cassava, groundnuts, beans, sweet and Irish potatoes, maize, vegetables, sorghum, millet,

onions, and bananas on a small scale. Fruits grown include avocados, mangoes, oranges, and lemon (Fig. 34).

Animal rearing is another economic activity practiced by residents. Animals reared include cattle, goats, sheep, and pigs while poultry rearing includes chicken, ducks, and turkeys. This sector too, is faced with a challenge of low productivity partly due to poor breeds and poor farming methods. Agricultural areas occupy 2,725.99 Acres (52.52 percent) of the municipality.

Fig. 34: Agriculture practices



Cattle rearing in Ntungamo



Banana plantation, East Ward

Source: Field Data, June 2018

Table 28: Amount of land allocated to agricultural use

<i>Land under Agriculture</i>	<i>Freq.</i>	<i>%age</i>
<i>More than 50 percent</i>	<i>109</i>	<i>48.7</i>
<i>50 percent</i>	<i>33</i>	<i>14.7</i>
<i>25 percent</i>	<i>50</i>	<i>22.3</i>
<i>Less than 25 percent</i>	<i>23</i>	<i>10.2</i>
<i>Don't Know</i>	<i>9</i>	<i>4.1</i>
<i>Total</i>	<i>223</i>	<i>100</i>

Source: Field Data, June 2018

4.12.6. Forest areas

All the natural forest reserves in the municipality were depleted. Only planted forests exist in the municipality categorised under Pine and Eucalyptus plantations covering 94.37 Acres (1.82 percent) of the planning area. Analysis revealed that forest cover within the municipality boundary is inadequate. Thus, afforestation and re-afforestation programmes are essential to increase tree cover, and effectively modify the municipality’s climate. Thus, residents should be encouraged to participate in afforestation and re-afforestation programmes. The implication to planning is that the Municipality PDP should reserve land for such activities in close liaison with the municipality stakeholders. Like it is practiced in the developed countries under the campaign for greening cities to help regulate global warming and climatic change, the municipality leadership should borrow a leaf and start greening their town as well. This will protect the ecologically sensitive areas from further encroachment and depletion.

4.12.7. Swamp/Wetlands

Wetlands are important in the development of the municipality. They support vegetable growing, provide water for irrigation farming and animals rearing, provide habitat for flora and

fauna, facilitate climate modification, provide potential for fishing and fish farming, and support artisan innovations by providing materials for handicrafts and artefacts (See Fig. 35). Wetlands also support the construction industry through providing building materials such as clay, sand, and papyrus reeds. They also hold enormous amounts of fresh water for domestic and industrial use and provide buffer zones against pollution and siltation. Wetland/swampy areas cover 215.56 Acres (4.15 percent) of the municipality.

Despite their importance, they continue to disappear at alarming rates, due to over grazing, unsustainable harvesting, and utilisation of natural resources (e.g. brick making, papyrus reeds, etc.), bush burning, and low levels of environmental awareness amongst the community members.

Thus, sustainable management and use of wetlands is paramount for the sustainable development of the municipality. The implication to planning is that, the proposed PDP should provide buffer zones along all environmental sensitive areas to stop encroachment, restoration of the already degraded areas and mitigation measures for sustainable utilisation of such resources.

Fig. 35: Swamp vegetation



Swamps in the planning area

Source: Field Data, June 2018

4.12.8. Educational Services

Ntungamo Municipal Council is committed to the promotion of education for all its citizens in partnership with Government, parents and community members. As such, the Municipality through its Education department implements Education policy of promoting quality basic education by improving access by girls and boys, equity and retention at all levels of learning. Educational institutions identified included nursery/kindergarten, primary, secondary and tertiary schools (See Fig. 36). The existing education facilities are well spaced and will serve the targeted population within the planning

period. At the time of the survey two (2 No.) privately owned -vocational training institutes, six (6) primary schools were identified.

Fig. 36: Some of the schools



Little Angels Primary school, Ntungamo

Analysis revealed that 82.2 percent of residents travel less than 5 km to access the nearest nursery/primary school while 15.6 percent travel more than 5 km to access the same services. Only 2.2 percent of respondents had no idea of the distance travelled to the nearest nursery/primary school (See table 29). The implication to planning is that the municipality PDP should provide nursery/primary schools within residential neighbourhoods to bring such services closer to people and reduce on the distance travelled by children to access the same services. This is also in recognition of the National Physical Planning Standards and Guidelines (MoLHUD, Aug 2009) which requires that a primary school is required for every 2,000 people living within a radius of 1.5 km to 2.5 km.

Analysis of the distance travelled by residents to access the nearest secondary school revealed that 73.3 percent of respondents travel less than 5 km while 22.2 percent travel more than 5 km to access the same services. Only 4.4 percent of the respondents had no idea of the distance to the nearest secondary school (See table 29). According to the National Physical Planning Standards and Guidelines (MoLHUD, Aug 2009), a secondary school is required for every 50,000 people. This implies that based on the municipality’s population of 18,854 people (UBoS 2016), and the projected population of 34,507 people, the available secondary schools are sufficient for the planning period.

Further analysis of the distance travelled to the nearest tertiary institution, revealed that 55.6 percent of respondents travel a distance of less than 5 km to the nearest tertiary institution, 35.6 percent travel more than 5 km to access the same services while 8.9 percent don’t know the distance from their homesteads to the nearest facility (See table 29). Based on the projected population of 34,507 people, the existing tertiary institutions are sufficient the municipality within the planning period since tertiary institutions are required for every 50,000 people (MoLHUD, Aug 2009).

Table 29: Distance to the nearest school

<i>Type of facility</i>	<i>Nursery /primary school</i>		<i>Secondary school</i>		<i>Tertiary institute</i>	
	<i>Freq.</i>	<i>%age</i>	<i>Freq.</i>	<i>%age</i>	<i>Freq.</i>	<i>%age</i>
<i>Less than 5 km</i>	183	82.2	164	73.3	124	55.6
<i>More than 5 km</i>	35	15.6	50	22.2	79	35.6
<i>Don’t know</i>	5	2.2	10	4.4	20	8.9
Total	223	100	45	100	45	100

Source: Field Data, June 2018

4.12.9. Health Facilities

The health infrastructure in the municipality has improved adequately with a number of privately owned clinics. The Municipality has two health facilities owned and run by the Government of Uganda through the Ministry of Health. They include Ruhoko Health Centre II located in Kyamate and Ntungamo Health Centre III located in Central ward (See Fig. 37). They offer services ranging from HIV/AIDS testing and counselling, antenatal, and postnatal care, Prevention of Mother to Child Transmission (PMCT) services to Ntungamo residents, and sex education to the youth including distribution of condoms.

Their efforts in delivering health services to the residents are supplemented by private clinics/medical centres and drug shops located within the commercial areas of the municipality.

Fig. 37: Ntungamo HC III Facility



Source: Field Data, June 2018

Findings on the type of health facilities used to access healthcare services revealed that 46.7 percent of respondents rely on government owned health facilities for their healthcare services, while 42.2 percent rely on private clinics for the same services. Only 11.1 percent rely on other healthcare facilities such as drug shops, pharmacies, and traditional birth attendants. This was mainly due to the distances travelled to access government owned health facilities. For instance, 68.9 percent of respondents travel less than 5 km to reach the nearest health facility while 31.1 percent of respondents travel more than 5 km to access the same services (See table 30).

Table 30: Distance to the nearest health facility

<i>Distance travelled</i>	<i>Freq.</i>	<i>%age</i>
<i>Less than 5 km</i>	<i>154</i>	<i>68.9</i>
<i>More than 5 km</i>	<i>55</i>	<i>24.4</i>
<i>Don't know</i>	<i>15</i>	<i>6.7</i>
Total	223	100

Source: Field Data, June 2018

According to the National Physical Planning Standards and Guidelines

(MoLHUD, Aug 2009), a health centre is required for every 10,000 people while an under five clinic is required for every 2,000 people. Thus, based on the projected population of 34,507 people, more health centres are required for the planning period to provide essential healthcare services. The proposed Ntungamo Municipality PDP (2019 – 2029) should reserve more land for the provision of such health facilities within the planning period.

4.12.10. Places of Worship/Religious Institutions

Religion is defined as a system of thought, feeling, and action that is shared by a group of individuals (UBoS, 2014). Uganda is characterized by a diversity of religious beliefs and practices. According to the survey, Catholics constituted the largest religious

denomination with eighty nine percent of the sampled households followed by Anglicans represented by four percent. Other religious include the Seventh Day Adventists and those who still subscribe to the African Tradition Society as indicated in table 31.

Table 31: Religious Affiliations

<i>Religion</i>	<i>Freq.</i>	<i>%age</i>
<i>Catholic</i>	<i>114</i>	<i>51.3</i>
<i>Protestants/ Anglicans</i>	<i>86</i>	<i>38.5</i>
<i>Pentecostal Assemblies of God</i>	<i>3</i>	<i>1.3</i>
<i>Born Again Christians</i>	<i>11</i>	<i>5.1</i>
<i>Not willing to disclose</i>	<i>9</i>	<i>3.8</i>
Total	78	100

Source: Field Data, June 2018

The existing religious institutions included the Anglican and Catholic churches, born again churches and mosques that are widely distributed within the confines of the municipality (See Fig. 38). Analysis revealed that they are sufficient for the planning period.

Fig. 38: Religious Institutions



Mosque in Central Ward

South Ankole Diocese, Kyamate

Rugarama Catholic Church

Source: Field Data, June 2018

However, lack of byelaws to guide the establishment and to regulate operations of religious facilities has resulted into mushrooming of religious facilities in residential areas. This has created noise pollution from such religious establishments especially at night during overnight services, lunch hour prayers and early morning services, which has robbed residents of their peace of mind, sleep, calmness, and quietness within these residential neighbourhoods.

4.12.11. Market Centers

Ntungamo Municipality has one main market located in central ward along Mbarara – Kabale highway that provides easy access to public transport. The market operates on a weekly basis. However, the market is an open-air market where market vendors display their merchandise on bare ground, thus no proper structures for the market to operate from (See Fig. 39). Further analysis revealed lack of car park and service/delivery yard, an enclosure in form of a wall fence for safety of the vendors, and inadequate stances of public toilets required by the vendors. This implies that the proposed PDP should plan for space to construct modern markets within the planning period. The proposed market structures should lock-up shops for butchers, fishmongers, etc., and stalls for the sale of fresh fruit and vegetables, facilities for craftsmen, fuel-wood yard, public car par and service/delivery yard in addition to public toilets must be provided.

Fig. 39: Weekly Market Day along Mbarara - Kabale highway



Weekly Market along Kabale highway

Source: Field Data, June 2018

Other market centres in the municipality include the Kabagyenda roadside market (see Fig. 40) and the daily Matooke market along Ntungamo - Mbarara highway.

Fig. 40: Kabagyenda roadside market along Ntungamo - Kabale highway



Kabagyenda roadside market

Source: Field Data, June 2018

4.12.12. Recreation Facilities

Ntungamo Municipality boasts of good sports facilities such as Kyamate Football ground in the midst of the town along Mirama hill road (See Fig. 41). The playground serves as a public square hosting several community gatherings in the municipality. Other sports facilities include playground, stadium, leisure gardens and hotels, Clubs/ Disco/ Video Halls, Play lots, open spaces basketball courts, lawn tennis courts and the Volleyball Courts (See table 32). Some of these facilities exist within educational institutions and are not accessed by the public. The implication to planning is that such facilities should be preserved and enhanced within the municipality PDP to ensure that residents get better facilities to relax their bodies and minds for better output.

Fig. 41: Recreational Facilities



Kyamate Playground along Mirama Hill Road, Western Ward

Source: Field Data, June 2018

Table 32: Recreation/Leisure facilities

<i>Leisure facility</i>	<i>Freq.</i>	<i>%age</i>
<i>Play Ground</i>	<i>168</i>	<i>75.6</i>
<i>Stadium</i>	<i>25</i>	<i>11.1</i>
<i>Club/ Video hall</i>	<i>5</i>	<i>2.2</i>
<i>Leisure Gardens & hotels</i>	<i>5</i>	<i>2.2</i>
<i>Others</i>	<i>20</i>	<i>8.9</i>
Total	223	100

Source: Field Data, June 2018

The study further investigated the minimum distances that residents walk to access the available recreation facilities. Findings as presented in table 33 revealed that 24.4 percent of respondents walk a distance of less than 5 km to access the available recreation facilities within Ntungamo Municipality while 9.0 percent walk more than 5 km to such facilities. This further implies that more facilities are required to enable all residents to enjoy the benefits of such facilities especially in neighbourhoods where they are lacking.

Table 33: Minimum distance to the nearest recreation facility

<i>Leisure facility</i>	<i>< 5 km (%)</i>	<i>> 5 km (%)</i>	<i>Not sure (%)</i>
<i>Play Ground</i>	<i>24.4</i>	<i>9.0</i>	<i>38.5</i>
<i>Stadium</i>	<i>1.3</i>	<i>2.6</i>	<i>-</i>
<i>Leisure Gardens & hotels</i>	<i>1.3</i>	<i>2.6</i>	<i>1.3</i>
<i>Club/Disco/Video hall</i>	<i>1.3</i>	<i>1.3</i>	<i>14.1</i>
<i>Other facilities</i>	<i>1.3</i>	<i>2.6</i>	<i>-</i>

Source: Field Data, June 2018

4.12.13. Civic facilities

The civic land use developments in the municipality includes the Uganda Police Headquarters, the Uganda Prisons, Ntungamo District Headquarters, the Municipal Council office, National Water and Sewerage Corporation offices, community centres and the Magistrate Court among others (See Fig. 42).

Fig. 42: Civic facilities in the municipality



Community Centre at Kyamate,



Resident State Attorney offices, Ntungamo

Source: Field Data, June 2018

4.1.3. ANALYSIS OF EXISTING TRANSPORT SYSTEMS

Ntungamo municipality’s location at the node of highways to Rwanda through Mirama Hill and Katuna in Kabale district, DRC through Kyanika and Bunagana border posts in Kisoro district and Ishaha through Kanungu district makes the town a major transport hub in Uganda for both passengers, services and goods coming in and going out of Uganda. Both motorized and non-motorized transport modes exist in the municipality. The most common forms of transport are walking, bicycles, motorcycles commonly known as *boda-boda*, commercial vehicles (trucks, pick-ups, omnibuses commonly known as commuter *taxis* and special hire taxis), institutional buses, and private vehicles. On average, a passenger will be required to pay UGX 1,000 for taxi, UGX 3,000 for *boda-boda* and UGX 800 for bicycle from any given location to the town center.

Commercial goods vehicles are used as passenger vehicles by market vendors especially on market days. This is because passengers like to travel with their merchandise to and from these market places – a situation that passenger service vehicles cannot handle. Consequently, the fares are higher than otherwise would be. The municipality has a designated lorry park along Mirama Hill Road, Taxi Park along Mirama Hill road, while buses park along Old Kabale road.

4.13.1. Road Network

The road network is well distributed in the municipality, much as there is need to open up more roads to improve accessibility. The road network plays an important role in advancement of national policies regarding economic development and poverty eradication through reduced transport costs. The road section designs and constructs municipal roads, undertakes rehabilitation, periodic and routine maintenance of roads.

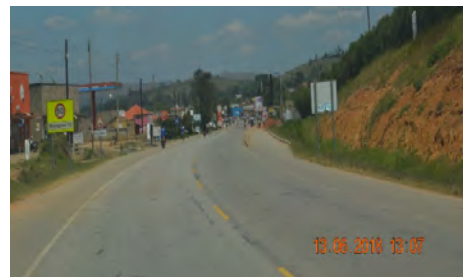
The Ministry of Works and Transport in collaboration with UNRA are responsible for the maintenance of trunk roads; the municipality is in charge of maintaining feeder roads while Divisions are responsible for maintaining community access roads (See Map 13). The main funder of road maintenance in the municipality is the Uganda Road Fund. Routine maintenance involving drainage works, culvert cleaning, grass cutting, debris removal, and pothole patching has regularly been carried out. With the support from the Uganda Support to Municipal Infrastructure Development (USMID) project major roads works were undertaken. Other proposed roads for upgrading, improvement, and opening up are contained in Chapter Nine of this report. The road hierarchy is categorized as primary, secondary, tertiary and access roads as follows:

Primary Road

There are three primary roads (Mbarara – Kabale highway, Mbarara – Mirama Hill highway and Ntungamo – Rukungiri highway), which traverses Ntungamo town and provide linkages to major towns in Western Uganda such as Kabale, Rukungiri, Kisoro, and Kanungu. The road provides linkages to the Democratic Republic of Congo and Rwanda.

These roads are categorised as national roads, under the management of Uganda National Roads Authority (UNRA) and the Ministry of Works and Transport. They have gravel surfaces (See Fig. 43).

Fig. 43: Primary Road



Mbarara - Kabale highway

Source: Field Data, June 2018

Secondary Roads

The existing secondary roads connect the town centre to other villages and provide links to the primary roads. These roads have loose earth surfaces and meander about following the nature of the terrain. They are characterized by dust, potholes and lack drainage channels. However, with routine re-graveling and grading, they are quite motorable even during the wet season. The Municipality has embarked on gravelling and paving of these roads (See Fig. 44).

Fig. 44: Secondary roads



Road at Municipal boundary East Ward



Road near Eastern Ward Offices, under construction

Source: Field Data, June 2018

Tertiary Roads [Access Road]

The existing tertiary roads in the municipality also have loose earth surfaces, lack regular maintenance and drainage channels hence characterised by potholes. They need regular maintenance by applying murrum, unclogging of drainage channels and constructing stone-lined drainage channels to improve access to most of the rural hinterland (See Fig. 45).

Fig. 45: Access roads in Ntungamo Municipality



Access road in Nyakasa, East Ward



Access road to Ahakatogo centre

Source: Field Data, June 2018

Over all, the road network within the municipality is good with good connectivity, which makes areas accessible. The municipality has played a key role in labelling most roads, which eases orientation within the town. However, there are a couple of dangerous junctions within the municipality, which affect sight distance especially with high traffic volumes of bicycles, boda-bodas and vehicles. In addition, some of the road name posters have faded and should be replaced urgently.

4.13.2. Parking Facilities

The municipality has gazetted Taxi Park (See Fig. 46) along Mirama Hills Road. Buses, Lorries and other goods vehicles park; offload and load passengers and their merchandise along municipality roads. For instance, buses load and offload passengers and luggage at the junction of Old Kabale road and Mirama Hills Road while Lorries and goods vehicles park along Old Kabale road and Mirama Hills Road. This is not a good practise and negatively affects traffic flow at this junction.

Fig. 46: Parking facilities



Buses offloading at Kabale road and Mirama Hills Road junction



Ntungamo taxi park



Lorries and Goods vehicles parked at the junction



Source: Field Data, June 2018

4.13.3. The Existing Transport Modes

The identified modes of transport in Ntungamo Municipality include road transport comprised of taxis (Omnibus/matatus), motorcycles and bicycles ('boda-bodas'), walking (pedestrians), buses and motor vehicles (See Fig. 47).

Fig. 47: Modes of transport



PSV – Buses and Omnibus/ Taxi services, Ntungamo town

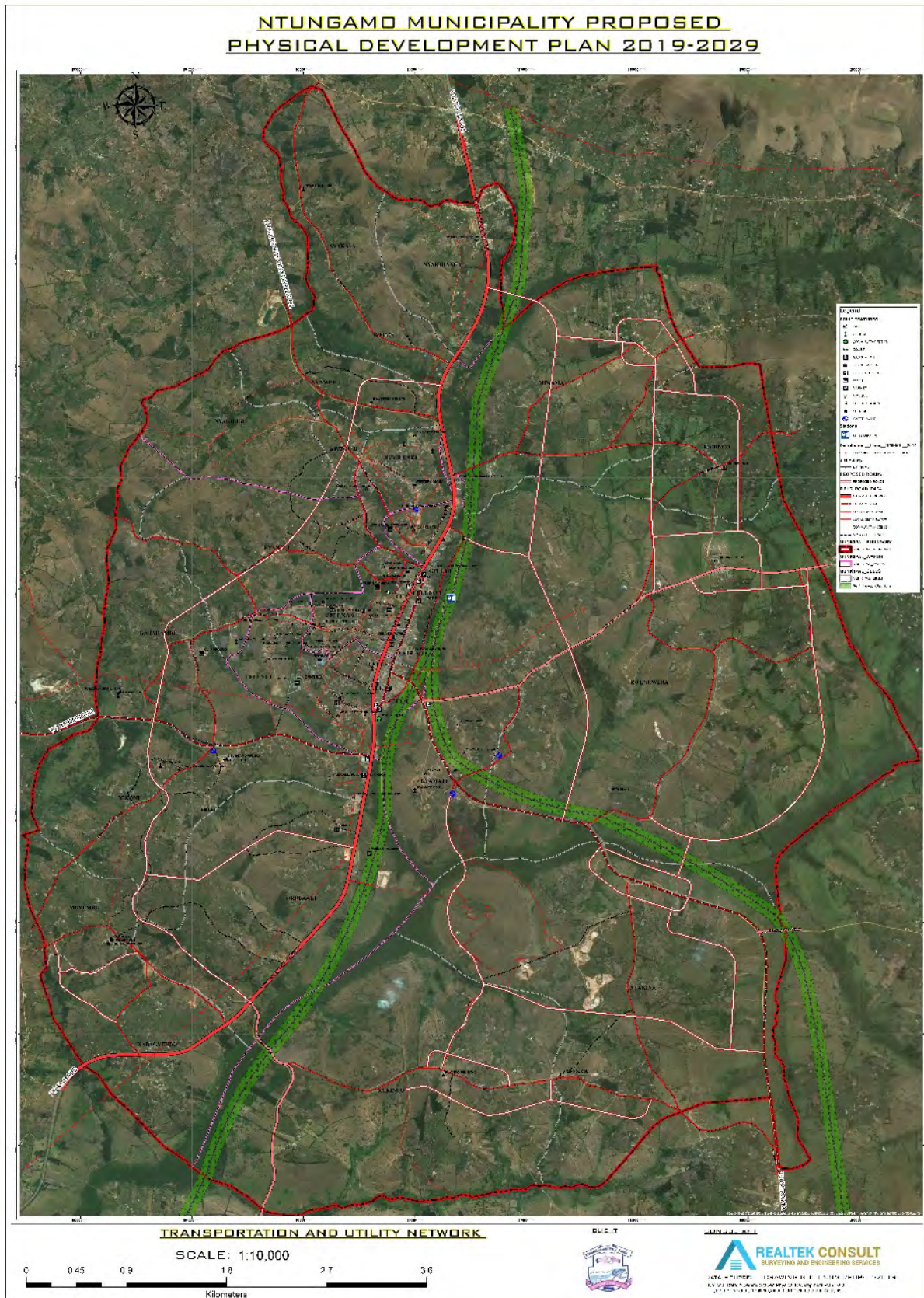


Lorries and Goods Vehicles parked along Mirama Hills Road



Boda-boda stage along Mirama Hills Road near the Taxi Park
Source: Field Data, June 2018

Map 13: Ntungamo Municipality Transportation and utilities network, 2018



Source: M/s Realtek Consult Ltd, June 2018

CHAPTER FIVE: THE PHYSICAL DEVELOPMENT PLAN AND STRATEGIC INTERVENTIONS

5.1. SWOT ANALYSIS

Strengths	Opportunities
<ul style="list-style-type: none"> ✓ Availability of infrastructure such as roads, electricity ✓ Community will to participate in development programs ✓ Proximity to Rwanda Border through Mirama Hills ✓ Availability of land for town expansion ✓ Availability of the famous extrusive Karegyeya rock. 	<ul style="list-style-type: none"> ✓ Funding of projects by the central government ✓ Funding of projects by NGOs ✓ Existence of the road fund ✓ Existence of the physical planning committee ✓ Committed and competent Technical staff. ✓ Political will to develop the area
Weaknesses	Threats
<ul style="list-style-type: none"> ✓ Poor garbage/solid waste management ✓ poverty ✓ Urban sprawl ✓ Delayed implementation. ✓ Limited local Tax 	<ul style="list-style-type: none"> ✓ Health hazards such as HIV/AIDS ✓ Unfavourable land tenure system ✓ Increasing slums ✓ Deteriorating cultural values ✓ Heavy reliance on Grants for development.

Source: M/s Realtek Consult, June 2018

5.2. VISION AND MISSION

The **Vision** of the PDP is *“to have a well-planned town with sustainable services within 10 years”*.

The **Mission** is *“to provide sustainable social Services for Social and Economic Development of Ntungamo Municipality”*.

5.3. PLANNING GOAL AND OBJECTIVES

5.3.1. Planning Goal

To achieve, an economically viable, liveable, well serviced, and accessible town that will enhance people’s livelihoods, translate and spur tourism development.

5.3.2. Planning Objectives

The main objectives of Ntungamo Municipality Physical Development Plan (2019 - 2029) were to:

- a) achieve an efficient use of existing and proposed infrastructure;
- b) guide the growth and development of Ntungamo town;
- c) create more opportunities for private sector participation in the development of Ntungamo town;
- d) guide development in an environmentally and sustainable manner by encouraging consolidated urban growth and enhancing aesthetics of Ntungamo town;
- e) propose strategies to harness and enhance the existing recreational facilities and promote Ntungamo town as the most preferred tourist destination centre by 2040; and
- f) improve tax base of NMC through improved access and provision of other economic infrastructure facilities.

5.4. OVERALL PLANNING PRINCIPLES

The preparation of this outline scheme was based on, but not limited to the following planning principles:

5.4.1. **Community Participation**

This principle required all stakeholders such as property owners, NGOs, CBOs, Religious leaders, Opinion Leaders, and the community (end-users) to actively participate in the planning process right from inception to completion. For instance, during the preparation of the municipality PDP, steps were taken to ensure that all stakeholders get involved in planning of their town. They were engaged in activities such as planning area boundary identification, generation of alternative planning schemes, household and socio-economic surveys, presentation, and discussion of the prepared planning schemes, and submission of the final draft PDP to the Client for comments and approval. Stakeholder participation ensured incorporation of their needs into NMC PDP. Some of their needs included creation of employment centres in industrial establishments, shops, restaurants, market centres, salons and several commercial enterprises in the PDP; provision of services that will improve on standards of living and increase household incomes; improved accessibility and service provision in terms of health facilities, police station, schools and recreational facilities.

5.4.2. **Equity and social choice**

This ensures that community members have equal access to public utilities and social services provided in an area. This was applicable when creating different zones with no exclusivity. In Ntungamo Municipality PDP, all stakeholders have unlimited access to the proposed facilities provided they follow the provided planning standards and guidelines.

5.4.3. **Environmental Considerations**

Environmental preservation and consideration is very essential for plan sustainability. The municipality PDP emphasised the creation of tree-lined avenues along all proposed roads, ensuring that developers adhere to the provided standards and guidelines for individual plot development, provision of green spaces and recreation facilities. For example, all commercial plots shall develop up to 75 percent of the plot and 25 percent reserved for parking and greenery. Wastes generated from such a plot must be stored in a container awaiting collection and disposal, to the approval by the local authority.

5.4.4. **Compatibility**

This advocates for the location of compatible facilities together i.e. those that are able to co-exist in harmony without disrupting the effectiveness of the other. During plan preparation, great care was taken to ensure that location of land use activities was based on the way in which the neighbouring activities related to and supplemented each other physically, economically and in functionality. Thus, mutually supportive land uses were located close to each other due to mutual benefits derived from each other.

5.4.5. **Innovativeness and adaptability**

This principle guided the introduction of new ideas within the proposed Ntungamo Municipality PDP. For example, the introduction of irrigation farming and agro-processing which were absent from the area to encourage residents to engage in such activities and widen their sources of income. This supplements Government of Uganda's efforts in poverty eradication through agriculture.

5.4.6. Factual

The Proposed Ntungamo Municipality PDP was based on facts derived from socio-economic surveys, literature reviewed such as National Housing and Population Census Report, NDP III, Statistical Abstract and Project Profiles from Ntungamo DLG. These sources provided a basis for all the proposals contained in the PDP.

5.4.7. Flexibility

This principle will be applicable during the implementation period. When new ideas emerge, the implementing authority should follow the provided guidelines for change of user by applying to the National Physical Planning Board (NPPB) and the Municipality Physical Planning Committee with justification for consideration. Thus, NMC PDP allows reviews to incorporate the necessary changes as need arises.

5.4.8. Integrative

Ntungamo Municipality PDP incorporated and respected existing cadastral surveys, individual development plans already approved. Some of the existing access roads were incorporated while others were proposed for widening. Existing approved plans were incorporated in the PDP. The proposed access roads will increase functionality of the commercial developments and improve access within town.

5.4.9. Statutory Controls

All proposed developments in Ntungamo Municipality PDP **must** comply with the provisions of the National Physical Planning Standards and Guidelines and the Physical planning Act (2010) while the proposed Hotels and guesthouses **must** conform to the standards set out in the Hotels and Tourism Act, 2008. Commercial activities should apply for a trading license from the Local Authority. Information on statutory controls is available from Ntungamo Municipality Physical Planning Committee and the offices of the Municipality Town Clerk and Physical Planner.

5.4.10. Car Parking/Service Area

All proposed developments were provided with adequate on-site parking space for traffic that is likely to be generated, including employees, customers, and visitors. When there is sufficient parking space available on – street or in nearby public off – street car parks, this can be waived in close liaison with the Municipal Physical Planning Committee. Developers are therefore, advised to seek more guidance from the respective Physical Planning Committee before embarking on development. Furthermore, based on this principle NMC PDP incorporated proposals from the 5 Year Development Plan for Ntungamo Municipality.

5.5. PLANNING NEEDS OF NTUNGAMO MUNICIPALITY

Planning needs for Ntungamo Municipality were generated from consultative meetings held between the Consultant, the Client, and the end-users (the community members) during the planning process. The following are the specific needs that stakeholders felt should be included in their plan for sustainable development of the town.

i). Bus/Lorry Park

The current situation is characterised by roadside parking, loading and off-loading of merchandise along roads. Passenger Service Vehicles such as buses, omnibuses, saloon cars,

pickups etc., and goods vehicles such as Lorries and trailers offload along the roads. This interferes with traffic flow, which endangers the lives of town residents. Thus, the urgent need to identify a suitable location for parking facilities for buses, taxis, and Lorries to improve traffic flow within the CBD.

ii). **Market Centres**

The municipality has one market in Central Ward along Mbarara – Kabale road. This is inadequate for the planning period. Thus, to decentralise development and growth to other parts of the municipality and bring employment opportunities closer to the majority urban poor, there was need to identify areas for the construction of more market centres and create local commercial centres to provide daily needs of the residents in close proximity.

iii). **Hospital**

The municipality has Health Centre III and II, which by Ministry of Health standards are inadequate for a municipality. Ministry of Health Standards recommends that municipalities should have Health Centre IIIs in each Division. Thus, the need to reserve space for HC III per division and Hospital to serve the entire municipality.

iv). **Open spaces and public parks**

Surveys carried out revealed the inadequacy of recreation facilities. Thus, it is imperative that the municipality PDP reserves more space for the provision of recreational facilities in the town.

v). **Educational Facilities**

Analyses done indicated need for more educational facilities at the post primary level to supplement efforts of the private sector. Thus, Ntungamo Municipality PDP reserved spaces for the provision of educational facilities in the town.

vi). **Designated zones for commercial, residential and industrial development**

Zoning of land uses within the town for various user activities such as residential, industrial and commercial was lacking, thus their need in the PDP.

vii). **Roads**

Improving access to different areas in the municipality was paramount in promoting development. Thus, roads of different sizes and categories were proposed within the PDP to address such a need.

viii). **Agriculture**

More than eighty percent of the municipality residents still rely on agriculture as their main source of income, thus the need to reserve land for agriculture in the PDP. Further, reservation of land for future developments of the town and the need to provide inputs to the proposed agro-processing industries in the area was paramount.

CHAPTER SIX: NTUNGAMO MUNICIPALITY PHYSICAL DEVELOPMENT PLAN (2019 – 2029) PROPOSALS

Proposals in the Municipality Physical Development Plan (2019 – 2029) include commercial zones, human settlement areas, mixed commercial and residential zones, market centres, tourism related facilities such as hotels, agro-forestry areas, institutions, access roads and environmental protection areas. The proposed land use and areas covered are summarised in table 34 and Fig. 48, while Map 14 gives their spatial location within the Municipality Physical Development Plan (2019 – 2029).

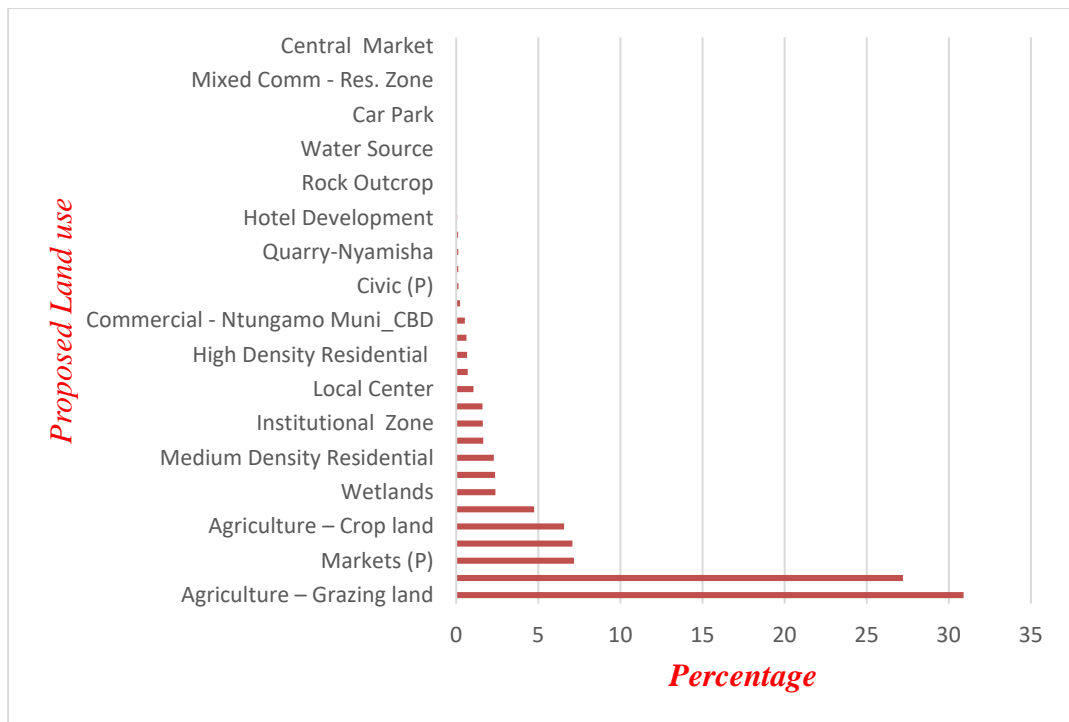
Table 34: Ntungamo MC PDP Land uses

Proposed Land use	Area (Ha)	%age
Agriculture – Grazing land	3,178.90	30.90
Mixed Residential Agriculture	2,799.65	27.21
Markets	737.63	7.17
Low Density Residential	728.18	7.08
Agriculture – Crop land	675.98	6.57
Recreational Zone	488.67	4.75
Wetlands	246.05	2.39
Tree Planting	243.40	2.37
Medium Density Residential	235.61	2.29
Commercial Use	170.19	1.65
Institutional Zone	166.23	1.62
Sewer Lagoon	164.90	1.60
Local Center	107.76	1.05
Forest and Woodland	71.82	0.70
High Density Residential	67.43	0.66
Hotel and Apartment	64.12	0.62
Commercial - Ntungamo CBD	54.08	0.53
Industrial Zone	23.31	0.23

Proposed Land use	Area (Ha)	%age
Civic zone	14.24	0.14
NFA Forest	13.13	0.13
Quarry in Nyamisha	12.95	0.13
Green Belt/Buffer	12.04	0.12
Hotel Development	6.49	0.06
Quarry – other	4.87	0.05
Rock Outcrop	3.76	0.04
Cemetery	1.95	0.02
Water Source	1.71	0.02
Solid Waste Site	1.58	0.02
Car Park	1.49	0.01
Abattoir	1.14	0.01
Mixed Commercial - Residential Zone	0.80	0.01
Water Tank/Reservoir	0.56	0.01
Central Market	0.53	0.01
Grand Total	10,289.11	100

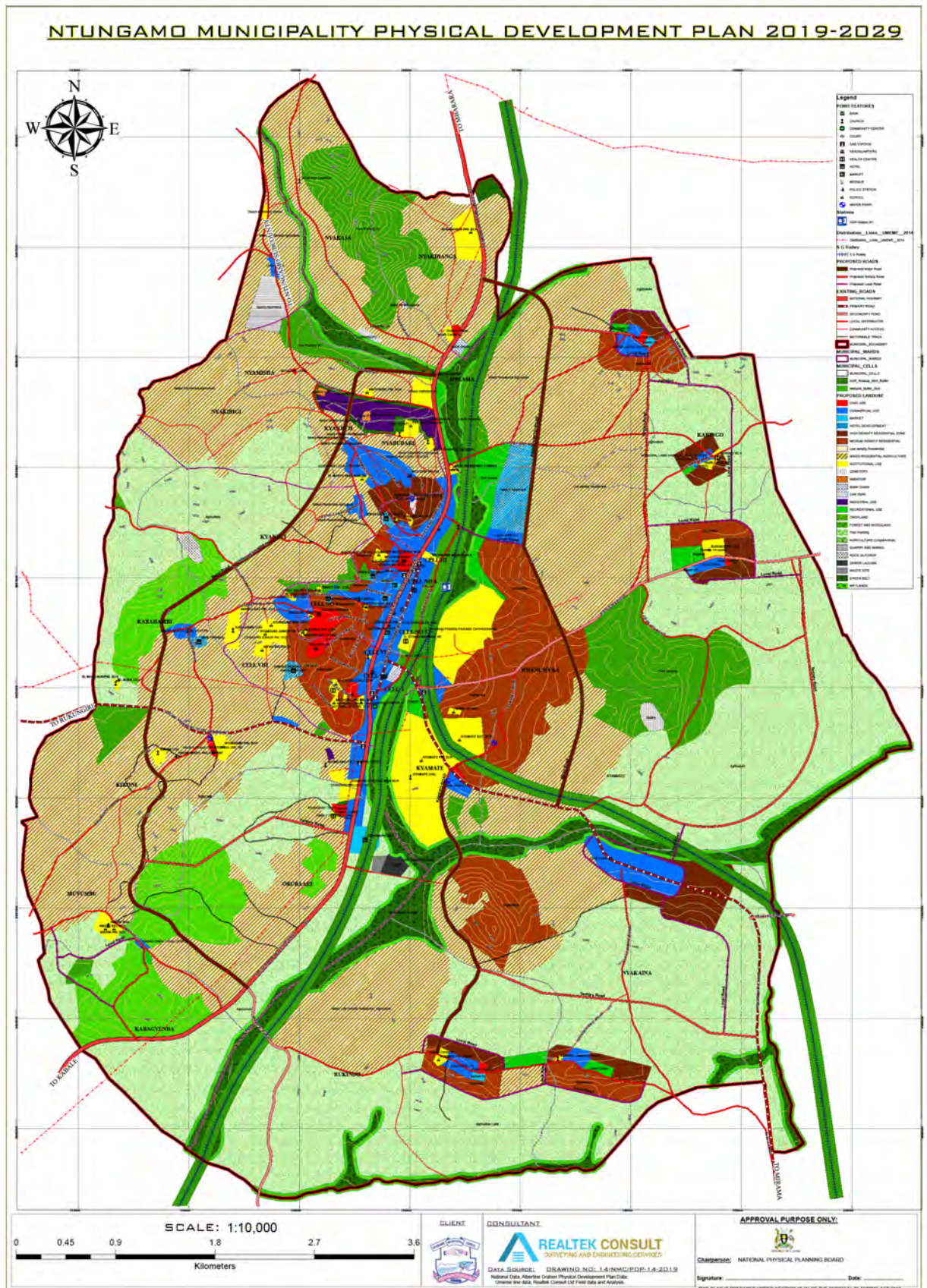
Source: Realtek Consult, June 2018

Fig. 48: Summary of Ntungamo PDP Land Uses



Source: Realtek Consult, June 2018

Map 14: Ntungamo Municipality Physical Development Plan (2019 – 2029)



Source: Realtek Consult, June 2018

6.1. COMMERCIAL ZONE

The existing commercial centre within the town was maintained occupying 54.08 Ha (0.5 Percent). Proposals were made for expansion to cater for the future developments of the municipality. Areas proposed for pure commercial developments include Cell No. 9, Cell No. 4, Cell No. 5, Cell No. 6, Cell No. 7, Cell No. 1, and Cell No. 3. The main aim was to create more employment centres and streamline economic growth of the municipality. Commercial zones are for the establishment of shopping centres, departmental stores, and hotels that offer tourism related services as major components of the commercial zone.

Kakigani, Kisangani, Mpaama, Kabingo, Kabagyenda, and Omuri Ishatu were zoned as local commercial centres occupying 107.76 Ha (1.05 percent). The aim was to decentralise development and growth to other parts of the municipality and bring employment opportunities, low order goods, and services required on a daily basis closer to the residents.

According to the National Physical Planning Standards and Guidelines (MoLHUD, 2008), the following activities are permitted within the commercial area:

- a) Shops as premises for the sale of goods to the public;
- b) Wholesale shops including premises for the sale of goods to retailers, excluding warehouses and distribution depots;
- c) Accommodation facilities including Hotels, Rest-houses, Lodges and Guest houses etc.;
- d) Services such as Banking institutions, forex bureaus, Restaurants, post offices, etc.;
- e) Service industry including Maize mills, wood/furniture workshops, garages etc.;
- f) Market centres including premises for sale of consumer goods and farm produce to the public;
- g) Services centres like clinics, drug shops, pharmacies, and maternity homes;
- h) Entertainment places like Bars, Night clubs, cinema halls etc.;
- i) Office premises for conducting official business;
- j) Places of worship like churches and mosques;
- k) Community facilities like community halls and social centres, police station and barracks, etc.; and
- l) Other facilities such as motor showrooms, fuel filling stations, vehicle garages and workshops, etc.

Proposed Development Guidelines

- ✓ For beauty enhancement, Skyline along Mbarara – Kabale highway and Ntungamo – Mirama Hill highway should be 5 levels.
- ✓ Setback from the highway should be 3 m
- ✓ The canopy should be covered
- ✓ Service lane of 6 m should be provided to cater for loading, offloading, and services provision.

The proposed commercial zones cover 331.94 Ha (3.23 percent) of the planning area.

6.2. MIXED USE DEVELOPMENTS

Proposed mixed-use developments included Mixed Commercial – Residential (MCR) zones and Mixed Residential – Agriculture (MRA) zones guided by the existing situation and the projected growth trends for the municipality. These were allocated 2,799.65 Ha (27.21 percent) of the municipality land.

Mixed Commercial – Residential zones were proposed in central part of the municipality while the Mixed Residential – Agriculture zones were reserved for the outskirts of the municipality in the areas of Kabingo, Mpaama, Nyakihanga, Nyakasa, Nyamisha, Nyakibigi, Kyanju I, Kikoni, Muyumbu, and Orubaare areas.

The proposed development options for mixed commercial and residential zones include the establishment of high-rise structures three to five levels for effective utilisation of the urban air space. The ground and first floors will provide commercial spaces while the second and third floors will provide space for offices. Residential apartments and hotel developments will occupy the fourth and fifth levels while the top will provide space for restaurants and bars. The limitation to five levels was to allow free air circulation within the CBD and promote beauty along the highway. It is also important to note that all applications for development within the municipality **MUST** obtain a no objection from Ntungamo Municipal Council Physical Planning Committee for final approval.

The proposal of mixed residential and commercial zones were based on the existing situation where the current use is mixed developments especially in the town centre. The proposed land under mixed commercial – residential developments is 0.80 Ha, which is 0.01 percent of the total planning area.

6.3. MARKET CENTRES

The municipality PDP incorporated the existing central market occupying 0.53 Ha (0.01 percent) to supplement the proposed local commercial centres. Local commercial centres proposed in Kabingo, Rwencwera, Kyamate, Rukindo, Kikoni, Kabagyenda, and Nyamisha would serve commercial interests of communities that are far from the CBD. This would also decongest the town centre and decentralize services to rural parts of the planning area. Proposed market centres were allocated 737.63 Ha (7.17 percent) of the planning area.

Furthermore, the plan recommends reconstruction of the central market to suit the municipality status and renovation and rehabilitation of the taxi park and the lockup shops. These would ensure that more space is available for commercial activities.

6.4. RESIDENTIAL AREAS

Residential neighbourhoods were designed to accommodate the various categories of densities. The main objective was to provide living space for town residents. It is worth noting that, demand for residential plots will continue to rise due to increased population growth as a result of natural population increase, rural to urban migrations and the increasing demand for housing by the working population. Thus, all residential developments are subject to Physical planning regulations. The proposed residential zones were based on the anticipated residential growth within the planning period.

Residential areas were proposed in Nyakibigi, Nyamisha, Nyabubare, Nyakina, Kikoni, Rwencwera, and Kabingo. Settlement areas occupy 1,031.22 Ha of land, which is 10.03 percent of the planning area (See table 35).

Proposed Development Guidelines

- ✓ For beauty enhancement, residential areas may be allowed to maximum height of 2 floors to effectively utilise the available space (See Fig. 49);
- ✓ They should be offset from the road as required by the National Physical Planning Standards and Guidelines (See Fig. 50).
- ✓ Minimum plot sizes of 20 x 30 m (600 Sq. M) were taken as a guide for designing residential layouts to make best use of urban land; ease infrastructure provision and minimize infrastructure costs per plot by laying out plots in a rectangle shape. The shorter side located along the access road.
- ✓ All buildings be designed with setback distances from plot boundaries for privacy, amenity, health, safety and development coverage requirements.
- ✓ All residential developments be provided with direct vehicular access to a road as a legal requirement under Section 28 of the Public Health (Buildings) Rules SI No. 281. It is stated that:

“No building shall be erected on any plot which has no proper and sufficient access to a road or road reserve, such road or road reserve not being a sanitary lane or passage”.
- ✓ All wall fences within residential areas shall be live fences or be to a maximum height of 2 metres. 1 metre from the ground will be made of brick/concrete wall while the upper section shall be made of metal grill to allow air circulation within the premises (See Fig. 51 and 52).
- ✓ Other proposed guidelines are summarised in table 36.

Table 35: Summary of plot sizes and plot coverage for residential settlements

<i>Parameter</i>	<i>Densities</i>		
	<i>Low</i>	<i>Medium</i>	<i>High</i>
<i>Plot Area (Sq. M)</i>	750 - 1,000	600 – 750	450 – 600
<i>Minimum plot width (M)</i>	25	20	15
<i>Minimum plot length (M)</i>	40	30	30
<i>Maximum plot coverage (%age)</i>	20	40	50
<i>Building line</i>			
<i>(a). Front (M)</i>	8	6	3
<i>(b). Side (M)</i>	3	2	2
<i>(c). Rear (M)</i>	12	8	2
<i>(d) Servants Quarters (M)</i>	3	3	-
<i>Onsite parking pace</i>	2	1	-
<i>Vehicular Access (minimum width) (M)</i>	3	3	-
<i>Corner Radii (M)</i>	3	3	-
<i>Parameters for Vertical Buildings (units) ¹</i>	2	3	8

Source: National Physical Planning Standards and Guidelines (MoLHUD, 2008)

¹ All residential buildings of more than 2 (two) floors should have an additional setback from boundaries of 1 – 5 m per additional floor

Fig. 49: Concept of low density residential developments



Concept designs for low density residential developments

Fig. 50: Concepts for medium density residential developments



Proposed concepts for Urban Housing Estates

Fig. 51: Setbacks for low density residential developments

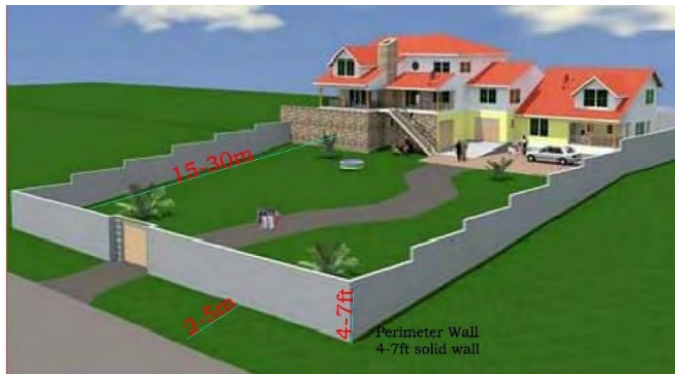


Fig. 52: Setbacks for medium density residential developments



6.5. INDUSTRIAL ZONES

The proposed industrial zone in Nyabubare and Rwencwera will cater for light industrial activities such as Agro processing, metal fabrication, carpentry and joinery, Auto repair workshops and garages, maize milling centres, coffee processing and bakeries. This was guided by field study findings that revealed that the major industrial activities in the municipality with a likelihood of expanding. Based on the above, Agro Processing and Light Industrial developments were proposed to serve the industrial development needs of the municipality. Plot sizes were 30 x 60 m (100 ft. x 200 ft.).

Agro-processing activities include milling centres, fruit juice processing and packaging of energy drinks, bakeries and warehousing. Agro-processing factories shall provide ready market for agricultural produce as inputs/raw materials, thus increased household incomes and revenue for the municipality in form of taxes, permits, and licences. This brings about economic development of the municipality. The proposed industrial zones cover 23.31 Ha (0.23 percent) of the total area.

6.6. CIVIC CENTRE

The Municipality PDP maintained all existing civic developments. They included Ntungamo Municipal Council Offices, Ntungamo District Headquarters, and Courts of Judicature. They occupy 14.24 Ha (0.14 percent) of the planning area.

6.7. TOURISM POTENTIALS

To promote cultural tourism, Ntungamo Municipality PDP (2019 – 2029) maintained the existing hotels and resorts such as Ankole Resort, camping sites, and bird watching sites to promote the development of tourism and the establishment of tourism information centres. The hotels and tourism centres will have self-contained apartments for hire and hotels of various grades to suit all types of visitors to the municipality, Information and Communication Technology (ICT), and MICE (Meetings, Incentives, Conference, and Events) to supplement tourism development.

The proposed Tourism Resource/Information Centre will provide information on the cultural center, the various hotels; provide guidelines and information to tourism attractions in the municipality and in the neighborhood.

The municipality provides an ideal base from which to explore attractions in Western Uganda given its central location and easy reach of local lakes, and museums, great base for undertaking safaris in the nearby Queen Elizabeth National Park as well as chimpanzee and gorilla trekking. Tourists will also be able to travel to Tanzania and Rwanda from Ntungamo within a few hours ride.

Furthermore, the villages of Itojo and Ruhanga are some awesome avenues for mountain walks in a few miles and tourists in Ntungamo would travel to see the legendary Karegyeya Rock whose history encompasses local traditions of the ancient Bachwezi. More attractions from Ntungamo include visiting the Kitagata or Mulago (meaning 'hospital') hot springs, which are believed locally to have healing powers. 70.61 Ha (0.68 Percent) of the planning area was reserved for Ecotourism facilities such as Hotels, Apartments cultural and craft centre.

6.8. CULTURAL AND CRAFT CENTRE

This will provide space to people involved in the making of handicrafts and showcase their products, the Kinyankore culture, cultural artefacts and the history of Ankole kingdom. These will boost cultural tourism in the municipality and the district in general.

Preservation of the Ankole cultural practices for the young generation to learn from and as a tourist attraction was found paramount. Participants will generate income from tourists who come to learn about the Ankole culture, hire out the venue for meetings, weddings and other social functions. The municipality will collect revenue from the business operators, thus increased revenue for service provision.

6.9. INSTITUTIONAL ZONES

The proposed institutional zones will cater for education, health, and religious facilities. They occupy 166.23 Ha (1.62 Percent) of the planning area including the existing institutional facilities as discussed below.

6.9.1. Educational facilities

In addition to the existing educational facilities, the PDP reserved space for the proposed Agricultural Demonstration and Farm School and the African University. The aim was to supplement efforts of equipping residents with hands-on skills in various disciplines. Education institutions were allocated 160.94Ha (1.57 percentage) of the planning area.

6.9.2. Health Institutions and Facilities

Situation analysis revealed that the existing health facilities were insufficient for the projected population of 1,274,459 people within the planning period, thus the basis for the following proposals:

- a) There is need to upgrade the existing facilities to the required standards set by the Ministry of Health;
- b) Upgrade the existing HC III to HC IV to serve the urbanites better. Accordingly, HC IV requires 4.5 Ha of land to cater for the construction of health facility structures on four hectares and 0.5 hectares for additional facilities. HC IV will efficiently serve 100,000 residents. Thus, the projected population will require 3 HC III and 1 Hospital within the planning period;
- c) Based on the recommended walking distance of not more than 5 km from the health facility, there is need for the municipality to establish more health facilities. Thus, the proposed HC III at the following locations namely: (a). the proposed site for Eastern Division Headquarters, (b). Kabingo HC III, and (c). Rukindo HC III, and
- d) Interventions are required to ensure that these health facilities have sufficient essential drugs and qualified doctors to provide better services to municipality residents.

Thus, PDP reserved 3.68 Ha (0.04 Percent) of the planning area for the construction of one hospital to supplement the existing health facilities to provide better services to the municipality residents.

6.9.3. Religious Centres and Places of Worship

The existing places of worship were maintained and no new proposals were made within the planning period.

6.9.4. Police Posts

To improve on the security issues of the municipality especially in the outskirts, the plan proposed the establishment of Police Posts in Ruhooko, Mpaama, Rukindo, and at

Central Division Headquarters. The plan's emphasis is to facilitate and attract tourists to Ntungamo with an aim of enabling the Municipality to achieve the desired vision of becoming a tourism destination centre, safety of residents and visitors should be paramount, thus, the need for the police posts to support the existing Police Station. Land measuring 0.8 Ha was reserved for the construction of police posts.

6.10. RECREATIONAL FACILITIES

These are instrumental in the promotion of a healthy mind within a healthy body through fitness and mobility, prevention against diseases such as high blood pressure, diabetes, back pain etc. These facilities will also host sports event at National and Regional levels, thus a tourist attraction and a source of revenue for the municipality.

The existing recreational gardens, Green Corridors, playgrounds and other facilities such as public open spaces, play lots, playgrounds, and hotels were maintained. In addition, space was reserved for provision of more recreational facilities such as Golf Course in Central Ward, Eco-tourism Centre, Hotels, and Resorts (See Fig. 53). Recreational facilities cover 488.67 Ha (4.75 percent) of the planning area.

Recreational facilities will provide residents with the following benefits:

- ✓ Improved healthy mind within a healthy body;
- ✓ Increased fitness and mobility;
- ✓ Prevention against high blood pressure, cancer, diabetes, back pain etc.;
- ✓ Hosting sports events at local, district and regional level;
- ✓ Tourist attraction; and
- ✓ Sports and Skills development among the youths.

Fig. 53: Proposed recreational activities



Recreational Parks



Fitness centre activities

6.11. AGRICULTURE AREAS

Since majority of the residents of Ntungamo town rely on agriculture (crop farming and cattle rearing) as the main source of income for their livelihoods, it was found prudent that the plan reserves more land to enhance the activity. This would ensure that residents practice modern farming methods such as commercial farming, plantation agriculture, irrigation farming, use of green houses, Back yard farming, use of resilient local varieties for bananas (Matooke), potatoes, cassava, maize, millet etc., crop rotation and processing of farm yard manure from solid wastes as input into farming (See Fig. 54).

This will ensure all year round supply of food to the municipality residents and the neighbouring areas. Furthermore, modern farming methods will ensure plentiful supply of inputs/raw materials to support agro-processing factories, thus ready market for the produce. This will provide employment opportunities to the town residents thus, increased household incomes, provide revenue in addition to being a foreign exchange earner for the municipality and provide raw materials to sustain agro-processing and industrialisation of Ntungamo Municipality.

This will result into economic growth and supplement Government of Uganda's efforts through OWC aimed at poverty alleviation. Agricultural innovations zones were allocated 675.98 Ha (6.57 Percent) while 3,178.90 Ha (30.90 Percent) of land was reserved for farmlands.

Fig. 54: Recommended Modern Agricultural Practices





Green House Farming and Irrigation Farming



Some examples of Back yard farming Practices and the recommended crops



Use of resilient local varieties and short growing crops to tap into the climate changes

6.12. AGROFORESTRY AND TREE PLANTING ZONES

To supplement the existing forests in the municipality such as the NFA land and other private plantations, an area of 315.22 Ha (3.070 percent) of the planning area, was reserved to encourage tree planting and increase forest cover in Ntungamo Municipality. This is due to the various benefits that accrue from forestry to the municipality and her inhabitants. For instance, forests regulate climatic conditions of an area, help in controlling soil erosion and inhabitants generate income from such forests. Forests also serve as windbreakers especially against strong winds during the dry seasons. The forests when sustainably managed provide raw materials for the furniture industry, thus increased revenue for the municipality and income sources for the residents.

The proposed tree planting areas can be resourceful avenues for the development of apiary projects, intercropping with coffee, and short crops that will not compete with trees (See Fig. 55). These will provide employment to the residents and income thus poverty alleviation.

Fig. 55: Proposed Agro-forestry Activities



Intercropping in agro-forestry areas with Coffee and other crops when still young



Apiculture in forested areas

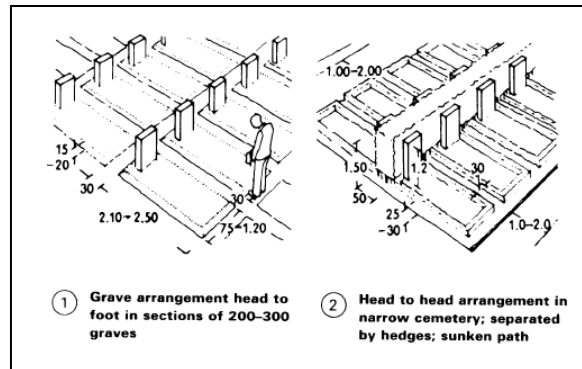
Thus, the municipality should encourage re-afforestation in close liaison with NFA and the Private Sector operators, to effectively manage climate and improve tree cover. Like it is practiced in the developed countries under the campaign for greening cities to help regulate global warming and climatic change, Ntungamo Municipality should borrow a leaf and start greening their town as well.

The tree-lined avenues recommended along all roads within the municipality will supplement tree planting.

6.13. PUBLIC CEMETERY

Ntungamo Municipality lacks a public cemetery and it was one of the major requirements by stakeholders. It is also mandatory for every urban centre to have public cemeteries and where possible separated according to religious beliefs. It was thus, found imperative to reserve 1.95 Ha (0.02 percent) of land for the location of cemetery in Kahunga. Fig. 56 illustrates the proposed arrangement of graves in a public cemetery or graveyard.

Fig. 56: Arrangement of graves in a Cemetery



Source: Neufert, Ernst and Peter Architects Data 3rd Edition 2000

6.14. SPECIAL AREAS

The existing special areas were maintained by the PDP. They include:

- a) the UPF Barracks,
- b) the Ntungamo District Police Station, and
- c) Other military and security installations in the municipality such as Police Posts.

6.15. WORKS AND TECHNICAL SERVICES

PDP Proposals included roads of different categories and sizes; wastewater treatment and water supply networks; abattoir; sewerage lagoons and treatment plant; water harvesting facilities; power lines and telecommunication facilities as follows:

6.15.1. Roads

Proposals for improving accessibility took an analytical course of the existing roads in the municipality. The existing roads were maintained with proposed improvements to enhance safety and alignment of utility services that shall be placed along the roads and adhere to the required planning standards (See table 37). Proposed roads by category are as follows:

Road Category	Length (Km)
Proposed Local Roads	16.429
Proposed Major Roads	15.889
Proposed Tertiary Roads	11.316
Total	43.33

Notable projects in Ntungamo Municipality PDP include:

- a) three locations where Intersection improvements are required namely the junction of New Kabale – Mbarara Highway and Old Ntungamo – Kabale road in front of the Municipal Council; junction of Old Ntungamo – Kabale road and Mirama Hill road and Old Ntungamo – Kabale road and New Kabale – Mbarara Highway in front of the Catholic Church. These require separation of the traffic lanes and provision of signalised traffic lights;
- b) pegging, surveying and opening up all the proposed roads to attract investors and developments to these areas and promote orderly developments. These are detailed in Chapter Nine Section 9.1;
- c) Upgrading access roads to motorable roads with the aim of improving accessibility to all parts of the municipality guided by existing footpaths frequently used by communities to link villages to existing roads (See Map 15);
- d) Upgrading access roads to secondary road status with road reserve widths of 15 – 20 M;
- e) Provision of vehicle stops on all Sub-arterials and Urban streets,
- f) Introduction of paved walkways that are separated from motorized traffic;
- g) Tarmacking, widening and construction of lined channels for all roads in the municipality. The proposed prioritization of roads for construction may be as follows:
 - ✓ Kajinya – Tindibakira road Phase I (0.9 Km)
 - ✓ Binyerere road (1km)
 - ✓ Kajinya - Tindibakira road (1.0km)
 - ✓ Banyagi road (1 km)
 - ✓ Garage Street road (1.5 km)

- ✓ Mbaine road (0.5 km);
- ✓ Kankore – Mukungu road (2 km)
- ✓ Kanuma – Karyeija road (2 km)
- h) Standards for commercial plots to include ingress (way in) and egress (way out) provisions;
- i) Requirements for off-street parking by developers and promote the development of off-street parking facilities (Multi-storied parking structures);
- j) Construction of proposed service lanes within commercial zones to ease loading, offloading and provision of services/utilities; and
- k) proposed pedestrian walkways along all roads in the town to promote the use of non-motorised green modes of transport.

Table 37: Proposed road types and sizes.

<i>Road type</i>	<i>Road reserve width (m)</i>	<i>Carriage way (m)</i>
<i>Primary road</i>	<i>30 – 50</i>	<i>26</i>
<i>Secondary road</i>	<i>20</i>	<i>10</i>
<i>Local distributor/ tertiary</i>	<i>20</i>	<i>10</i>
<i>Access residential</i>	<i>15</i>	<i>8</i>
<i>Access commercial</i>	<i>20</i>	<i>10</i>
<i>Cul-de- sacs</i>	<i>10</i>	<i>5</i>
<i>Service lane</i>	<i>6</i>	<i>6</i>
<i>Foot paths/ pedestrian precincts</i>	<i>2</i>	<i>2</i>

Source: MoLHUD Standards and Guidelines, 2008

6.15.2. Bus and Taxi Parking Facilities/ Terminals

To improve transport within Ntungamo Municipality and create order in the CBD especially along Mbarara – Kabale road and Mirama hill road, 1.4 Ha of land was reserved for the establishment of modern bus and taxi parking facility. This will reduce on roadside loading and offloading of passengers and traffic related accidents within the town. This has been supplemented by lorry parking in designated areas such as in the proposed market where loading and offloading of goods will be carried out. The proposed bus park will be serviced by shops, saloons, restaurants/ take-away facilities, offices for buses and stores for passengers' luggage.

Furthermore, rehabilitate the existing taxi park in Cell No. 5 to provide more space for lock-up shops. Probable interventions to improve its operations include:

- a) Construction of a storied taxi park facility serviced with rentable space for offices, shops, restaurants, fast foods/ take-away facilities, refreshment points, parcel delivery and pick-up points, stores for passengers' luggage, saloons, and express shopping facilities [See Fig. 57];
- b) Construction of covered waiting sheds for passengers;
- c) Construction of public toilet facilities at the park; and
- d) Provision of hard surface with improved drainage facilities and designated parking spaces according to their routes of destination. This will ensure mud-free parking facility and ease of finding taxis to particular routes.

The proposal is that taxis that ply Kabale - Mbarara highway and Rukungiri - Mbarara highway via Ntungamo shall only load and offload passengers and their merchandise within the taxi park. The park will also cater for town service taxis that serve municipality residents. No taxis should park, load, and offload along Kabale – Mbarara highway. The aims are to decongest the highway, improve traffic flow in the municipality, and reduce road accidents.

Fig. 57: Proposed concept for the taxi park



Source: M/S Realtek Consults Limited, Aug, 2020

6.15.3. Town Abattoir Site

The new municipality abattoir is under construction in Kanju II opposite Binyerere Primary School within the proposed industrial park. The design for the abattoir comprises of the cattle holding ground, slaughtering place and the hang room. The abattoir occupies 1.14 Ha (0.02 Percent) of the planning area.

6.15.4. Sewerage Lagoons

Sanitation facilities and services are required to protect public health. Wastewater and storm water networks contribute to management of health and floods in the community. Without sanitation facilities commercial, industrial, health and education facilities would not function. Storm water infrastructure contributes to flood management in urban areas enabling effective and efficient operation of the road network.

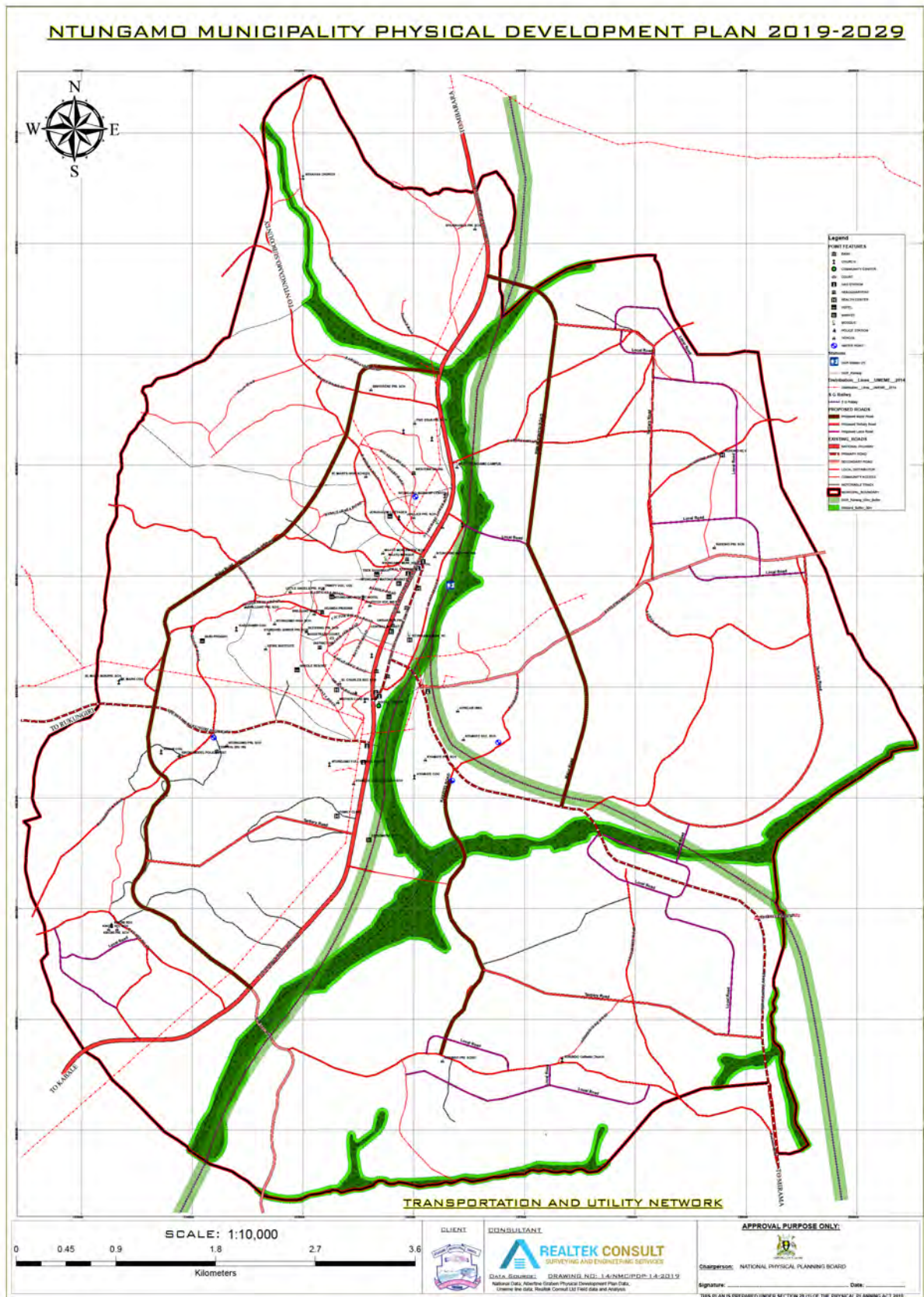
National Water and Sewerage Corporation (NW&SC) operates and provides water and sewerage services to 18 large urban centres including Ntungamo Municipality. Their activities aim at expanding service coverage, improving efficiency in service delivery and increasing labour productivity. Ntungamo Waste Stabilisation Ponds and Waste Water Works located along Mbarara – Kabale highway are operated and maintained by NW&SC. Waste water collected from the municipality is deposited here by cesspool emptier vehicles. Analysis revealed that this was not sustainable for the municipality. Thus, 164.90 Ha (1.60 percent) was reserved by the by the Municipality PDP for the establishment of sewerage lagoons along Kakyongora Swamp along Mbarara – Kabale highway near the existing solid waste management site.

6.15.5. Standard Gauge Railway

The proposed Standard Gauge Railway line from Mbarara City enters Ntungamo Municipality between Nyakihanga and Mpaama areas along Mbarara – Kabale Highway. According to NDP III and Standard Gauge Railway Line Plans, there is a proposed Railway junction in Cell No V where one arm follows Mirama Hills road to Rwanda and another arm follows Kabale road. The railway line was provided a Railway Station in Cell IV.

The Municipality PDP reserved a wayleave of 60 Meters i.e. 30 Meters on each side as required to cater for the development of 18.21 Km of railway line.

Map 15: Proposed Transportation and utilities network in Ntungamo Municipality



Source: M/S Reatek Consults Limited, Jan 2019

6.16. ENVIRONMENTAL AND NATURAL RESOURCES

6.16.1. Water Catchment/Buffer Areas

Safe and pathogen free water is essential for economic development of the town. To sustainably promote economic development in Ntungamo Municipality, water catchment areas were identified and efforts made to preserve them for sustainable use. Thus, a buffer area of 30 M was earmarked along all swamps in Ntungamo Municipality as water catchment areas, and sources of water for irrigation farming. The proposed buffer will stop further encroachment on the environmental sensitive areas and is in compliance with requirements by NEMA. A total of 12.04 Ha (0.12 Percent) of the planning area was reserved for such an activity.

6.16.2. Swamps/Marsh Areas

These occupy 246.05 Ha (2.39 Percent) of the total planning area. In an effort to protect them from further encroachment and depletion, the Municipality PDP proposed several strategies including the introduction of a buffer zone of 30 meters along these environmental sensitive areas to stop further loss of these sensitive areas. Other strategies include demolition of all developments in areas that were formerly under wetlands and restoration of the depleted areas to wetlands and forest reserves. The proposed buffer zones cover 12.04 Ha (0.12 percent) of the planning area.

6.16.3. Rock Outcrop and Quarry Zones

These are located at Nyamisha, Kyamate, and Kabahambi occupying 21.58 Ha (0.22 percent) of the planning area. These are instrumental in the development of the construction industry, provision of employment opportunities to the residents and a source of revenue for the municipality. Thus, they were maintained by the PDP.

6.17. ENVIRONMENT CONSIDERATIONS

6.17.1. Beauty and Aesthetics of the Town.

Parks and other recreation areas like forests reserves, community and recreational gardens, play lots, playgrounds, stadium and open spaces proposed. This will promote environmental quality and sustainability. Tree planting in compounds and the creation of tree lined avenues is highly encouraged. Also buffer zones have been proposed to protect environmentally sensitive areas from encroachment.

6.17.2. Pollution

Environment Pollution is a major concern in urban areas. Forms of pollution include air, water, land, and noise pollution. Table 38 shows the likely environmental pollution sources in the town and the possible mitigation measures.

Table 38: Pollution Sources and Mitigation Measures

Pollution sources	Mitigation measures
1) Commercial and domestic solid wastes	<ul style="list-style-type: none"> • Designing an efficient waste management system
2) Burning of solid wastes like polythene bags	<ul style="list-style-type: none"> • Adopt sustainable solid waste management practices such as waste sorting from the source
3) Fumes from vehicles and generators	<ul style="list-style-type: none"> • tree planting along the roads to absorb the dangerous fumes
4) Oil and fuel spillages from auto garages and vehicle repair workshops	<ul style="list-style-type: none"> • Contain all discharged material. Such material ought to be handled, stored and disposed of in accordance with the National Environment (Waste Management) Regulations, 1999;
5) Special wastes from health centres, drug shops, pharmacies and hospitals	<ul style="list-style-type: none"> • Such material ought to be handled, stored and disposed of in accordance with the National Environment (Waste Management) Regulations, 1999; • Ensure that such facilities install incinerators to handle burning of body parts from health facilities and placenta pits where necessary.
6) Exposing the soils to agents of erosion after excavation of marrum for road construction	<ul style="list-style-type: none"> • Refilling the barrow pits after road construction
7) Construction Debris	<ul style="list-style-type: none"> • Use site environmental management plans • Manage the debris on site
8) Depletion of soil fertility	<ul style="list-style-type: none"> • Sensitization on appropriate farming practices • Practice bush fallowing
9) Mismanagement of natural resources Like Wetlands Forests	<ul style="list-style-type: none"> • The need to create buffer zones to curb encroachment of natural resources • Enforce environmental management regulations
10) Destruction of vegetation during construction	<ul style="list-style-type: none"> • Plant grass after construction
11) Encroachment on wetlands	<ul style="list-style-type: none"> • Provide buffer zones for protecting wetlands • Community sensitization on use of wetlands
12) Dust arising from opening up of roads	<ul style="list-style-type: none"> • Surface Wetting during construction

Source: Realtek Consult, June 2018

6.17.3. Drainage Master Plan for the Municipality

Storm water is undirected because majority of roads lack roadside drains and culverts. Where the drains exist, they are in poor condition and often clogged by solids, which at times cause flooding whenever it rains. Thus, the plan recommends for the preparation of a Comprehensive Drainage Master Plan for the Municipality.

6.17.4. Solid Waste Management

Ntungamo Municipality already has challenges related to collection, storage, transportation, and final disposal of solid wastes in an environmentally friendly manner. The implementation of the plan will increase on the amount of waste generated thus, a proper solid waste management plan and strategy is required and should include waste separation at source of generation. This will promote the 3R Principle: Reduce, Reuse and Recycle and may be improved to generate income through the sale of farmyard manure to farmers. The proposed solid waste management site (Solid Waste Recycling Plant) was allocated 1.58 Ha of the planning area. Waste recycling shall involve the following activities:

- a) wastes be managed at household level involving waste separation using 3 or 4 containers/bins of different colours (See Fig. 58). This would ensure that biodegradable wastes are processed into manure, to facilitate recycling and reuse of other wastes;
- b) Garbage collection centres are located appropriately to ensure systematic solid waste management in the planning area;
- c) garbage collectors should adhere to set timetables to avoid piling of wastes around the collection points;
- d) Active partnerships are formed between Ntungamo municipal council and well-wishers or private investors to ensure that wastes are collected accordingly; and
- e) The municipal council should restrict burning of plastics. This will be reinforced by the inclusion of LC 1 Chairpersons who will also ensure that open dumping is restricted within their areas of jurisdiction.

Fig. 58: Waste Collection Containers



PART TWO

CHAPTER SEVEN: NTUNGAMO MUNICIPALITY CENTRAL AREA LOCAL PHYSICAL DEVELOPMENT PLAN (2019 – 2024)

This Central Area Local Physical Development Plan (2019 – 2024) was prepared in conformity with the proposed Municipality Physical Development Plan (2019 – 2029). The LPDP is based on the existing town layout with minimal alterations made to align the existing access roads to conform to the acceptable standards.

7.1. OBJECTIVES OF THE MUNICIPALITY LPDP

The development of this LPDP was based on the following aims and objectives:

- a) To streamline the implementation of the Municipality PDP (2019 – 2029),
- b) To avert the upsurge of unplanned developments in the town,
- c) To clearly demarcated plot area boundaries,
- d) To define plot densities (floor area ratio, plot coverage, setbacks, frontage), and
- e) To ease access to property within the planning area.

7.2. AREA COVERAGE AND DETAILED PLAN AREA

The LPDP covers 251.27 Ha (2.51 Sq. km). It comprehensively covers the areas of Nyabubare, Kyanju I, Kyanju II, Cell No. 9, and Cell No. 8 as shown in Map 11.

7.3. PLAN DESIGN PRINCIPLES

The design principles used in the preparation of the plan are essential to the development of a sustainable, coherent detailed planning framework for Ntungamo Municipality. They include the following:

7.3.1. Neighbourhood Concept

This principle applied in the promotion of zoning neighbourhoods that are sustainable to encourage positive relationships between neighbouring zones.

7.3.2. Accessibility and Interconnectivity

Different land use zones are connected through a network of roads. These aid residents to get around on foot, by bicycle, by motorcycle, public transport and private car and connect to the neighbouring areas. The adopted road hierarchy consisting of primary, secondary, tertiary, access roads and service lanes. The plan is laid out to ensure that all plots are accessed by road. Accessibility was improved by the inclusion of new roads to promote easy transportation of agricultural produce to the market.

7.3.3. Environmental Quality

The plan took into consideration the wellbeing of environment by addressing issues of preservation, conservation, improvement and sustainability of the physical environment. Thus, greenbelts, tree planting areas and areas for environmental preservation were reserved by the plan as well as suggesting appropriate environment management practices. Thus,

consultations were made with stakeholders to establish the best practices in increasing tree cover within the municipality.

7.3.4. Promotion of Employment Opportunities

Several employment centres were planned for in the commercial zones, the recreational centres, resorts, and hotels, market centres, selling of handicrafts to tourists, transport, and agro-forestry.

7.3.5. Compatibility of uses

This principle was applied when locating land uses that derive benefits from each other together, for instance residential developments next to commercial area since residents work in commercial developments as employment centres, agro-forestry restoration areas and recreational facilities. Thus, the separation of land uses that can be nuisance or in conflict with each other.

7.3.6. Places for People

For places to be well-used and well-loved, they must be safe, comfortable, varied and attractive. They also need to be distinctive, offer choice and variety. Vibrant places such as public open spaces, community centres, recreational parks, resort/hotels, markets and institutions offer opportunities for meeting people were catered for by the plan.

7.3.7. Enrich the Existing Situation

New proposals were designed to enrich the quality of existing urban places within the municipality by encouraging a distinctive response that arises from and complements its setting.

7.3.8. Design for Change

Proposed developments are flexible enough to respond to future changes in use, lifestyle, and demography. This means designs considered energy and resource efficiency, flexibility in use of property, public spaces, and service infrastructure and introduction of new approaches to transportation, traffic management, and parking.

7.3.9. Hierarchy of Service Provision

Service provision was designed to take advantage of the central place but also in a hierarchical form. The services were spread out considering importance, need and numbers to be served. The zoning and lay out of other functions like residential, roads was also done in a hierarchy form.

7.3.10. Flexibility

The prepared plan allows for reviews to accommodate new and rational ideas thus flexible. This also caters for midterm reviews to check progress of plan implementation. The plan is subject to reviews and changes to accommodate the dynamics of the situations and provides space for future expansion.

7.3.11. Innovativeness and Adoptability

The plan was prepared taking into consideration new ideas as well as innovative strategies that can be easily adopted. The plan adopted the existing situation as well as new plan proposals aimed at positioning Ntungamo Municipality to benefit from tourists plying the Kampala – Kabale – Rwanda highway; Ntungamo – Mirama Hill – Rwanda highway, and Ntungamo – Rukungiri – Kanungu – Democratic Republic of Congo highway by 2040.

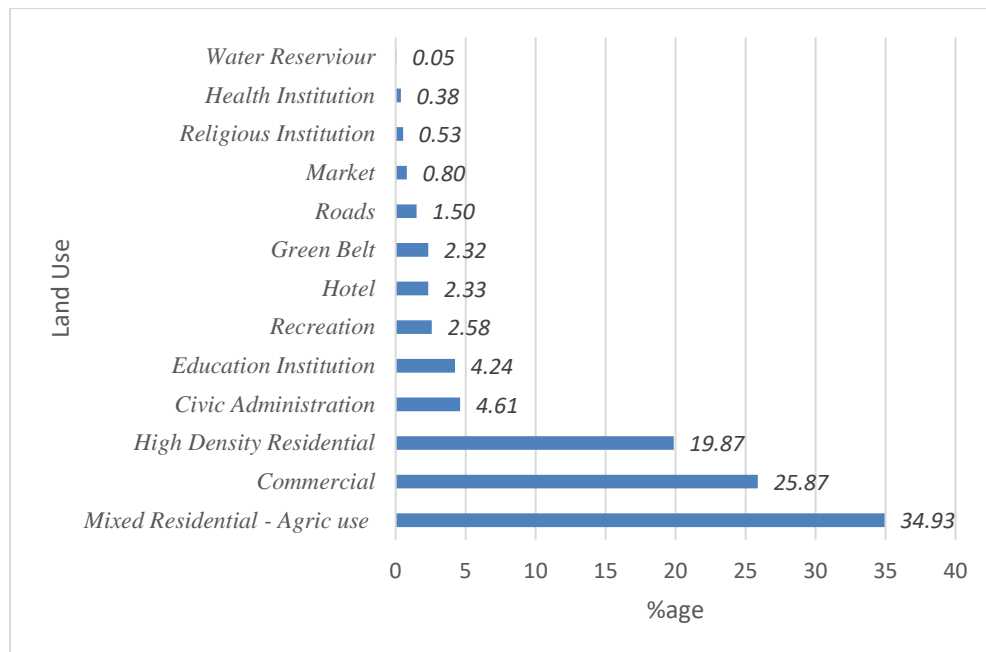
7.4. NTUNGAMO MUNICIPALITY CENTRAL AREA LOCAL PHYSICAL DEVELOPMENT PLAN (2019 – 2024) PROPOSALS

Several proposals were suggested in the Local Physical Development Plan for Ntungamo Municipality (2019 – 2024). They include commercial zones, human settlement areas, mixed commercial and residential zones, market centres, tourism related facilities such as hotels, agro-forestry areas, institutions, access roads and environmental protection areas. The proposed land use and areas covered are summarised in table 39 and Fig. 59 while Map 16 gives their spatial location within the Municipality.

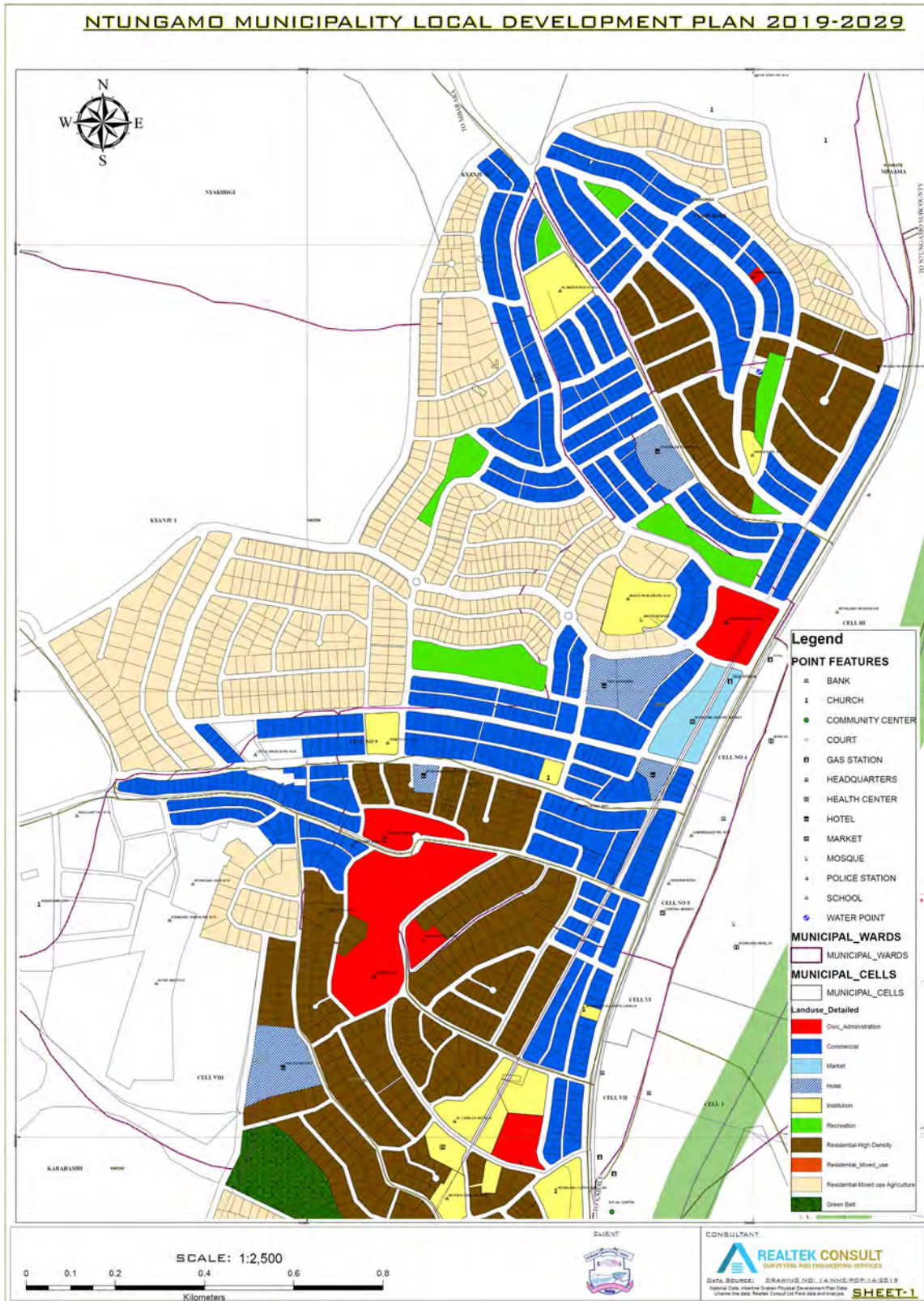
Table 39: Summary of proposed land uses

Land use	Acres	%ages
Mixed Residential Agriculture use	216.88	34.93
Commercial	160.65	25.87
High Density Residential	123.35	19.87
Civic Administration	28.61	4.61
Education Institution	26.31	4.24
Recreation	16.04	2.58
Hotel	14.44	2.33
Green Belt	14.43	2.32
Roads	9.29	1.50
Market	4.95	0.80
Religious Institution	3.27	0.53
Health Institution	2.34	0.38
Water Reservoir	0.33	0.05
Grand Total	620.896	100

Fig. 59: Summary of proposed LPDP (2019 - 2024) land uses



Map 16: Ntungamo Municipality Local Physical Development Plan (2019 – 2029)



7.4.1. Commercial developments

The existing commercial setup along Mbarara – Kabale highway was maintained and alterations made to reorganise the existing commercial centre and reduce on plan implementation costs. Proposals were made to further expand the commercial centre to areas under Cell No. 9, behind Ntungamo District Headquarters, Kyanju II, Nyabubare and areas along Ntungamo – Rukungiri road with the aim of creating more employment centres and streamlining economic growth of Ntungamo town. In this regard, commercial developments were proposed for the establishment of shopping centres, departmental stores and hotels that offer tourism related services as major components of the commercial zone.

All commercial plots were designed to have direct access road for vehicles and public walkways for pedestrians while a service lane of 6 meters was introduced to enhance business activities in the commercial zone. In instances where standard plot sizes were not achievable due to the existing developments, it is recommended that, during approval of urban redevelopment plans by Ntungamo MC, standard plot dimensions should be observed and adhered to, as a way of creating order in the town.

According to the National Physical Planning Standards and Guidelines (MoLHUD, 2008), the following activities are also permitted within the commercial area:

- a) Shops as premises for the sale of goods to the public;
- b) Wholesale shops including premises for the sale of goods to retailers, excluding warehouses and distribution depots;
- c) Accommodation facilities like lodges, hotels, motels and Guesthouses;
- d) Service centres such as banking institutions, forex bureaus, restaurants, post offices, etc.;
- e) Light industrial activities such as Maize mills, wood/furniture workshops, garages etc.;
- f) Market centres including premises for sale of consumer goods and farm produce to the public;
- g) Entertainment places like bars, night clubs, cinema halls etc.;
- h) Office premises for conducting official business;
- i) Places of worship like temples, churches and mosques;
- j) Community facilities like community halls and social centres, clinics, drug shops, police station and barracks, etc.; and
- k) Other facilities such as motor showrooms, fuel filling stations, vehicle garages and workshops, etc.

Commercial activities shaded blue on the plan drawing were allocated 160.65 Acres (25.87 percent) of the planning area.

Plot Access

Commercial areas are served by access roads with a road reserve of 20 meters for heavy commercial and 15 metres for average commercial centres. Commercial plots were further provided with a service lane of 6 meters to aid in loading and offloading of merchandise. Service lanes can also provide space for garbage bins, fire protection lines in case of a fire break out in these areas, water lines, telephone lines, electric lines and other utility products that are deemed necessary for the area. Other development parameters for commercial developments are detailed in table 40.

Table 40: Development parameters for commercial developments

<i>Parameter</i>	<i>Description</i>
<i>Plot Area (Sq. M)</i>	450
<i>Minimum plot width (M)</i>	15
<i>Minimum plot length (M)</i>	30
<i>Maximum plot coverage (%age)</i>	75
<i>Building line</i>	
<i>(a). Front (M) ²</i>	2
<i>(b). Side (M)</i>	1
<i>(c). Rear (M) ³</i>	5

Source: MoLHUD April 2018

7.4.2. Market

Ntungamo MC PDP (2019 – 2029) retained the Matooke market along Mbarara – Kabale highway to pave way for the construction of modern markets as per the PDP proposals. The Matooke market will continue to serve residents in the planning period. The Matooke market was allocated 4.95 Acres (0.80 percent), which will be sufficient for market operations. When funding has been secured, market facility will include space for the construction of the market structures, car park and service yard. The market will also be enclosed by a fence for the protection of occupants and provide space for lockups for butchery, fish mongers, stalls for the sale of fresh produce, fruits and vegetables, space for craftsmen, wood fuel yard and public toilets separated by gender and people with disabilities.

This market will be supplemented by other local market centres which were carefully placed in several neighbourhoods by the Municipality PDP to serve the communities with day-to-day shopping needs and were designed as entertainment centres of the neighbourhoods. These will supplement the facilities offered by the commercial centres to enable convenience and access to basic needs by the residents.

7.4.3. Hotel/MICE

To ably position Ntungamo Municipality to benefit from tourism activities proposed by the Albertine Graben Regional Physical Development Plan, the LPDP reserved land for the establishment of eco-tourism hotels in Cell No. 9, Cell No. 8, and Central areas. The hotels will offer various services such as Tourism Resource and Information Centre, Information and Communication Technology (ICT), MICE (Meetings, Incentives, Conferences, and Events) facilities and Resort facilities. The information centre will provide guidelines and information to tourists about the tourism attractions in the Albertine Graben Region. These include among others the scenic view of the rolling hills, bird watching, cultural tourism, Mountain Gorilla tracking, and mountaineering among others.

The proposed hotels/resorts and tourism centres will have facilities such as self-contained apartments for hire and hotels of various grades to suit all types of visitors through Ntungamo town. Hotels were allocated 14.44 Acres (2.33 percent) of the planning area. The proposed concept is as illustrated in Fig. 60.

² *The frontage of 2 m is for a covered walkway or canopy and has to continue to the end of the boundary. This is applicable to all commercial developments.*

³ *The rear building line for the commercial plots of 5 m is to leave sufficient space for septic tank, soak pit, car parking, and any rear services.*

Fig. 60: Tourism Centre/Resort/Hotels/Apartments



Proposed Concept for Resorts/MICE and Tourism Hotels



Proposed Concept for Serviced apartments

7.4.4. Institutional developments

The institutions that were included in the LPDP include St. Mary's High School, Jak Jex Primary School, Maato Moslem School, Maato Mosque, Trinity Vocation School, All Saints Church, Ntungamo, St. Charles Sec School, Mother care Sec School, Ntungamo Catholic Church, Ntungamo Primary School, Ntungamo Full Gospel Church, Raptech Vocational Institute and Health Centre.

Health Institutions

No new health facilities were proposed by the LPDP. The planning area will continue to use the existing health facilities indicated in Ntungamo Municipality PDP (2019 – 2029) since they are within the recommended of 5 km walking distance by the Ministry of Health. Health institutional areas are shaded yellow on the plan drawing and occupy 2.34 Acres (0.38 percent) of the planning area.

Religious Facilities

The existing places of worship were maintained by the LPDP. Further analysis revealed that the available religious facilities are sufficient to meet the religious needs of the population for the planning period 2019 – 2029. They include among others Maato Mosque, All Saints Church, Ntungamo, Ntungamo Catholic Church, and Ntungamo Full Gospel Church. They occupy 3.27 Acres (0.53 percent) of the planning area.

Educational Institutions

The existing education institutions included St. Mary's High School, Jak Jex Primary School, Maato Moslem School, Trinity Vocation School, St. Charles Sec School, Mother care Sec School, Ntungamo Primary School, and Raptech Vocational Institute. Further analysis revealed that the available education facilities are sufficient to meet the education needs of the population for the planning period. They occupy 26.31 Acres (4.24 percent) of the planning area.

7.4.5. Human Settlement Zones

Residential neighbourhoods were designed to provide living space for town residents the various categories of densities namely low, medium, and high-density settlements. This was in conformity with Ntungamo Municipality Physical Development Plan (2019 – 2029) and the situation analysis. It is worth noting that demand for residential plots will continue to grow due to increased population growth as a result of natural population increase and rural urban migrations. Thus all residential developments are subject to the Physical planning regulations. Rectangular plots were taken as a guideline for designing residential layouts to make best use of urban land; ease infrastructure provision and minimize infrastructure costs per plot. The shorter side should be along the access road. The buildings will be designed with setback distances from plot boundaries for privacy, amenity, health, safety and development coverage requirement.

Section 28 of the Public Health (Buildings) Rules SI No. 281 states that:

“No building shall be erected on any plot which has no proper and sufficient access to a road or road reserve, such road or road reserve not being a sanitary lane or passage”.

This was adhered to and every residential plot was provided with direct vehicular access to a road as required. It is also hereby recommended that all wall fences within these residential areas should be live fences or be to a maximum of 2 metres high whereby 1 metre will be made of brick wall while the other will be made of metal grill to allow air circulation within the premises. Residential developments were categorised as follows:

For beauty enhancement, residential areas may be allowed to maximum height of 2 floors to effectively utilise the available space (See Fig. 61) and should be offset from the road as required by the National Physical Planning Standards and Guidelines (See Fig. 62).

Fig. 61: High rise concepts for residential developments



Proposed concepts for urban housing estates

Fig. 62: Setback for residential developments



Illustrations for set backs

High Density Areas

Standard plot sizes within this category range from 450 Sq. M (15 x 30 m) to 600 Sq. M (20 x 30 m). These were proposed near commercial developments and recreation establishments since they provide accommodation mainly for workers in these establishments. These were proposed in areas of Central, Cell 9, and around Jaka Jex Primary School areas. They are represented by dark brown colour and cover 123.35 Acres, which is 19.87 percent of the planning area.

The proposed frontage of such plots is 15 – 20 meters while the depth is 30 Meters. For aesthetic purposes, such developments could be allowed up to buildings heights of maximum 3 floors. The proposed concept for high-density residential developments is as illustrated in Fig. 63.

Fig. 63: Concepts for High Density/Affordable Housing Residential Developments



2 Bedroom Affordable House Concepts

The National Standards and Guidelines by the Ministry of Lands, Housing and Urban Development (2008) details of the proposed plot sizes as indicated in table 41.

Table 41: Plot sizes and Plot Coverage for residential uses

Parameter	Density		
	Low	Medium	High
Plot Area (Sq. M)	750 - 1,000	600 – 750	450 – 600
Minimum plot width (M)	25	20	15
Minimum plot length (M)	40	30	30
Maximum plot coverage (%age)	20	40	50
Building line			
(a). Front (M)	8	6	3
(b). Side (M)	3	2	2
(c). Rear (M)	12	8	2
(d) Servants Quarters (M)	3	3	-
Onsite parking pace	2	1	-
Minimum width for Vehicular Access (M)	3	3	-
Corner Radii (M)	3	3	-
Parameters for vertical buildings (units) ⁴	2	3	8

Source: M/s Realtek Consult, June 2019

⁴ All residential buildings of more than 2 (two) floors should have an additional setback from boundaries of 1 – 5 m per additional floor

7.4.6. Mixed Agriculture and Residential Zones

These were proposed in Nyabubare, Kyanju I and II, Cell No. 8 and Kikoni along Ntungamo – Rukungiri road. These were allocated 216.88 Acres (34.93 percent) of the planning area.

7.4.7. Social Facilities

The Municipality LPDP reserved space for several social facilities including the Markets, Community Centres, Police Station, and Recreational Centres.

Police Posts

Space was reserved in Kikoni area for the establishment of a Police Post to improve on the security issues of the area. Since the LPDP's emphasis is facilitating and attracting tourists to Ntungamo town, safety of residents and visitors should be paramount, thus, the need for a police post in Kikoni area. Land measuring 0.4 Ha (1 Acre) was reserved for the noble cause.

Recreation, Public Open Spaces and Green Areas

Recreation facilities are very crucial for urban centres of which Ntungamo Municipality is no exception. As the saying goes, "**A Health Mind is a Health Body**". Surveys revealed lack of fully fledged and developed recreation facilities for residents to exercise themselves and assist the youth in developing and nurturing their skills and talents, thus the need for such facilities in the LPDP. Permitted facilities include Eco-tourism and Botanical gardens, swimming pools, playgrounds, sports centres, Public recreational parks and open spaces, and outdoor recreation and landscaped areas (See Fig. 64). These facilities should have facilities that cater for the Person's with Disabilities.

High standards of accessibility related to the use of these facilities are essential. For example, local amenity areas and playgrounds require emphasis on access for pedestrians and cyclists. Sports centres serving a wider catchment area will require accessibility by public transport and private transport users. Recreation areas were allocated 16.04 Acres (2.58 percent) of the area covered by the LPDP.

The proposed recreation parks include but not limited to:

- a) provide for active and passive recreation needs of residents and protection of the Municipality's bountiful natural resources as well as protect natural and aesthetic qualities of the area for the general welfare of the community;
- b) provide for, protect and improve on the provision, attractiveness, accessibility and amenity value of public open space and amenity areas; and
- c) preserve and provide for recreation amenities for urban and rural populations subject to strict development controls. Only community facilities and other recreational uses will be considered and encouraged by the municipality

7.4.8. Civic Areas

The civic developments identified in the area covered by the Municipality LPDP include the Uganda Prison, Ntungamo District Headquarters, Ntungamo Municipal Council Offices, Central Division offices, Western Division offices, and Magistrates Court were maintained by the LPDP. They occupy 28.61 Acres (4.61 percent) of the area covered by the LPDP.

7.4.9. Environmental Areas

Activities that were catered for under the environmental uses include recreational areas, protection and conservation areas and green belts within the planning area.

Fig. 64: Proposed recreational facilities



Recreational Parks



Proposed Botanical gardens



Proposed Fitness Centers and Facilities



7.4.10. Roads

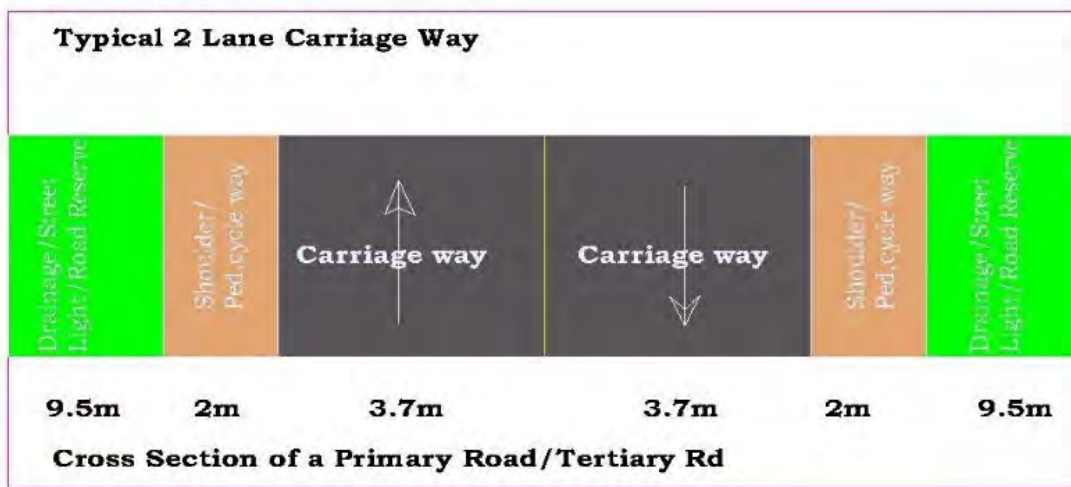
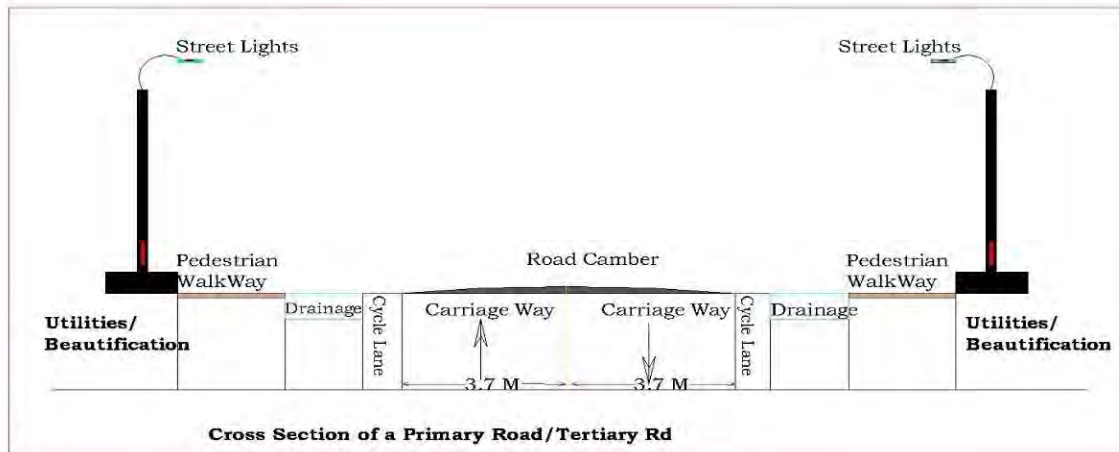
Proposals to improve access took an analytical course of the existing access roads. Existing roads were maintained and improvements proposed to enhance safety and alignment of utility services that shall be placed along these roads and adherence to the required planning standards (See Table 42) while new ones were proposed to provide access to public utilities, commercial and residential zones proposed in the LPDP. It was proposed that all roads be planted with trees to create tree-lined avenues in the planning area to increase tree cover and improve aesthetics of the town (See Fig. 66). All proposed access roads including realignment and other infrastructure facilities in the LPDP cover 9.29 Acres, equivalent to 2.32 percent of the planning area.

Primary Roads

These include Mbarara – Kabale highway, Ntungamo – Rukungiri highway and Mirama Hill road. Improvements are proposed to achieve a road reserve width of 30 M with a dual carriageway of 7 M each (i.e. 7 M carriageway for vehicles travelling from Mbarara City to Kabale and Rukungiri town while another 7 M carriageway will accommodate vehicles travelling to Mbarara City from Kabale and Rukungiri towns). The road will be separated by an island of 2 M (See Fig. 65). Each carriageway was provided with drive-off lanes of 6 M and parking bays on each side of the highway to provide park and drive facilities for shoppers. This is to ensure that traffic flow along the highway is not interrupted.

The main function of the primary roads is to receive traffic from other roads and direct it, with minimum traffic delays. The traffic on the primary distributors have absolute right of way, is not interrupted by other accesses, and have a maximum speed of 100 km/hour.

Fig. 65: Cross sectional elements of Proposed Roads



Please Note that Road Designs will be determined by the available land

Fig. 66: Proposed Concept of Tree lined avenues



Tree lined avenues

Secondary Distributors

These were provided with a road reserve width of 20 m with design speeds of 50 km/hour. The function of secondary distributors is to direct traffic from primary distributors to a particular area/neighbourhoods.

Local Distributors

These were provided a road reserve width of 15 m with maximum design speeds of 30 km/hour. Their main function is to guide traffic from the secondary distributors to residential areas, commercial and social facilities. New roads were proposed to supplement secondary roads by improving accessibility to all parts of the planning area. Modifications were made on access roads with sharp corners to improve on safety and provide proper alignment for utility services that ought to move alongside these roads.

New access roads were also proposed to improve accessibility to all parts of the planning area. Existing footpaths that were frequently used by communities and link villages to existing roads were proposed for upgrading into motorable access roads.

Service lanes were proposed within the commercial zone of the town to ease loading, offloading and provision of services/utilities.

Pedestrian walkway and cycle lanes

These were designed with a width of 3 m to ease connectivity and reduce the walking distance. These provide options for a greener and cheaper means of transport. The design of these lanes is aimed at discouraging motorized traffic within the planning area.

Road reserve width and infrastructure services

The primary function for a road reserve is to provide space for the provision of infrastructure facilities and services such as drainage channels, electricity lines, sewer and communication lines and future expansion of roads. The drainage system removes surface water runoff from all roads and directs it to locations where it is planned to be received.

Note: Availability of an efficient road network is one of the most important prerequisite for emergence and maintenance of the town's economic prosperity. This is because the population, finished goods and services can move freely, safely and cheaply from one part of the town to another and the population's vital forces are stimulated to maximum efficiency.

Table 42: Proposed road types and sizes.

Road type	Road reserve width (m)	Carriage way (m)
Primary road (Mbarara – Kabale highway and Ntungamo – Rukungiri highway)	30	26
Secondary road	20	10
Local distributors	20	10
Access residential	15	8
Access commercial	20	10
Cul-de- sacs	10	5
Service lane	6	6
Foot paths/ pedestrian precincts	2	2

Source: MoLHUD Standards and Guidelines, 2008

7.4.11. Solid Waste Management

Study findings on solid waste management practices revealed the presence of a waste disposal site for the municipality along Mbarara – Kabale highway, which will serve the planning area for the planning period up to 2030. The plan therefore proposes a number of communal waste collection centres to be located appropriately to ensure systematic solid waste management. The proposed waste management system is waste recycling to obtain farmyard manure from

the biodegradable wastes to support agriculture within the rural hinterland of the municipality and generate income for those involved in waste recycling. It is proposed that waste management practices should:

- a) be managed at household level;
- b) encourage waste separation at point of generation using 3 or 4 containers/bins of different colours. This would ensure that biodegradable wastes are processed into manure, to facilitate recycling and reuse of the wastes;
- c) locate garbage collection centres appropriately to ensure systematic solid waste management in the municipality;
- d) ensure that garbage collectors adhere to any set timetable to avoid piling of wastes around the collection points;
- e) ensure that active partnerships are formed between Ntungamo Municipal Council and well-wishers or private investors to ensure that wastes are collected accordingly; and
- f) ensure that burning of plastics is restricted by the municipal council. This will be reinforced by the inclusion of LC 1 Chairpersons who will also ensure that open dumping is restricted within their areas of jurisdiction.

7.4.12. Proposed Utilities

Water Supply

Safe and pathogen free water is very fundamental in peoples' livelihoods. It was important that the plan incorporated the water supply and distribution lines to follow the existing and proposed roads in road reserves. This is to supplement the existing protected springs, and boreholes that have a stable and steady supply throughout the year and rainwater harvesting facilities proposed for institutional and individual developments.

Power Supply

The existing power lines along the existing roads and the proposed power extensions shall follow the proposed roads. Additionally, other alternative renewable sources of energy such as use of solar power and biogas were proposed for institutions such as schools, hospitals and health facilities and hotels.

Sewerage Lagoons/Treatment Plant

The LPDP recommends that the existing sewerage treatment plant near the solid waste management site continue to serve the municipality, supported by the use of septic tanks in the short term while in the long term, the whole municipality should be connected to the central sewer line.

CHAPTER EIGHT: DEVELOPMENT SPECIFICATIONS

A set of development specifications and guidelines were developed in close liaison with Ntungamo Municipal Council to assist the technical team in the effective implementation of the Local Physical Development Plan (2019 – 2024) for Cell No. 9, Cell No. 8, Kyanju I, Kyanju II and Nyabubare Areas. They include the following:

8.1. ON STREET PARKING REQUIREMENTS

It is a common practice to park vehicles on-streets. This is acceptable when the street is wide enough and has less traffic. Otherwise, on-street parking should be discouraged because it reduces traffic flow causing traffic jams and accidents. For effective on-street parking, it is advised that the council clearly marks out parking spaces on the carriage way in the colour specified by the municipal engineer.

8.2. OFF-STREET PARKING REQUIREMENTS

Public parking spaces were provided for within the proposed residential areas, commercial zones and social facilities, recreation and sports areas. The following guidelines generated by M/S Realtek Consult shall guide the Municipality in solving the challenge of parking.

8.2.1. Off-Street Parking Guidelines and Standards

- i). Depending on the land use, parking for delivery/service vehicles and courier vehicles was also provided. For mixed developments, the number of car parking spaces should be calculated on the basis of each use separately e.g. shops with housing above would be calculated on the basis of number of dwellings and gross floor area. Calculations should be rounded up to the nearest whole number e.g. if the calculation determines that 2.3 spaces are required, then 3 spaces would be provided;
- ii). Off-street parking should be designed, constructed and maintained to provide safe, convenient vehicle parking and pedestrian movement to and from parked vehicles;
- iii). Design and construction of all required and or provided parking stalls, access aisles, driveways, paving, curbing, wheel stops, drainage and marking shall be in accordance with guidelines provided by the local authority and the ministry responsible for transport; and
- iv). Standard stalls shall measure 5.4 m in Length and 2.5 m in Width. Access aisles between rows of stalls should have a minimum width, free of any obstructions, as indicated in table 43.

Table 43: Minimum width of Access Aisles

Angle of parking	Width of aisle (m): 1 way traffic double loaded	Width of aisle (m): 2-way traffic double loaded	Width of aisle (m): one way traffic single loaded
90	7	7.0	7.0
60	3.5	5.8	3.8
45	2.8	5.6	3.3
Parallel	3.04	6.09	3.04

Source: National Physical Planning Standards and Guidelines (2011)

8.2.2. Parking Requirements for Residential Areas

A minimum of two parking spaces for each low density plot was provided for and one car parking space for a medium density plot. For high-density plots, no onsite parking spaces were provided in preference for a common parking lot within the neighbourhood.

8.2.3. Parking Requirements for Commercial Developments

Four parking spaces for every 100 sq. m of floor area

8.2.4. Hotels and motels

The LPDP provided for one car parking lot for every three bedrooms of the hotel and one parking space for every three managerial staff. For hotels that will have bars, restaurants and space for outdoor activities such as meetings or hosting functions, the parking spaces required for these functions shall be assessed separately by the Municipality and summed up before an approval for such a facility is granted.

8.2.5. Parking Requirements for Restaurants and club houses

One car lot for every sixth seat of a patron.

8.2.6. Parking Requirements for Community Centre and Places of Worship

One car parking space for every 10 people.

8.3. GUIDELINES FOR THE PHYSICALLY HANDICAPPED PARKING STALLS

- a) All such parking stalls reserved for the physically handicapped drivers should be clearly marked and designated with appropriate signage;
- b) Stalls should be located as close as possible to ramps, walkways, entrances, and elevators;
- c) Where feasible, such stalls should be located so that the physically handicapped drivers are not compelled to walk or wheel across main traffic lanes and or behind parked cars to reach ramps, walkways, entrances and elevators;
- d) Such parking spaces shall be located as close as possible to the nearest accessible ramp, walkway, and building entrance on an accessible route so that physically handicapped persons shall not be compelled to wheel or walk behind parked cars to reach the nearest accessible ramp, walkway, and building entrance;
- e) Such parking space shall be not less than 2.4 m wide with a crosshatched, painted access aisle not less than 2.4 m wide if it is a van-accessible handicapped parking space, or not less than 3 m wide with an adjacent crosshatched, painted access aisle not less than 1.5 m wide if a handicapped parking space;
- f) All handicapped accessible parking spaces shall be clearly designated with signs situated approximately 1.5 m high;
- g) Such parking shall display international symbols/ signs of access with words "Handicapped Parking" and "No Trespassing." Accessible spaces for vans shall also bear the words "Van-Accessible"; and
- h) Minimum parking spaces recommended for the physically handicapped drivers in all public parking areas are indicated in table 44.

Table 44: Recommended parking spaces for the physically handicapped drivers

No. of Parking spaces	Minimum No. of handicapped parking spaces
≥25	1
26 – 50	2
51 – 75	3
76 – 100	4
101 – 150	5
151 – 200	6
201 – 300	7
301 – 400	8
401 – 500	9
501 – 1,000	2% of total parking spaces
1,000 plus	20 spaces + 1 for every 100 spaces over 1,000

Source: M/s Realtek Consult, April 2019

8.4. GUIDELINES FOR BICYCLE PARKING STALLS

To ably provide ample parking space for bicycles – which is one of the forms of transport in Ntungamo Municipality, it was necessary to understand the basic dimensions of the bicycle. The dimensions are Length: 1.7 – 1.9 m; Width: 0.65 m; Height: 1.25 – 1.5 m. Therefore, to offer comfortable parking, the parking space should be 2 m long and 0.45 m wide with a side clearance of 0.75 m.

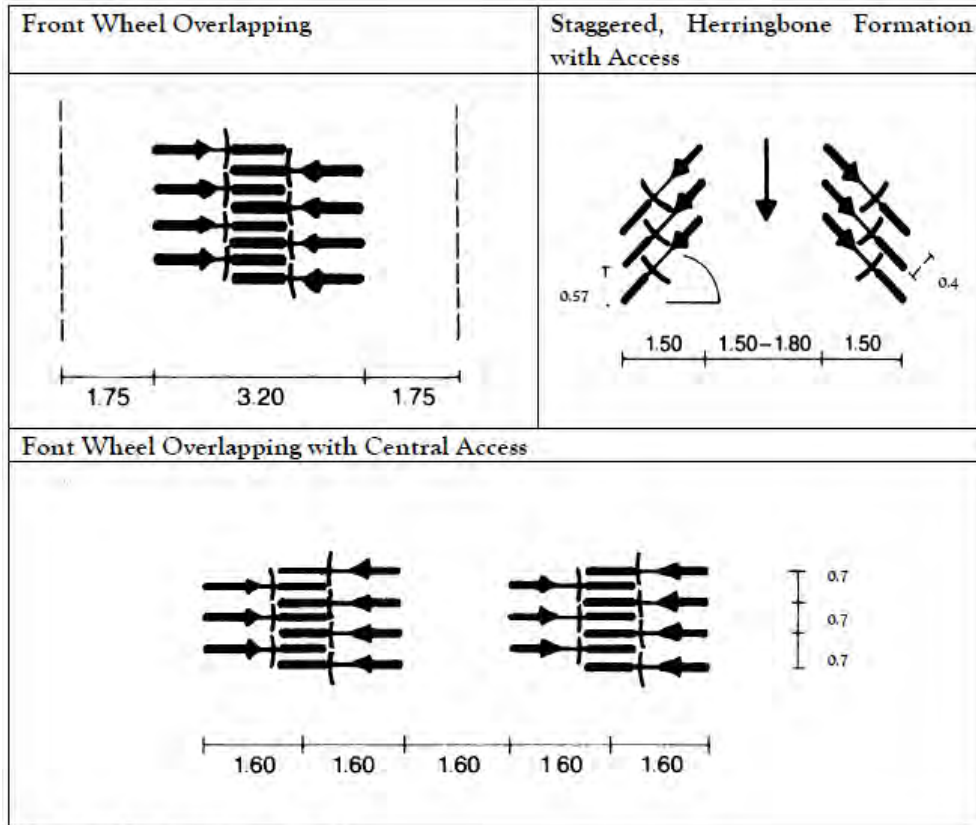
Bicycle parking is provided in form of (a) double rows with overlapping front wheels, (b) staggered, and (c) herringbone formation with access in the middle (See Fig. 67). Cycle stands must give steady support, even when loading the bike. Locking the bike should be possible using any acceptable system, securing the front wheel and the frame to the stand. Installation design should be clear and user friendly: close to the destination, easy to find and approach. However, for long term parking, lighting, and roofing should be considered with supervision. This is proposed for market places, places of worship such as churches and mosques, schools and recreational areas including playgrounds and gardens. Table 45 provides details of guidelines to be followed by developers within the proposed LPDP.

Table 45: Recommended Bicycle Parking Guidelines

User Activity	Parking Space
Residential Apartments	1 per 30 sq. m of total living area
Visitors to Apartments	1 per 200 sq. m of total living area
Student residential halls	1 per bed
Secondary schools	0.7 per student
Colleges for further education	0.5 per student place
Libraries	1 per 40 sq. m
Places of work	0.3 per employee
Shopping centres	1 per 80 sq. m sales area
Restaurants	1 per 7 seats
Sports Arena, Halls, Swimming Pools	0.5 per clothes locker
Other gathering places	1 per 7 visitor places

Source: Ernst and Peter Neufert – Architects Data 3rd Edition, 2000

Fig. 67: Recommended Bicycle Parking Guidelines



Source: Ernst and Peter Neufert – Architects Data 3rd Edition, 2000

NB: The above dimensions are in Metres

8.5. KEY ISSUES DURING DEVELOPMENT APPROVAL

- i) For every low density residential plot, setbacks should be increased by 10 to 20 percent;
- ii) Fence or boundary walls and hedges should be sited on the property line on the front of the plot boundary;
- iii) Gates on any fence or boundary walls should open inwards and not outwards on the access road;
- iv) Boundary walls facing the road should not exceed a height of 150 cm (1.5 M high) and no garage ramp should encroach on the road reserve;
- v) All buildings with more than four floors must have provision for an elevator;
- vi) All public buildings must have ramps to facilitate PWDs accessibility and mobility; and
- vii) No residential developments should have direct access on primary and secondary roads.

PART THREE

CHAPTER NINE: STRATEGIC INTERVENTIONS AND INVESTMENT PRIORITIES

The strategic interventions are discussed below:

9.1. IMPROVING ACCESSIBILITY AND CONNECTIVITY

The following interventions are proposed to improve accessibility within the municipality and ease connectivity of the municipality to the neighbouring Ntungamo Sub County, Ruhama County and within Ntungamo district.

The proposed interventions include:

- a) Widening of the existing roads and footpaths to improve accessibility;
- b) Rehabilitation and regular maintenance of access roads including provision of drainage channels and application of murrum, and
- c) Surveying, pegging, and opening up the proposed access roads. This will ease their identification and restrict developers from constructing in these road reserves.

Priority road projects and Associated Infrastructure include:

- | | |
|--|---------------------------------|
| ✓ Kajinya – Tindibakira road Phase I (0.9 Km); | ✓ Garage street road (1.5 km); |
| ✓ Binyerere road (1 km) | ✓ Mbaine road (0.5 km); |
| ✓ Kajinya - Tindibakira road (1.0 km); | ✓ Kankore – Mukungu road (2 km) |
| ✓ Banyagi road (1 km); | ✓ Kanuma – Karyeiya road (2 km) |

Proposed roads include:

Obushenda road (Northern Bypass) 9.368 km: The proposed road starts from Kakyongora swamp through Kyanju II, Kabahambi and connect Omuri Ishatu trading centre to Muyumba near Kikoni Secondary School and joins Kabale – Mbarara highway adjacent to Mareju Road to Rukindo growth centre.

Southern Bypass (Rwabukwitsi Road of 3.740 km and Kakeito Road of 2.780 Km: The proposed road starts from Nyakihanga growth centre through Mpaama, joins Kanuuma road in Rwencwera, and later joins Mirama Hill road in Kyamatte. The road joins Nyakina and Rukindo growth centre.

9.2. HEALTH FACILITIES

The proposed health facilities as in indicated on the Physical Development Plan should be constructed as need arises.

9.3. EDUCATIONAL FACILITIES

The existing educational facilities are to be maintained and the proposed ones constructed in areas indicated on the PDP. Also rehabilitation and building densification of the existing facilities should be encouraged to increase their capacity.

9.4. DRAINAGE MASTER PLAN

Storm water is undirected because majority of roads lack roadside drains and culverts. Where the drains exist, they are in poor condition and often clogged by solids, which at times cause flooding whenever it rains. Thus, the plan recommends for the preparation of a Comprehensive Drainage Master Plan for the Municipality.

9.5. LOCAL ECONOMIC DEVELOPMENT

The proposed projects include:

- a) Construction of a storied taxi park facility serviced with rentable space for offices, shops, restaurants, fast foods/ take-away facilities, refreshment points, parcel delivery and pick-up points, stores for passengers' luggage, saloons, and express shopping facilities;
- b) Reconstruction of the central market to suit the municipality status; and
- c) Renovation and rehabilitation of the taxi park and the lockup shops.

9.6. ENVIRONMENT MANAGEMENT

Proposed activities include:

- a) Establishment of Garbage Processing Plant for the Municipality
- b) Beautification and Greening of Ntungamo Municipality. The proposed interventions include: tree planting, creation of open spaces and flower gardens in the municipality; and
- c) Installation of Street lights along Kabale – Mbarara road, Mbaine road, Kategaya road and Singahache road and
- d) Construction of a Central Sewer System for the municipality.

9.7. INDICATIVE IMPLEMENTATION COSTS FOR NTUNGAMO MUNICIPALITY PDP

The implementation of this plan is a comprehensive venture that requires huge investments for it to be achieved in the tenure of 10 years starting 2020. Costing is a factor of events that run through the entire work plan for its implementation, and is based on indicative cost aspects such as surveying works, roads works (opening of the roads, periodic maintenance, upgrading and provision of drainage channels), provision of services and utilities (water, electricity, ICT – voice and data services).

Implementation of projects depends upon the resources available to the municipal authority. Therefore, a resource analysis for the municipal authority is necessary if a realistic implementation strategy is to be identified. The Central Government funds are meant for salaries, School Facilitation Grants (SFG) for school buildings constructions, furniture, and Universal Primary Education (UPE) while Primary Health Care (PHC) funds are for immunization and drugs. The Donor Grants are received for specific development projects.

Items included in the matrix include sensitization and awareness creation among stakeholders, evaluation and assessment of affected properties and their compensation where necessary, surveying of roads, public utilities and the entire area where planning was done and thereafter opening up roads and installation of utility lines such as water, power and telephone lines (See table 46).

Table 46: Indicative Cost for Implementing Municipality Physical Development Plan (2019 – 2029)

Activity	Indicative Costs (UGX)	Source of Funds
Community sensitisation to increase awareness and involvement in the planning process. This will involve holding at least 1 meeting per quarter for 10 years.	40,000,000	Local Revenue
Land expropriation (acquisition of private property for public use by Government or Local Authority)	500,000,000	Local Revenue, Government's Capitalisation and Equalisation Grants, Public Private Partnerships (PPPs), Development Partners
Acquisition of 3 Hectares (7.413 Acres) of land for utility and service areas such as cemetery, sewerage lagoons, and Garbage Processing Plant estimated at UGX 120 Million per Acre of titled land. Phased as per NMC Priorities and availability of funds.	889,560,000	
Identification, surveying and pegging of the Environmentally protected and fragile areas such as wetlands, forests, hill tops and gazetted areas within the sub county	215,000,000	
Surveying and pegging of road reserves for existing access roads.	50,000,000	
Surveying and pegging of road reserves for proposed access roads.	50,000,000	
Surveying and valuation of the affected property	75,000,000	
Opening up of 16.429 km of access roads from track/open bush to earth road to improve access to various areas of the municipality estimated at UGX 900,000,000 per km	14,786,100,000	
Preparation of 6 Ward Local Area Physical Development Plans	583,000,000	
Preparation of the Drainage Master Plan for the Municipality	100,000,000	USMID
Periodic maintenance of 122 km existing access roads for 10 years	10,480,000,000	URF, Local Revenue, PPPs
De-silting of the existing drainage channels along roads and construction of new lined channels	375,000,000	Local Revenue, Government's Capitalisation Grants
Provision of water infrastructure such as water tanks/ reservoirs, water supply pipes, and water pump stations	350,000,000	Local Revenue, PPPs, Development Partners, and NW&SC
Construction of sanitation facilities such as Public Toilets in the various growth centres at UGX 30 Million per facility	180,000,000	
Establishment of Garbage Processing Plant	1,400,000,000	PPPs, USMID
Construction of a Central Sewer System for the municipality	2,400,000,000	PPPs, USMID
Connecting power to developments in the municipality. Power Distribution including poles, wiring, labour etc. at UGX 200 Million per Kilometre	3,000,000,000	UETCL, UEDCL, Umeme; Public Private Partnerships (PPPs);
Power Substation estimated at UGX 112,500,000 per MVA	562,500,000	

Activity	Indicative Costs (UGX)	Source of Funds
Tarmacking and upgrading of selected roads in the municipality (Kajinya – Tindibakira road Phase I (0.9 Km), Binyerere road (1km) and Kajinya - Tindibakira road(1.0km), Banyagi road (1 km) and Garage street road (1.5 km), Mbaine road (0.5 km); Kankore – Mukungu road (2 km) and Kanuma – Karyija road (2 km)	8,800,000,000	USMID
Tarmacking and upgrading of Kajinya - Tindibakira road (0.9 Km)	2,420,000,000	USMID
Beautification and Greening of Ntungamo Municipality including installation of street lights along Mbaine road, Kategaya road and Singahache road	1,200,000,000	USMID
Installation of Street lights along Kabale – Mbarara road (17 solar panels)	207,093,462	USMID
Redevelopment of Central Market in Cell 5, Muko ward, Western Division	1,000,000,000	USMID
Construction of the Municipality Bus Park and Redevelopment of the Municipality Taxi Park with lockup shops in Cell 3, Park ward, Eastern Division	4,756,911,660	USMID
Renovation and upgrading of Ntungamo HC III to Hospital	1,800,000,000	UgIFT
Construction of three HC III at the proposed site for Eastern Division Headquarters, Kabingo HC III, and Rukindo HC III	1,450,000,000	UgIFT
Mid-term Review of the plan	150,000,000	Local Revenue, USMID
Monitoring and Evaluation of the plan Implementation process by NMC staff including the Technical Planning Committee personnel throughout the implementation period.	280,000,000	Local Revenue
Review of the plan	380,000,000	Local Revenue, USMID
Total	58,480,165,122	

9.8. FUNDING

To achieve the stated plan objectives, financial commitment from Ntungamo MC is required for effective plan implementation. Possible sources of funds for plan implementation may include but not limited to the following;

- i). Local revenue, sponsorship by NGOs, CBOs or other donor agencies and development partners;
- ii). Twinning programs by the municipal council with urban councils from abroad;
- iii). Lobbying for funds through community fundraising;
- iv). The municipal council can also seek funds from Central Government; and
- v). the municipal council can employ labour based means of implementing projects from the community members especially when opening up roads to reduce on costs of implementing the plan.

CHAPTER TEN: PLAN IMPLEMENTATION STRATEGIES AND GUIDELINES

The Local Physical Development Plan (2019 – 2024) for Ntungamo Municipality, is a specific plan proposal for the planning area during the planning period. To realize the intended benefits for the planning period, the plan has to be implemented. A strategy for the implementation is therefore, needed to guide the implementation exercise. The implementation of the plan will involve both the public and private sector, thus, need for interdependence of both the public and private sector agencies in the implementation process of the plan. It is therefore, the duty of the public sector to provide an enabling environment for active participation of the private sector.

The role of Non-Government Organizations as well as donor funding, will provide important starting points for successful plan implementation. The Municipality should make efforts to attract donors while other funds can be sourced from local revenue, central government grants, donations and sponsorships. Implementation will begin when the Municipality LPDP is adopted by Ntungamo Municipality Physical Planning Committee and approved by Ntungamo Municipal Council, as per the requirements stated in Section 25(3), of the Physical Planning Act (2010).

10.1. INSTITUTIONAL FRAMEWORK

The various institutions with a high stake in the implementation of Ntungamo Municipality PDP include MoLHUD, MoLG, Ntungamo District Land Board, the Physical Planning Department, Ntungamo District Administration and Council, Ntungamo Municipality Administration, Area Land Committees, Non-Government Organizations, NEMA and the National Planning Authority. Their duties, powers and obligations can be applied in a PDP context as spelt out in Ntungamo Municipality Physical Development Plan (2019 – 2029) Report and the respective legal documents and Acts.

10.2. LEGAL FRAMEWORK

The legal framework provides a set of laws that are of specific relevance to detailed planning and physical planning as a whole. The relevant policies, laws and regulations are discussed in the Situation Analysis Report, submitted as Volume I of this Report.

A clear understanding of these laws is very important for a smooth implementation exercise. It is also advised that the municipality undertakes capacity building for the technical staff to properly understand these laws as this will make their work a lot easier. A step should also be taken further to sensitize the local community about the laws and other relevant issues such as community members' responsibility in plan implementation, land acquisition, compensation and development control.

10.3. CAPACITY ANALYSIS

Human Resource Analysis for Ntungamo Municipal Council reveals inadequate technical staffing. In the Engineering department, which is responsible for supervision of projects, there is only one Engineer, one assistant Engineer, and one Physical Planner. Given the current budgetary constraints, not all proposals in this PDP can or should be implemented immediately or together. Certain priorities do exist which if developed can result into critical mass effect which would accelerate the attainment of the desired vision of the municipality. As a result of the above, the implementation strategies for this plan aim at identification of these priorities followed by actual implementation. Given the fact that stakeholder participation was a key factor in the preparation of the plan, identification of the priorities was done in accordance with their priorities.

10.4. IMPLEMENTATION STRATEGIES FOR THE PHYSICAL DEVELOPMENT PLAN

Implementation of the plan plays a very vital part in the physical planning process. The success of a physical development plan largely depends on the level at which it has been implemented. Below is a description of the implementation measures that can be adopted by Ntungamo Municipal Council during project implementation. Effective programming for implementation of the proposed PDP is very vital, as a plan without a good implementation strategy is bound to fail, however realistic it may be.

10.4.1. Phasing

Phasing is an integral and vital part of land use proposals put forward to guide the development of the planning area. To enable essential services and communication network to be developed strategically, economically and in an orderly manner, effective coordination of service providers is essential. This report suggests adoption of phased development options during project implementation over a period of 10 calendar years to achieve the desired objectives. Thus, the proposals were grouped into three development phases namely short term, medium term and long term as indicated in table 47. Phasing of development proposals is the most viable alternative as no wholesale development may be possible at once.

Table 47: Implementation Development options

<i>Phase</i>	<i>Time frame</i>
<i>Phase I: Short term</i>	<i>2019 to 2023</i>
<i>Phase II: Medium term</i>	<i>2024 to 2026</i>
<i>Phase III: Long term</i>	<i>2027 to 2029</i>

Through phasing of activities, it becomes easier to assess the performance of the program over a shorter or longer period of time without causing detriment to the progress of work. This therefore, calls for use of economical approaches and techniques during the execution of the plan.

10.4.2. Stakeholder Involvement

The interdependence of public and private sector agencies in plan implementation process needs proper appraisal and assessment not only in economic aspects, but also in the social and environmental aspects since implementation of physical development plans greatly depends on the participation of the public and availability of private sector investment funds. It is therefore, necessary to form a realistic assessment of the above factors in establishing a plan implementation strategy.

10.4.3. Sensitization and Plan popularization

Mass education and sensitization of the public about their roles and responsibilities during plan implementation is the most critical activity. Plan popularization started right from plan generation stage (problem identification) through to the implementation stage. This involved organizing public meetings, seminars, workshops, and radio talk shows while disseminating relevant information to the various stakeholders regarding physical planning and their responsibilities during plan implementation. Plan popularization is essential in making people understand and realize the benefits of planning to enhance ownership, acceptability and

sustainability of the plan. Non-government Organizations should provide a substantial input in the process of sensitizing masses.

10.4.4. Surveying, Property Valuation, and Land Acquisition.

The plan is laid out to ensure that much of the existing permanent structures are not demolished and the surveyed plots are not altered. However, where there was revision in land use, plots changed to match plot sizes within the proposed land uses. Surveying and pegging of proposed roads and determination of value for compensation and expropriation of such lands should be undertaken immediately. This will pave way for opening up of roads which will in turn encourage development in such areas. Land for public use should be acquired in accordance with the law governing compulsory acquisition of land in Uganda.

10.4.5. Road Construction

Roads must be opened up immediately to encourage orderly and organized developments in areas by increasing accessibility. Ntungamo Municipal Council has the duty to open up and/or widen roads as shown on the plan. The urban authority may delegate powers through permits to any persons desirous of constructing or widening roads provided such persons are willing to accept liability and responsibility that will by law fall on the urban authority. It is the duty of the municipality to impose various conditions on persons desirous of constructing roads.

Given the financial limitations among others, the municipality may not be able to open up all proposed roads in the planning period. Therefore, further prioritization of these projects is essential. The consultant (M/s Realtek Consult) suggest that after major roads have been opened up, an inside to outward approach be adopted in the development of the central area.

10.4.6. Actors in the Implementation Process

The actors involved in plan implementation process include but are not limited to:

- | | |
|--------------------------------|--|
| a) The Central Government, | h) Private Sector Individuals and Organisations, |
| b) Government MDAs, | i) Community Based Organizations (CBOs), |
| c) Ntungamo DLG, | j) Non-Governmental Organizations (NGOs), |
| d) Ntungamo Municipal Council, | k) Civil Society Organizations (CSOs), and |
| e) The Politicians, | l) Opinion leaders |
| f) The Technocrats, | |
| g) The Community, | |

These actors have different roles and responsibilities during plan implementation, for instance; technocrats shall supervise and evaluate the progress of work and make recommendations accordingly. Table 48 gives a summary of the plan implementation strategy for Ntungamo Municipality Physical Development Plan (2019 – 2029).

Table 48: Summary of the Implementation Strategy

S/N	Activity	Phase	Actors/ Participants
1	Stakeholder mobilisation, sensitisation and plan popularization	Short Term	Ntungamo MC, Technocrats, CBOs, NGOs and Development Partners.
	Land expropriation	Short Term	NMC and the Communities
2	Property valuation and surveying	Short Term	Ntungamo MC
	Setting the alignment of road reserve width of proposed roads.	Short Term	NMC, Surveyors and engineers.
5	Tree Planting along proposed roads	Short term	Ntungamo MC and Community Members
3	Compensation and land acquisition	Medium Term	Ntungamo MC, Central Government
4	Widening of existing roads and opening up of new ones	Medium Term	Ntungamo MC, Ntungamo DLG, Surveyors, Engineers, UNRA, URF, Development Partners
	Construction and placing of storm water drains, water, sewer, telecom and electricity facilities	Continuous	Ntungamo Municipality, Community, Service providers, NGOs.
	Development/extension of health and education facilities/ services	Continuous	NMC, NGOs, general Public and Private sector agencies, Service providers
6	Utility Provision	Continuous	Utility Service providers e.g. UETCL, UEDCL, UMEME and NW&SC, telecom service providers, Internet service providers and UCC.
7	Environmental Impact Assessment	Continuous	NEMA, Ntungamo MC, Private sector
8	Monitoring and Evaluation	Continuous	Ntungamo MC, Ntungamo DLG, CBOs, NGOs, Technocrats, NGOs, Community, Development Partners, and Private Sector
9	Plan review	Long Term	Ntungamo MC, Technocrats, NGOs, Community, Development Partners and Central Government.

Source: M/s Realtek Consult, April 2018

10.4.7. Other Projects.

Emphasis should be put on submission and subsequent approval of site development plans for schools and other facilities to ensure orderly, healthy and safe development.

- a) **Delineation and development of Open Spaces:** Emphasis should be put on the landscape design of such spaces for appropriate furniture pavements and plantings;
- b) **Tree planting:** Acceptable fast growing trees should be planted along roads to create tree lined avenues in the Municipality. Care should be taken to ensure that sustainable trees are planted i.e. trees whose roots and branches and other parts will not interfere with traffic movement along such roads;

- c) **Utility Provision:** Water lines should be laid within the road reserves. This means that surveying and opening up of roads should be a priority to enable smooth delivery of public utilities such as laying of water pipes, sewerage lines and power supply lines among others. Planning and subsequent implementation should be undertaken for the sewer line(s) that will connect to the existing sewerage treatment plant along Mbarara – Kabale highway.

10.5. PLANNING CONTROL

Planning control is a mandate of Ntungamo Municipality. It is thus, necessary to decentralize the enforcement of planning regulations to the respective divisions, wards and LC I Zones of the municipality. The Physical Development Plan specifies guidelines that when followed will ease regulating and enforcing development control.

Basis for Approval

No building shall be erected, placed, or altered on any plot until a site plan, landscape plan, and building construction plan have been approved in writing by Ntungamo Municipality. Approval or rejection of development plans shall be based on conformity with the guidelines and the regulatory framework outlined in this document, including the conformity and harmony of external design with existing structures.

Procedure of Building Plan Approval

The applicant must submit a building plan prior to the issuance of a building permit or site construction for scrutiny. Basing on land uses spelt out in the Physical Development Plan, the municipal council can accept the plans, reject or request for more information.

10.6. MONITORING AND EVALUATION

Monitoring and evaluation are key inputs in the implementation process. Efficient and timely execution is largely dependent on sound planning, monitoring and evaluation systems. The municipal council should develop monitoring and reporting systems at all levels of administration i.e. municipality, division and ward levels. Appropriate methodologies should be established to enable community based monitoring with the help of the local CBOs and NGOs. Capacity is still insufficient at the Ward/Parish Development Committees to adequately identify community problems, set priorities, plan, and implement, coordinate and follow up all development projects.

There is an urgent need to establish a monitoring unit by the Municipal Physical Planning Committee headed by a qualified Physical Planner to monitor and coordinate all sectoral plans and activities. The unit will prepare progress reports for submission to the Municipal Physical Planning Committee. Monitoring reports are essential management tools in providing the basis for rational decision making regarding plan implementation.

The main objectives of monitoring and evaluating Ntungamo Municipality Physical Development Plan are to identify latent challenges towards plan implementation and propose solutions and assess roles of various actors in the PDP implementation stages.

10.6.1. Monitoring

Monitoring plays an integral part in plan implementation process and it involves continuous and systematic checking on progress of the implementation process. Monitoring ensures implementation of the plan as per the desired objectives through a systematic and continuous

data collection and analysis exercise. The information obtained is used for decision making and management control.

Monitoring ensures the following:

- i) Keeping track and progress towards achieving the set objectives;
- ii) Ensures the most effective and efficient use of resources (human, financial, time and material);
- iii) Reducing wastage of resources and time by taking corrective measures;
- iv) Enables one to solve emerging project short falls and problems;
- v) Helps in making informed decisions regarding operations management and service delivery;
- vi) Provides accountability and greater transparency for beneficiaries and stakeholders; and
- vii) Motivation of staff and volunteers by knowing their out puts and achievements.

The Proposed monitoring Strategies for the implementation of the municipality plans include:

- i) Submission and subsequent approval of site development plans for facilities to ensure orderly, healthy and safe development;
- ii) Observing and noting how the project is proceeding;
- iii) Identification of areas of concern including the emergent problems or setbacks to project progress;
- iv) Identification and documentation of project inputs and outcomes and providing feedback/ reports to all stakeholders;
- v) Provision of regular/quarterly feedback to ensure that the project is on course;
- vi) Identifying and documenting inputs and outcomes; and
- vii) Field visits.

10.6.2. Proposed Strategies for Monitoring

- ✓ Observation of ongoing project activities and identifying areas of concern including the imminent problems/setbacks to project progress;
- ✓ Identification and documentation of project inputs and outcomes and providing feedback/reports to all stakeholders.
- ✓ Making regular/quarterly field visits to ensure that the project is on course.

10.6.3. Evaluation

Evaluation is an exercise that assesses, appraises or determines the worth, value, quality and impact of the project, program or plan. It involves comparing the present situation with the past baseline position to find out the extent to which the plan has achieved its intended purpose. Results of the evaluation are an important input in the design and formulation of a new development plan since it helps to check if the goals and objectives are being achieved and problems have been solved.

The evaluation process is a critical component in assessing output and quality. This is usually carried out during implementation to measure the plan's performance in relation to the available resources and time constraints.

The successes, failures and any new ideas realized/lessons learnt from the plan need to be documented for consideration in future related projects. These help in generation of informed decisions necessary to offer solutions to visible and sometimes invisible problems that affect man and his surroundings.

Evaluation enables the plan implementers to establish the following:

- i). Check if the established objectives are being achieved or about to be achieved;
- ii). Find out if the objectives are still relevant to the situation and the needs of the target beneficiaries; and
- iii). To make sure project implementers are accountable to the community beneficiaries.

10.6.4. Proposed Strategies for Evaluation

- a) Distribution of progress reports to all stakeholders;
- b) Organization of quarterly meetings directed at overcoming setbacks to plan progress as well as seeking new avenues that accommodate any foreseen threats to plan implementation.
- c) Progress reports should be disseminated to all stakeholders;
- d) Audit and Accountability reports; and
- e) Holding quarterly meetings to solve challenges to plan implementation and generate a way forward for threats to plan implementation.

10.7. PLAN APPROVAL PROCEDURES

The Physical Planning Act (2010) and Local Government Act (CAP 243) empowers Municipal Councils to be planning authority(ies) in their respective areas of jurisdiction. During the approval of Physical Development Plan, the municipal council shall pass a resolution in respect of the PDP, to approve the PDP and LPDP layouts and reports with guidance of the Municipal Physical Planning Committee.

10.7.1. Development Control

This is the responsibility of Ntungamo Municipal Council. Following the approval of Ntungamo Municipal Council PDP (2019 – 2029) and Ntungamo Municipal Council LPDP (2019 – 2024) on 05th September 2019 by Ntungamo Municipal Council, it is recommended that all developments within the areas covered by the plan **MUST** conform to the Municipality PDP and LPDP, Building and Engineering Standards to ensure that safety of people's lives is achieved. The standards provided herein have put into consideration the people's needs and their resource levels.

10.7.2. Building Requirements

Ntungamo Municipal Council **MUST** set up by-laws and planning regulations to implement recommendations made by the LPDP. Thus, qualified and experience technocrats are required to ensure that the following building requirements are satisfactorily followed:

- (i). All rooms should be well illuminated by natural light during day and night;
- (ii). Residents are provided with sufficient storage facilities for food stuffs and utensils;
- (iii). All residential rooms should have sufficient space in the room to stand, sit and sleep; and
- (iv). All rooms are well ventilated by natural air.

The Municipal Council should also guide developers on the following building requirements:

- (i). Written application for development;
- (ii). Site and layout plan/ block drawings;
- (iii). Plumbing and drainage installation drawings;
- (iv). Structural drawings;

- (v). Building material and their specifications;
- (vi). Fire protection specifications;
- (vii). Refuse disposal specifications;
- (viii). Public safety requirements;
- (ix). Sanitary provisions;
- (x). Electrical layout drawing; and
- (xi). Inclusion of facilities for people with movement challenges (or People with Disabilities) such as ramps, parking spaces, sanitary facilities etc. in case of public buildings.

Up on receiving such application, the municipal council shall approve or reject such an application within a minimum of 30 days. When the application is approved by the municipal council, the developer will be issued a permit allowing/consenting to the development. In case an application is deferred, the municipal council shall do so in writing to the affected parties with reasons why.

It is the responsibility of the Engineering Department to ensure that construction and site operations are undertaken as guided by the Uganda Building Regulations. Technical guidance should be provided to developers where appropriate by Building authorities. Such guidelines shall include but not limited to:

- ✓ Landscape, public open space and earthworks;
- ✓ Building construction;
- ✓ Temporary building erection;
- ✓ Architectural plans;
- ✓ Demolition works;
- ✓ Site operation;
- ✓ Material selection;
- ✓ Plumbing and drawing works;
- ✓ Refuse disposal;
- ✓ Public safety;
- ✓ Gender specification; and
- ✓ Building and property maintenance.

10.7.3. Infrastructural Requirements

The municipal council is responsible for the provision and maintenance of all infrastructure facilities and services planned to ensure accessibility, and that it does not become a health hazard and shall not be a danger/injurious to the community. Such developments shall include but not limited to the water borne systems, water supply systems, access and tertiary roads and surface runoff/storm water drainage facilities.

For effective implementation of the above tasks, the municipal council should undertake capacity building of the technical staff and put in place the following offices and equip them with technical staff where they are non-existent:

- ✓ Building inspection office
- ✓ Public health office
- ✓ Planning assistants
- ✓ Plans office (plan clerk)
- ✓ Draftsmen/cartographer
- ✓ Land surveyor
- ✓ Civil engineer

10.7.4. Planning Requirements

Developers applying to erect buildings and infrastructure facilities should make formal applications to the municipal council, accompanied by the following;

- ✓ Site plan;
- ✓ Block plan;
- ✓ Service drawing showing locations of the existing and point connections;
- ✓ Architectural plans and designs;

- ✓ Engineering Designs i.e. Civil/structural design details and M&E Drawings;
- ✓ Construction technology; specifications;
- ✓ Fire protection plan;
- ✓ Building material tests and specifications;
- ✓ Lighting, heating and ventilation requirements;
- ✓ Environmental safety;
- ✓ Gender specifications; and
- ✓ Disabled group specifications.

CHAPTER ELEVEN: CONCLUSIONS AND POLICY RECOMMENDATIONS

11.1. POLICY RECOMMENDATIONS

Physical Planning is a continuous and a cyclic process that requires constant field checks with a good policy for efficient development control. The following recommendations are crucial for effective plan implementation.

11.2. TECHNICAL RECOMMENDATIONS

- i).* It is necessary that an implementation strategy prepared by the Consultant serves as a guide to the municipality during implementation based on the short term, midterm and long term priorities;
- ii).* Streamlining legal provisions pertaining to nature of plan and plan approval, review and monitoring arrangements is crucial during implementation;
- iii).* Developing institutionalized coordination mechanisms particularly to link the decision making processes about budgets, infrastructure improvement and development with those of land management. This will improve transparency as well as accountability;
- iv).* Capacity building of agencies responsible for plan implementation, by recruiting additional technical staff and through periodic training of staff necessary for proper plan implementation;
- v).* Prioritising proposals contained in the plan and implementing them accordingly. Prioritization of proposals should be done in view of the real needs of the people of Ntungamo Municipality, resources available and capacity to implement them;
- vi).* Availability of adequate financial resources particularly for smooth and timely acquisition of land for public sector development projects;
- vii).* Good urban governance and management to enable effective supervision during plan implementation is needed;
- viii).* Instituting a system of development control to guide and avoid erratic developments and observation of building lines and setbacks is necessary;
- ix).* Conservation of the cultural heritage and natural resources is paramount for the preservation of the culture and environmental heritage of the town;
- x).* Community participation during plan implementation process is a good practice since it makes people own the plan;
- xi).* Ntungamo Municipality needs to urgently establish a planning office which is well equipped and recruit adequate staff to supervise plan implementation;
- xii).* The need to urgently establish solid waste collection centres in appropriate locations within the town. These could be garbage bankers, garbage skips or placement of garbage containers that allow waste separation by using different coloured containers for collecting different wastes.

11.3. GENERAL RECOMMENDATIONS

- i).* Securing political will regarding the proposals made in the PDP through orientation/ briefing of the elected representatives about the plan and the plan's role in achieving quality of life for the present and future generations, dissemination of progress reports for plan implementation, and creating awareness among the communities;
- ii).* Sensitization of communities about physical planning and its related objectives is crucial for successful implementation of plan;

- iii).* Lobbying and soliciting for funds from donor communities to implement the plan is necessary to avail the municipality with adequate funds to implement the plans;
- iv).* Environmental protection and maintenance of water sources such as springs particularly in the urban area. This will be worsened by the high dependence on the use of pit latrines for human excreta management within Ntungamo Municipality;
- v).* Opening up new roads and improvements to the existing key roads identified should be one of the councils priority action programme.

The pre-conditions cited above are not new but what is really needed, is serious thought and sincere effort to ensure effective implementation of Ntungamo Municipality PDP.

11.4. SPECIFIC RECOMMENDATIONS ON SANITATION AND WASTE MANAGEMENT

To improve Ntungamo Municipality's sanitation level, the following are critical areas of consideration:

- i).* Awareness creation programmes should be developed to increase stakeholders' interests, commitments and support for the interventions identified to address the waste management problem in Ntungamo Municipality;
- ii).* Increase community, NGO and CBO enrolment in plan implementation;
- iii).* Establishment of Public Private Partnerships between Ntungamo Municipality and Ntungamo District Local Government on the development of the sewage lagoon;
- iv).* Conduct EIA for landfill, cemetery and lagoons and any other proposal in the PDP;
- v).* Prioritization of solid waste management programs into the municipality Action plans and budget allocations, and stakeholders' commitment to provide finances, time and materials to implement planned activities;
- vi).* Build partnership for solid waste management among stakeholders;
- vii).* Strengthen initiatives on solid waste management such as sorting from source, applying the 3R Principle – Reduce, Reuse and Recycle;
- viii).* Revising and strengthening by-laws and legislation relating to solid waste management as well as their enforcement;
- ix).* Conduct research into appropriate technologies for waste reduction, recycling and reuse;
- x).* Building linkages between efforts for waste recycling and those aimed at utilizing the recycled waste;
- xi).* Establish a coordinating body to oversee the implementation of the Action Plan.

To tackle the problem of waste management in Ntungamo Municipality, the PDP proposes critical areas to be noted including:

- i).* The projected demographic changes and associated increase in volume of wastes generated;
- ii).* Institutional issues such as existing administrative structures, emergency of new institutions such as schools, industrial establishments and settlements be considered;
- iii).* Existing waste management and disposal initiatives and Facilities;
- iv).* The need to involve all actors, including urban communities, the private sector and NGOs;
- v).* Need for major generators of waste e.g. markets, schools to manage their own wastes through developing frameworks and self – regulation e.g. bye laws for waste management;
- vi).* Need to develop approaches, tools, and methods that will ensure sustainability of the interventions measures proposed in this action plan;

- vii). Waste water containment programmes for both domestic, industrial sludge and runoff to be channelled through storm water drains;
- viii). Tree planting programmes for landscape and creation of boulevards for domestic and local community aesthetic value; and
- ix). Conventional Human waste treatment to reduce the use of pit latrines especially.

11.5. SPECIFIC RECOMMENDATIONS ON ENVIRONMENT

The proposed Ntungamo Municipality PDP recommends that, natural and ecological/ bio-diversity be protected from destruction by human activities to safe guard the irreplaceable resources. The recommended key areas of focus include among others:

- i). Improve waste minimization strategy through encouraging re-use, resource recovery and recycling;
- ii). To minimize encroachment on natural habitats and resources like wetlands, forest reserves, drainage lines and other areas of ecological importance as the authority considers fit;
- iii). Promote the use of renewable energy such as solar, Bio gas, and discouraging the use of non-renewable energy; and
- iv). Encourage soft landscaping in homes and tree planting in the planning area.

The proposed plan recommends that EIA be undertaken on all projects that are likely to have negative impacts on the environment. All environmental concerns should be integrated in all development policies, projects, activities at the municipality level with full public participation. The developer is responsible for the EIA in accordance with the general guidelines on the conduct of the assessment and in compliance with the provision of the law.

The municipal council authorities are required to ensure that the following are satisfied by developers in undertaking EIA and they shall constitute the basic components of the EIA project:

- Submission of EIA briefs/ Project Brief;
- Environmental impact study;
- Screening; and
- Decision-making.

All the project details regarding the components listed above are to be provided by the developer/client and appropriate decision made to that effect by the authorities on the stake of the developer/client. The NES puts certain degree to Local Governments in the EIA process and the Physical Development Plan recommends that such powers conferred upon them be executed in achieving the concerns of the environment and such powers/duties shall include but not limited to the following;

- i). Inform their counterparts such as Parish Environment Committees, Municipality Physical Planning Committees, District Environment Officers or National Environment Management Authority on any development project that is being undertaken without having done any EIA;
- ii). Give in their views, as part of the public consultation, on the way they think the project can best be implemented with less or no significant environmental impact;
- iii). Local leaders can help developers in mobilising community members to obtain their views on how the project can take off without negative impacts on the environment;

- iv*). Undertake environment audits on periodic basis to find out how the environmental organization, management and equipment are performing in conserving the environment in its sources (NES 1995).
- v*). Undertake inspections and enforce environmental laws and regulations in their localities (Sec. 97 NES 1995). Developers who do not conform to the environmental laws and guidelines are subject to punishment by the local authorities and the NES provides the following as grounds of punishments and enforcement of the laws for those who do not comply:
 - ✓ Offences related to environmental standards;
 - ✓ Offences related to hazardous wastes materials, chemicals and toxic substances (Sec. 100 NES 1995);
 - ✓ Offences related to pollution (Sec. 101 of NES 1995);
 - ✓ Offences related to Restoration order (Sec. 102 NES 1995); and
 - ✓ Offences related to environmental impact assessment and Audits. (Sec. 97 NES 1995).

It's also proposed that the municipality should provide proper drainage systems to allow free flow of surface runoff /storm water, discourage any development in flood areas and wetlands and or even along natural drainage channels. This requires the authorities to identify such areas as proposed in the PDP and gazette them as protected/reserve areas. The plan in addition to the above recommends that the following specific key issues be considered in the implementation of the Plan.

11.6. RECOMMENDATIONS FOR EFFECTIVE ENFORCEMENT OF NTUNGAMO MUNICIPALITY PDP

There is inadequate plan implementation machinery at Ntungamo Municipality. There is no clearly laid down procedures for plan implementation and development control on ground. It is thus, recommended that Ntungamo Municipality establishes an effective development control system with relevant technical personnel. The following are particularly needed:

- | | |
|------------------------------|-------------------------|
| ✓ Division Physical Planners | ✓ Cartographer |
| ✓ Building inspector | ✓ Plans Clerk |
| ✓ Sociologist | ✓ Civil Engineer |
| ✓ Public Health inspector | ✓ Structural Engineer |
| ✓ Land surveyor | ✓ Environmental officer |

11.6.1. Planning Applications

Developers applying to put up buildings and infrastructure should make formal applications to the municipality and the applications should be accompanied by the following;

- ✓ Confirmation of land ownership (land title, sale agreement, consent from elders);
- ✓ Architectural Drawings;
- ✓ Structural Design Details (when required);
- ✓ Site Plan;
- ✓ Construction Technology Specifications;
- ✓ Service Drawing showing locations of the existing and point connections;
- ✓ Fire Protection Plan;
- ✓ Building Material tests and specifications;
- ✓ Environmental Safety;

- ✓ Gender Specifications;
- ✓ Disabled Group Specifications; and
- ✓ Lighting, heating and ventilation requirements.

11.6.2. Land subdivision

The applications for subdivision and change of use shall be forwarded to the Planning Authority and approved or deferred depending on the circumstances and situations that do not contravene this plan. This shall be subject to approval by the National Physical Planning Board and where the area in question is too big and or sensitive, in the interest of the public, the approval by NPPB shall be sought.

Sub-division of any parcel of land has to be certified by a qualified Physical Planner and must conform to the planning standards. It is also important to note that, land owners before subdividing their land, should use the services of a private firm or use the services of the physical planning department. The municipal council shall approval the detailed layouts where it is, strongly recommended that the municipality passes a resolution on this matter as a policy issue.

Approval of building plans is a procedural process which requires the sensitization of communities, landlords and developers on issues relating to skyline, building line, plot development ratio, floor area ratio, setbacks and orientation shall be prescribed at the detailed planning level where flexibility shall be exercised as deemed necessary by the municipal council.

In addition, further guidance shall be sought from the National Planning Authority and the secretariat of NPPB on matters relating to the planning of Ntungamo Municipality. It is recommended that Ntungamo Municipality acquires information relating to land administration so as to ensure effective management. Such may include adopted topographic and cadastral maps which will expedite effective detailed planning.

11.6.3. Plan Popularisation Strategy

It is important that this plan is owned by the municipality and all other stakeholders to ensure that its implementation is significantly domesticated and thereby seen as a responsibility of the people that the planning benefits most of them.

The entire planning process ensured that the key stakeholders, notably the municipality administration, the councillors, LC chairpersons, the business community, religious and other civic leaders and the local community in general were duly consulted and their participation was secured. Indeed this plan was based on consultation and participation, which will have made the exercise common knowledge to the community.

It is also important to point out that at various stages, presentations to the community should be made under the backing of the municipality administration and it is a requirement of the planning regulations that the plan be deposited and the community accorded reasonable time to make comments and suggestions on the draft plan.

A communication strategy was also in place and was used to publicly guide plan generation process and ensure that the various stakeholders were appropriately mobilized and kept informed about what was happening. The public address system and local community leaders

were some of the tools deployed to capture public attention and get people involved in this planning exercise. It can be concluded that a wide cross section of the key stakeholders are aware of and have participated in the planning of their town.

But there is need to ensure that everyone in the community is made aware of this plan and that even those who are aware of it and have participated in its making continue to see it as their own; and demand that it is implemented for the good of their town and indeed their community. Hence, this Popularisation strategy is hereby formulated to help in the following ways:

- a) retain the interest of the local community and other stakeholders in the planning process of their town;
- b) consolidate the message of the process, necessity and actual planning of the town;
- c) explain the plan and its benefits to the stakeholders;
- d) update the community on any implementation plans;
- e) alleviate fears, if any, about the impact of the plan on the community or any members; and
- f) Generally gather support from the public for the plan as necessary to ensure an orderly and sustainable development of their town.

11.7. CONCLUSIONS

Ntungamo Municipality Physical Development Plan (2019 – 2029) is a broad framework of land use proposals, strategies and policy recommendations for orderly development of Ntungamo Municipality over the 10 year planning period.

The preparation of Ntungamo Municipality PDP took a bottom up approach where all the relevant stakeholders were involved in the planning process at all stages. This was made possible through;

- a) Holding consultative meetings with the stakeholders;
- b) Focus group discussions with the Communities;
- c) Key informant interviews with municipality technocrats;
- d) Face to face interactions with the communities in the planning area; and
- e) Presentation of the draft alternative PDPs and selection of the preferred alternative plan by the general community.

This therefore implies that the plan is a true representation of the aspirations of Ntungamo Municipality inhabitants. This plan took into account the existing situation and made proposals to modify the existing conditions. This was geared at making low cost and sustainable development options that can easily be implemented using the limited available resources.

This PDP will facilitate the creation of good urban living environment beneficial to all socio-income groups and guide investment area priorities, policy framework for orderly development, and provides a basis for coordinating planning decisions. The plan will also serve as a basis for the preparation of detailed plan for Ntungamo Municipality that will guide investment possibilities, while specifying the actual property boundaries.

The development procedures ought to adequately follow the PDP so as to achieve an orderly, planned and liveable town of Ntungamo Municipality. It is consequently advised that developments that contravene this PDP should not be permitted.

In summary the Physical Development Plan shall become a policy framework that will guide land use development in the planning area for the next ten years and is subject for review at the end of the said planning period.

REFERENCES

- The 1995 Constitution of the Republic of Uganda
The Physical planning Act, 2010
The Local Government Act CAP 243
The Uganda Land Act, CAP 227
The National Environmental Statute CAP 153
The 2002 Uganda Population and Housing Census Results
Ntungamo Municipality Five Year Development Plan 2015/16 – 2019/20
J Brian McLoughlin: A systems Approach to Urban and Regional Planning
Peter Hall. *Urban and Regional Planning*, Penguin Books Ltd, 1975.
The Scandinavian Institute of African Studies, 1970, *Small Town Africa*, Studies in Rural Urban Interaction
Jonathan Bennett, *An Introduction to Urban Design*, Harper & Row Publishers, New York, 1982

LIST OF APPENDICES

- Appendix 1: Data required from selected stakeholders
- Appendix 2: Attendance List for Municipality Councillors, Staff, and Chairperson LC I on 26th April 2018
- Appendix 3: Attendance List for Municipal Council Staff and Councillors on 11th June 2018
- Appendix 4: Attendance List for Eastern Division Stakeholders on 11th June 2018
- Appendix 5: Attendance List for Central Division Stakeholders on 12th June 2018
- Appendix 6: Attendance List for Western Division Stakeholders on 12th June 2018

APPENDIX 1: DATA REQUIRED FROM SELECTED STAKEHOLDERS

S/N	Stakeholder	Data Required
1.	Security Organs (UPDF, UPF, etc.)	<p>These are concerned with the security of visitors to and from Ntungamo and Municipality residents.</p> <ul style="list-style-type: none"> ✓ Can they guarantee the security of Ntungamo and its residents e.g. hotel and house break-ins, etc.? ✓ What strategies are in place for community policing to ensure that Ntungamo town is operational 24 hours? ✓ What are your areas of operation? ✓ What are your future expansion plans in Ntungamo? ✓ What facilities should the proposed PDP include that will facilitate your operations?
2.	UMEME/ Uganda Electricity Generation Company Limited (UEGCL)/ Uganda Electricity Transmission Limited (UETCL)	<p>Ntungamo town is planned to be a secure town with security lights especially in areas of interest to tourists.</p> <ul style="list-style-type: none"> ✓ What is the current coverage of existing power supply lines (underground and overhead) in Ntungamo ✓ Will Ntungamo town be provided with streetlights and will they be on all the time? ✓ What are your future plans for eradicating power blackouts in Ntungamo especially at night? ✓ What plans are in place to keep the nightlife of Ntungamo alive for both tourists and citizens to make Ntungamo fully operational? ✓ What plans are in place to reduce on power tariffs to increase affordability? ✓ What are your future plans of expanding power to other areas of Ntungamo especially for the low income settlements?
3.	National Water and Sewerage Corporation (NW&SC)	<ul style="list-style-type: none"> ✓ What is your current water supply network, sewerage network coverage for Ntungamo? ✓ What are your plans in providing sufficient quantities, quality and reliable water supply to Ntungamo residents? ✓ Any plans of reducing on water charges (User rates) to make safe water affordable? ✓ Any plans to increase on the coverage of well-managed public places of convenience (toilets, bathrooms etc.)? ✓ What are your future expansion plans especially for the low-income settlements and reduction of rates charged? ✓ Any future plans of acquiring another treatment plant for Ntungamo and the neighbourhood? ✓ What are your future plans concerning sewer lagoons? ✓ Any need for a sewer treatment plans for Ntungamo? ✓ Where would you expand to and why?
4.	Telecom companies (Airtel, MTN, UTL, Africell, Smile etc.)	<ul style="list-style-type: none"> ✓ What are the existing Data and voice supply networks? ✓ What challenges do you face with provision of these services? ✓ Any strategies to solving the above challenges (if any)? ✓ Any future expansion plans
5.	Hotel Owners	<ul style="list-style-type: none"> ✓ What categories of hotels exist in Ntungamo (grouped by star ratings)? ✓ Are they up to the required international standards? If not, what are your planned interventions? ✓ What categories of visitors do they attract (local and international) and their origins? ✓ What is their minimum and maximum duration of stay in Ntungamo?

Ntungamo Municipality Physical Development Plan (2020 – 2030)

S/N	Stakeholder	Data Required
		<ul style="list-style-type: none"> ✓ What facilities are you planning to have that will make them stay longer in Ntungamo instead of going to other areas in Uganda? ✓ What future plans do you have for the hotel industry in Ntungamo town? ✓ What is the current volume of tourists both local and international? ✓ What is the projected volume of tourists both local and international? ✓ What facilities will you put in place to accommodate such numbers of the projected local and international tourists? ✓ What facilities are you planning to put in place that will ensure security for tourists when in transit?
6.	Religious (Churches, Mosques, etc.), Health and Education Institutions	<ul style="list-style-type: none"> ✓ How big are your pieces of land? ✓ What plans do you have for land under your care and administration?
7.	National Environment Management Authority (NEMA)/ National Forestry Authority (NFA)	<ul style="list-style-type: none"> ✓ What plans do you have in place to safeguard the environmental sensitive areas such as swamps and forests from encroachment? ✓ Any plans of making such areas more attractive to tourist say through conservation and improvement? ✓ What proposal do you have for inclusion in the proposed PDP for Ntungamo?
8.	Tour Companies	<ul style="list-style-type: none"> ✓ How many tourists enter Uganda monthly or annually? ✓ What are their various destinations? ✓ How do you plan to keep them longer in Ntungamo before proceeding to other destinations? ✓ What kind of information do you provide to tourists before leaving their home countries to Uganda? ✓ What more information should you provide to market Ntungamo town as a destination point than a transit town?
9.	Large land owners	<ul style="list-style-type: none"> ✓ How much land do you own? ✓ Is your land surveyed? ✓ If Yes, what are your future plans for this land? ✓ If No, do you think this is important? ✓ What challenges are you experiencing in developing your land?
10.	Uganda National Road Authority (UNRA) / Ministry of Works and Transport (MoW&T)	<ul style="list-style-type: none"> ✓ Available data on road network categorised by responsible institution? ✓ What are the future plans for transport network in Ntungamo? ✓ What plans do you want us to incorporate in the proposed PDP? ✓ What challenges do you foresee in providing infrastructure to Ntungamo town?
11.	Department of Surveys and Mapping, Ntungamo	<ul style="list-style-type: none"> ✓ Contour maps and values, cadastral sheets, topographic maps/sheets, and satellite imagery,
12.	Ministry of Tourism and Antiquities	<ul style="list-style-type: none"> ✓ Policy guidelines, strategies for Uganda's Tourism Sector, etc.

Source: M/s Realtek Consults Ltd, June 2018

**APPENDIX 2: ATTENDANCE LIST FOR MUNICIPALITY COUNCILLORS,
STAFF, AND CHAIRPERSON LC I ON 26th APRIL 2018**

APPENDIX 3: ATTENDANCE LIST FOR MUNICIPAL COUNCIL STAFF AND COUNCILLORS ON 11th JUNE 2018



NTUNGAMO MUNICIPAL
COUNCIL
P.O BOX 46,
NTUNGAMO

DATE 11/06/2018

ATTENDANCE SHEET STAKEHOLDER ENGAGEMENT ON PRESENTATION OF PHYSICAL DEVELOPMENT PLAN 2018-2028.

S/N	NAME	DESIGNATION	SIGNATURE
1	Bashaasha Robinah	Sec for Education	SRB
2	Ktomukama Hoy Tumwesigye	M/Mayor /Sec for Health	HT
3	Mugume Elias	Sec for works N/mc	HT
4	Amukuzire Frank	Ag. Mun. Engineer	Amukuzire
5	Kensi Selapio	L.D.U	Kensi
6	Banyumba Colonel	L.D.U	Banyumba
7	Alimule Jannet	HO	Alimule
8	Mukukunde Alime	S.A	Mukukunde
9	Katumukunde Evalyne	O.A	Katumukunde
10	Katusime Adrine	O.A	Katusime
11	Nuwamanya Bannex Dan	HO	Nuwamanya
12	Twinomusizi Isaac	HEALTH DPT	Twinomusizi
13	Iumukunde BRIGHT	FINANCE DPT	Iumukunde
14	Mukunda URORIA	PROCUREMENT DPT	Mukunda
15	Ktomukama PATICA	FINANCE DPT	Ktomukama
16	Mugisha ROBERT	Chairman	Mugisha
17	Biyakarema Sebastian	Senior Accountant	Biyakarema
18	Kwatta Juhet	Councillor (Cah/1)	Kwatta
19	AKAMUMPA HILDAH	FINANCE DPT	AKAMUMPA
20	Nuwamanya Yola	Finance Dpt	Nuwamanya
21	Alime Mulu Kankole	Municipal councillor	Alime
22	Tumusiime Selomon	Elder councillor	Tumusiime
23	Tur-ratya ANWAH Catherine	COUNCILLOR	Tur-ratya
24	Genigubi Shm	SECO	Genigubi
25	BEINOMUKISHA ELIAS	C/person for finance	BEINOMUKISHA
26	Mugizi Nicholas	Speaker	Mugizi
27	Twinomusizi Francis	Councillor	Twinomusizi
28	Natule J	Sec	Natule
30	BANYU LIVINGSTONE	MUNICIPAL COUNCILLOR	BANYU
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NTUNGAMO MUNICIPAL
COUNCIL
P.O BOX 46,
NTUNGAMO

DATE 11/06/2018

ATTENDANCE SHEET STAKEHOLDER ENGAGEMENT ON THE
PRESENTATION OF THE PHYSICAL DEVELOPMENT PLAN 2018-2028.

S/N	NAME	DESIGNATION	SIGNATURE
1	ATUHEIRE KENNETH	Physical Planner, KCC/KC	<i>[Signature]</i>
2	Vernani Byagaba	Urban Planner, Realtek	<i>[Signature]</i>
3	Phulista Herman Riese	REALTEK CONSULT LTD	<i>[Signature]</i>
4	Jacqueline Murethira	Geologist - MLHUD	<i>[Signature]</i>
5	Savitri Chumbe	Spatial Planner, RTC	<i>[Signature]</i>
6	Attimbisibwe Christopher	Town Clerk	<i>[Signature]</i>
7	Kapureeka - SAcob	Mayor NMC	<i>[Signature]</i>
8	SSENIEZA JUDE TADEO	PP/MLHUD	<i>[Signature]</i>
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**APPENDIX 4: ATTENDANCE LIST FOR EASTERN DIVISION
STAKEHOLDERS ON 11th JUNE 2018**

NTUNGAMO MUNICIPAL COUNCIL
P.O BOX 46,
NTUNGAMO.
DATE: 11/06/2018

Attendance Sheet.

Presentation of Existing Situation of Ntungamo
Municipality: PDP 2018-2028
Eastern Division.

S/N	Name	Designation	Signature
1	HASSI MUHEKI HAKIM	DIVISION C/PERSON	[Signature]
2	NAJUNAH CHARLES	SATC	[Signature]
3	JUSTINE MUGISHA	DIV/UCI PERSON	[Signature]
4	GRACE MUGISHA	SEC FOR. FINANCE	[Signature]
5	BASTUBIKA AMURU	Sec. for Education	[Signature]
6	Kayumba David	Councillor	[Signature]
7	Kahabura Alice	councillor	[Signature]
8	SENTEZA JUDE I.	PP/MLAD	[Signature]
9	Vainamwa Binyasa	pp Realtek	[Signature]
10	Sesajiti Cranner	Spacial Planner	[Signature]
11	MWESIGWA FRANCIS	RESIDENT OF KUNYUKA CELL	[Signature]
12	Iinkasimite Natta	C/M. K. e. I. Rusansana	[Signature]
13	Atumwa Comedy	Business man	[Signature]
14	RUTAHIGWA BRIAN	G/sec. NTADDES.	[Signature]
15	NABIRU BIRUGIRE	Ntungamo m/c	[Signature]
16	KURRISIMA KEAMESI		[Signature]
17	KALU		[Signature]
18	Atankwaka Stanley	Ntungamo m/c	[Signature]
19	ABIRIE ISMAIL	Ntungamo m/c	[Signature]
20	KANKI RIMELWE Bannan	Ntungamo	[Signature]
21	MUKISHA Herman Biza	REALTEK CONSULTANT	[Signature]
22	NSIMENSA MOLLY	SPEAKER FOR DIV.	[Signature]
23	MUTHWEZI STEPHEN	Physical Planner NMC	[Signature]
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NTUNGAMO MUNICIPAL COUNCIL
 P.O BOX 46,
 NTUNGAMO.
 DATE...11/06/2018

Attendance Sheet.

PRESENTATION OF EXISTING SITUATION OF NTUNGAMO
MUNICIPALITY PHYSICAL DEVELOPMENT PLAN 2018-2028
EASTERN DIVISION:

S/N	Name	Designation	Signature
1	HASSI MUHALI HAKIM	DIVISION CIPERSON	[Signature]
2	NAJUNAH CHARLES	SATC	[Signature]
3	JUSTINE MUGISHA	DIV VICEPERSON	[Signature]
4	GRACE MUGISHA	SEC FOR FINANCE	[Signature]
5	BEUBIZA ANA TORI	Sec for Education	[Signature]
6	Kayumbu David	Councillor	[Signature]
7	Kahabura Alice	Councillor	[Signature]
8	Namansio Byangaba	PP Partner	[Signature]
9	Jacqueline Yussima	Biologist - MLHU	[Signature]
10	Nyitegeyeka Damascen	PBC PARK TREDERS	[Signature]
11	Mugisha Caleb	Town Councillor	[Signature]
12	MUHWEZI BOAZ	HEADMASTER	[Signature]
13	Kanganyira Ismael	D/Speaker	[Signature]
14	Bukemp Ronald	Dist Councillor	[Signature]
15	Nuwagaba Benson	business man	[Signature]
16	Ahimbizwe Ismael	CIPERSON DUGOMA TOWN	[Signature]
17	Amanya J	Broker	[Signature]
18	Bamazi John	Business	[Signature]
19	TWIZUKYE ABOT	CIPERSON LETI - PARK WARD	[Signature]
20	TAMISOBUVAH NELSON	CIP - 100th km road	[Signature]
21	ATIHEKE KENNETH	Physical Planner Realtek Consultants	[Signature]
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APPENDIX 5: ATTENDANCE LIST FOR CENTRAL DIVISION STAKEHOLDERS ON 12th JUNE 2018

NTUNGAMO MUNICIPAL COUNCIL
P.O BOX 46,
NTUNGAMO.
DATE: 12/06/18

Attendance Sheet.

SENSITIZATION MEETING AT CENTRAL DIVISION
NTUNGAMO MUNICIPALITY.

S/N	Name	Designation	Signature
1	Muhwezi Stephen	Phy. Planner NMC	
2	Vamawo Bwalya	PP Realtek	
3	ATHEME KENETA	Planner Realtek	
4	BARITE SCODE	COUNCILLOR CENTRAL DIV	
5	TUGOMA ISHARD	COUNCILLOR	
6	AHIMBISIRWE EPHRAIM	COUNCILLOR	
7	Ryambanga Charles	C/man Kabonyenda	
8	Mukungu Wilson	C/Person Kyamya	
9	Tumukonyerezi Polly	Town Agent	
10	Nabireba Perezzi	V.H. I	
11	MPHIZI - Bwandi	Gman KIVUZI ETI	
12	Bp E. Tumukonyerezi ALLEWA	BISHOP	
13	BASUDE ENOCK	SATC Central Div	
14	ARINAIKOE DAN K.	DW C PERSON	
15	Semugubi Shem	Ay DTC	
16	Solanti Cranner	Spacial Planner	
17	SSENTEZA JUDE I	PHYSICAL PLANNER	
18	Jacqueline Nussuru	Psychology/MLTUD	
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Ntungamo Municipality Physical Development Plan (2020 – 2030)

NTUNGAMO MUNICIPAL COUNCIL
 P.O BOX 46,
 NTUNGAMO.
 DATE: 12/06/2018

Attendance Sheet.

Sensitisation Meeting at Central Division
 Ntungamo Municipality

S/N	Name	Designation	Signature
1	Mugisha Heemah Prisca	REALTEK CONSULTANTS LTD	
2	Bogere Masas	ASIKANI	
3	Nuwamanga Nabith	CEO	
4	Nuwamanga Ditrano	Internere	
5	Tsimukogyezi Polly	TBWA Agent	
6	Atheresa Ebon	Internship	
7	Munsima Christine	SAA	
8	ALDEMAANI ENGIH	INTERNSHIP	
9	Twinomugisha Prisca	see	Prisca
10	Mugisha Robert	cell no 5dm	
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APPENDIX 6: ATTENDANCE LIST FOR WESTERN DIVISION STAKEHOLDERS ON 12th JUNE 2018

NTUNGAMO MUNICIPAL COUNCIL
P.O BOX 46,
NTUNGAMO,
DATE 12/06/2018

Attendance Sheet.

SENSITIZATION OF STAKE HOLDERS AND PRESENTATION
OF EXISTING SITUATION IN WESTERN DIVISION
NTUNGAMO MUNICIPALITY. (APR 2018-2018.)

S/N	Name	Designation	Signature
1	Jacqueline Numbina	Sociologist/MLHD	[Signature]
2	SSENILZA JOSE	PP/MLHD	[Signature]
3	MUTHWEZI STEPHEN	Physical planner NMC	[Signature]
4	Semugubi Sam	Aj D/c	[Signature]
5	Bimpere Jacob	Rev person	[Signature]
6	Correia Bagima	Div speaker	[Signature]
7	Akankwasa Ben	Clman Cell No 9	[Signature]
8	Munumura Bernards K	Headteacher Mvoto MPIS	[Signature]
9	XIKWILA George	contractor	[Signature]
10	Ndungu Isidor	Comm	[Signature]
11	MBAROKA TOMA	Business man	[Signature]
12	MWASHA HEAMAN PRISCILLA	REALTY CONSULTANT	[Signature]
13	AGONGA ANITA	Intern	[Signature]
14	AMUJHIRE MERCY	Intern	[Signature]
15	ASIMIRE MORGENT	contractor Intern	[Signature]
16	RUGATTANSI LUDIAN	Intern	[Signature]
17	ARIMATWE DEHS	"	[Signature]
18	Akandela Behereh	Person Agent	[Signature]
19	KOMOGIHA ADOPHIA	Trainee	[Signature]
20	Muedi gye John mory	N/A	[Signature]

21 Mugisha Benson Gen. Sec. Leifer of
22 A. ... N. ... SA IC
23 Muedi gye Odete V/c person