

REPUBLIQUE DU CAMEROUN

.....  
*Paix-Travail-Patrie*  
.....

DEPARTEMENT DE MEME

.....  
COMMUNAUTE URBAINE DE KUMBA



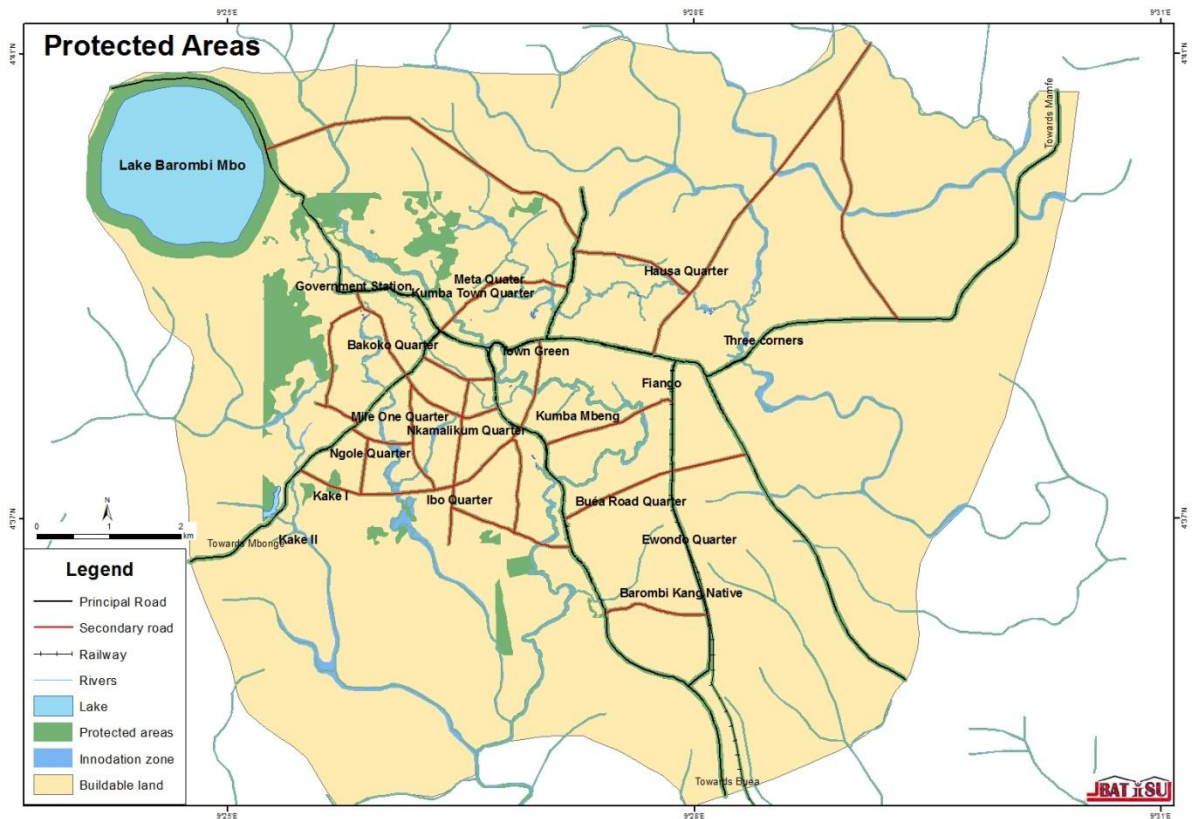
REPUBLIC OF CAMEROON

.....  
*Peace-Work-Fatherland*  
.....

MEME DIVISION

.....  
KUMBA URBAN COUNCIL

# KUMBA CITY MASTER PLAN



## PLANNING REPORT



Bureau d'Appui Technique à l'Immobilier  
Et Aux Services Urbains

ETUDES URBANISTIQUES, ENVIRONNEMENTALES,

SOCIO ECONOMIQUES, FONCIERES ET CADASTRALES

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# TABLE OF CONTENT

<b>TABLE OF CONTENT</b>	<b><i>i</i></b>
<b>LIST TABLES</b>	<b><i>viii</i></b>
<b>LIST OF PLANS</b>	<b><i>ix</i></b>
<b>LIST OF GRAPHS</b>	<b><i>x</i></b>
<b>INTERVENANTS</b>	<b><i>xi</i></b>
<b>MISSION STATEMENT</b>	<b><i>xii</i></b>
<b>1.1 INTRODUCTION</b>	<b><i>1</i></b>
1.1 INTRODUCTION	<b><i>2</i></b>
1.2 PLANNING APPROACH AND METHODOLOGY	<b><i>2</i></b>
1.3 LIMITATIONS	Erreur ! Signet non défini.
<b>2.0 BACKGROUND OF KUMBA CITY</b>	<b><i>4</i></b>
2.1 SUB-REGIONAL CONTEXT	<b><i>5</i></b>
2.2 DELIMITATION OF PLANNING AREA	<b><i>8</i></b>
2.2.1 Distribution of Land within the Planning Area.	<b><i>10</i></b>
2.3 CHARACTERISTICS OF NATURAL SITE	<b><i>10</i></b>
2.4 CHARACTERISTICS OF MAN-MADE SITE	<b><i>12</i></b>
2.5 Population Projection	<b><i>14</i></b>
2.6 LAND REQUIRED FOR URBAN DEVELOPMENT IN KUMBA	<b><i>16</i></b>
2.7 DEVELOPMENT SCENARIOS	<b><i>17</i></b>
2.8 Recommendation	<b><i>19</i></b>
<b>3.0 URBAN SPATIAL STRUCTURE AND ORGANIZATION</b>	<b><i>20</i></b>
3.1 EXISTING SITUATION	<b><i>21</i></b>
3.2 OBJECTIVES	<b><i>21</i></b>
3.3 THE SPATIAL STRUCTURE OF KUMBA CITY	<b><i>21</i></b>
3.3.1 Guidelines for Spatial Structure and Organisation of Kumba	<b><i>21</i></b>
3.3.2 Elements of Spatial Structure and Organization	<b><i>22</i></b>
3.1.3 Concept of Urban Spatial Structure	<b><i>23</i></b>
3.4 SPATIAL STRUCTURE AND ORGANIZATION OF KUMBA CITY	<b><i>24</i></b>
3.5 PROPOSED INTERNAL SPATIAL STRUCTURE	<b><i>24</i></b>

3.5.1 Kumba Inner Area	24
3.5.2 Kumba Southeast	24
3.5.3 Kumba Southwest	24
3.5.4 Kumba Northeast	24
3.5.5 Kumba West	24
3.5.6 Kumba North	24
<b>3.6 HIERARCHY OF KUMBA SERVICE CENTRES</b>	<b>25</b>
<b>3.7 LAND ALLOCATION BY SPATIAL UNITS</b>	<b>28</b>
<b>3.8 PRIORITY PROJECTS OF URBAN SPATIAL STRUCTURE</b>	<b>30</b>
3.8.1 Official delimitation of Kumba City Planning Area	30
3.8.2 Delimitation of proposed urban districts	30
3.8.3 Carry out five yearly censuses of Kumba City Area	30
3.8.4 Acquisition of satellite images to cover the whole planning area	30
<b>4.0 PROPOSED LAND USE PLAN</b>	<b>32</b>
<b>4.1 OBJECTIVES OF LAND USE PLAN</b>	<b>33</b>
<b>4.2 EXISTING LAND USE PATTERN</b>	<b>33</b>
<b>4.3 PROPOSED MACRO LAND USE CATEGORIES</b>	<b>35</b>
<b>4.4 ELEMENTS OF URBAN DISTRICT LAND USE PLAN</b>	<b>36</b>
<b>4.5 LAND USE ZONING REGULATIONS</b>	<b>36</b>
4.5.1 Processes and procedures of land use control measures shall be clearly defined for:	36
4.5.2 Micro land use rules and regulations shall be prepared and adopted as council planning bye-laws	37
4.5.3 Land use Standards shall be prepared and enforced by KCC and Kumba I, II and III.	37
<b>4.6 Land Use Implementation Programme</b>	<b>37</b>
4.4.1 Preparation of Urban District Land Use Plans	37
4.4.2 Preparation of Neighborhood Plans in Priority Development Area (PDA)	37
4.4.3 Preparation of CBD and Urban District Service Centre Plans	37
4.4.4 Preparation of Kumba City land use rules and regulations	37
<b>5.0 NETWORKS AND INFRASTRUCTURE</b>	<b>39</b>
<b>5.1 ROAD NETWORKS</b>	<b>40</b>
5.1.1 Objectives	40
5.1.2 Hierarchy of Urban Roads	40
5.1.3 Existing Road Network	40
5.1.4 Proposed Road Networks	42
5.1.4.1 Arterial Roads	42
5.1.4.2 Freeways	42
5.1.4.3 Primary Roads	42
5.1.4.4 Secondary Roads	42
5.1.4.5 Kumba Public Right-of-ways (PRW's)	42
5.1.4.6 Technical Details	43
5.1.4.6 Typical Cross Sections of Roads	45
5.1.4.8 Estimated Lengths of Priority Roads	47

5.1.5	Priority Projects	47
5.1.5.1	Rehabilitation of tarred urban roads	47
5.1.5.2	Upgrading of existing primary roads	47
5.1.5.3	Upgrading of existing secondary roads	47
5.1.5.4	Extension of primary and secondary road networks	47
<b>5.2</b>	<b>RAIL NETWORK</b>	<b>47</b>
<b>5.3</b>	<b>DRAINAGE NETWORKS</b>	<b>49</b>
5.3.1	Existing Situation	49
5.3.2	Objectives	49
5.3.3	Rules and regulations	49
5.3.4	Recommended Projects	49
5.3.4.1	Design of natural drainage networks	49
5.3.4.2	Covering of existing constructed open side drains along tarred roads	49
5.3.4.3	Construction of priority natural drainage	49
<b>5.4</b>	<b>Sewage Networks and Systems</b>	<b>51</b>
5.4.1	Existing Situation	51
5.4.2	Objectives	51
5.4.3	Rules and Regulations	51
5.4.4	Recommended Projects	51
5.4.4.1	Construction of adequate public conveniences	51
5.4.4.2	Effective and regular control of private sewage facilities	51
<b>5.5</b>	<b>WATER SUPPLY NETWORKS</b>	<b>53</b>
5.5.1	Existing Situation	53
5.5.2	Objectives	53
5.5.3	Rules and regulations for water supply shall include:	53
5.5.4	Recommended Projects	53
5.5.4.1	Protection of water catchment	53
5.5.4.2	Rehabilitation and regular maintenance of water supply networks and installations	53
5.5.4.3	Put in place water quality assurance measures	53
5.5.4.4	Carry out studies for upgrading the water supply capacity	53
5.5.4.5	Upgrade water supply capacity	53
<b>5.6</b>	<b>ENERGY SUPPLY NETWORKS</b>	<b>55</b>
5.6.1	Existing Situation	55
5.6.2	Objectives	55
5.6.3	Rules and regulations for the supply of energy shall include:	55
5.6.4	Electricity Supply Networks	55
5.6.5	Recommended Projects	55
5.6.5.1	Diversification of sources of energy	55
5.6.5.2	Extension of existing electricity networks	55
5.6.5.3	Public street lighting	55
<b>5.7</b>	<b>COMMUNICATION FACILITIES</b>	<b>57</b>
5.7.1	Existing Situation	57
5.7.2	Objective	57
5.7.3	Rules and regulation for communication facilities shall include:	57

5.7.4 Recommended Projects	57
5.7.4.1 Extend communication fiber network to Kumba	57
5.7.4.2 Rehabilitate and upgrade existing fixed telephone networks and installations	57
5.7.4.3 Upgrade mobile telephone facilities	57
<b>6.0 TRANSPORT AND TRAFFIC PLAN</b>	<b>59</b>
6.1 EXISTING SITUATION	60
6.2 OBJECTIVE	60
6.3 TRANSPORT AND TRAFFIC MANAGEMENT PLAN	60
6.4 RULES AND REGULATIONS FOR PARKING FACILITIES SHALL INCLUDE:	60
6.5 RECOMMENDED PROJECTS	60
6.5.1 Selection, acquisition and reservation of sites for Council motor and lorry parks	60
6.5.2 Rehabilitation and upgrading of existing council motor parks	60
6.5.3 Preparation of Kumba City parking rules and regulations	60
6.5.4 Carry out feasibility studies for creating a Kumba City municipal bus system	60
<b>7.0 LAND MANAGEMENT AND HOUSING</b>	<b>62</b>
7.1 EXISTING SITUATION	63
7.2 PROJECTION OF HOUSING DEMAND AND NEEDS: 2012 -2027	63
7.3 OBJECTIVES	63
7.4 UPGRADING AND INFILLING OF HOUSING AREA	64
7.5 CREATION OF NEW HOUSING LAYOUTS	64
7.6 RECOMMENDED PROJECTS	64
7.6.1 Facilitate access to housing finance and construction techniques and technologies	64
7.6.2 Facilitate access to housing land for the poor	64
7.6.3 Facilitate access to basic services and utilities in housing areas	64
7.6.4 Construction of 1000 social houses yearly	64
7.6.5 Upgrading of slum areas	64
7.7 RULES AND REGULATIONS FOR RESIDENTIAL LAND USES	65
<b>8.0 PUBLIC AND COMMUNITY FACILITIES</b>	<b>67</b>
8.1 EXISTING SITUATION	68
8.2 OBJECTIVES	68
8.3 EDUCATIONAL FACILITIES	68
8.3.2 Projected Demand for Government Schools: 2012 – 2027	69
8.3.3 Location	69
8.3.4 Recommended Projects	69
8.3.4.1 Rehabilitation and upgrading of existing schools	69
8.3.4.2 Acquire and reserve sites for educational facilities	69
8.3.4.3 Provide new educational facilities to match growing demand	69

8.3.5 Rules and Regulations _____	69
<b>8.4 HEALTH FACILITIES _____</b>	<b>82</b>
8.4.1 Proposed Standards for Health Facilities _____	82
8.4.2 Projected Demand for Public Health Facilities _____	82
8.4.3 Location plans _____	83
8.4.4 Recommended Projects _____	83
8.4.4.1 Rehabilitate and upgrade existing public health facilities _____	83
8.4.4.2 Acquire and reserve sites for future public health facilities _____	83
8.4.4.3 Provide new public health facilities to match growing demand _____	83
<b>8.5 MARKETS AND SHOPPING CENTRES _____</b>	<b>86</b>
<b>8.6 PARKING FACILITIES _____</b>	<b>86</b>
8.6.2 Location of motor, lorry and bus parks _____	87
<b>8.7 CIVIC AND CULTURAL FACILITIES _____</b>	<b>87</b>
<b>8.8 WELFARE FACILITIES _____</b>	<b>88</b>
<b>8.9 SPORTS AND RECREATION _____</b>	<b>89</b>
8.10 Open Spaces and Greens _____	90
<b>9.0 ENVIRONMENTAL MANAGEMENT PLAN _____</b>	<b>93</b>
<b>9.1 OBJECTIVES _____</b>	<b>94</b>
<b>9.2 SOLID WASTE MANAGEMENT _____</b>	<b>94</b>
9.2.1 Existing Situation _____	94
9.2.2 Objective _____	94
9.2.3 Management Processes and Procedures _____	94
9.2.4 Rules and Regulations _____	94
9.2.5 Recommended Projects _____	94
<b>9.3 SEWAGE MANAGEMENT _____</b>	<b>95</b>
9.3.1 Existing Situation _____	95
9.3.2 Objective _____	95
9.3.3 Management Processes and Procedures _____	95
9.3.4 Rules and Regulations _____	95
9.3.5 Recommended Projects _____	95
<b>9.4 POLLUTION _____</b>	<b>95</b>
9.4.1 Existing Situation _____	95
9.4.2 Objective _____	95
9.4.3 Rules and Regulations _____	95
<b>9.5 PROTECTED AREAS _____</b>	<b>96</b>
9.5.1 Existing Situation _____	96
9.5.2 Objective _____	96
9.5.3 Management Processes and Procedures _____	96
9.5.4 Rules and Regulations _____	96
9.5.5 Recommended Projects _____	96
9.5.6 Reclamation of occupied protected areas _____	96

9.5.7	Resettlement of those displaced by reclamation schemes	96
<b>9.6</b>	<b>ENVIRONMENTAL IMPACT ASSESSMENT</b>	<b>98</b>
9.6.1	Existing Situation	98
9.6.2	Objective	98
9.6.3	Processes and Procedures	98
<b>10.0</b>	<b>ECONOMIC BASE PLAN</b>	<b>100</b>
<b>10.1</b>	<b>EXISTING SITUATION</b>	<b>101</b>
<b>10.2</b>	<b>OBJECTIVE</b>	<b>101</b>
<b>10.3</b>	<b>ECONOMIC BASE STRATEGIES</b>	<b>102</b>
10.3.1	Agricultural Production and Natural Resource Exploitation	102
10.3.2	Processing of Produce and Raw Materials	102
10.3.3	Industrial and Manufacturing Base	102
10.3.4	Tourism	103
10.3.5	Service Activities	103
10.3.6	Quaternary Services	103
10.3.6	Financial and Capital Market	103
10.3.7	Informal and Formal Economic Activities	104
10.3.8	Money Flow	104
10.3.9	Corporate Investments	104
10.3.10	Construction Industry	104
10.4	Recommended Projects	105
10.4.1	Carry out an industrial and manufacturing base study of Kumba and its sub-region	105
10.4.2	Carry out a financial market feasibility study for Kumba	105
<b>11.0</b>	<b>INSTITUTIONAL CAPACITY BUILDING PLAN</b>	<b>107</b>
<b>11.1</b>	<b>EXISTING SITUATION</b>	<b>108</b>
<b>11.2</b>	<b>OBJECTIVE</b>	<b>108</b>
<b>11.3</b>	<b>ORGANIZATIONAL STRUCTURE OF KCC TECHNICAL DEPARTMENTS</b>	<b>108</b>
<b>11.3</b>	<b>ORGANIZATIONAL STRUCTURE OF KCC TECHNICAL DEPARTMENTS</b>	<b>109</b>
<b>11.4</b>	<b>KUMBA CITY PLANNING AUTHORITY (PA)</b>	<b>110</b>
11.4.1	What is a Planning Authority?	110
11.4.2	Terms of reference for a Planning Commission	110
11.4.3	The members of Kumba City Planning Authority (PA) should include:	110
<b>11.5</b>	<b>PLANNING AND LAND DEVELOPMENT PROCESSES AND PROCEDURES</b>	<b>110</b>
<b>11.6</b>	<b>DEVELOPMENT OF PARTNERSHIP</b>	<b>111</b>
<b>11.7</b>	<b>KUMBA CITY COMMUNICATION PLAN</b>	<b>112</b>
<b>11.8</b>	<b>PRIORITY PROJECTS</b>	<b>112</b>
11.8.1	Employment of adequate and competent technical personnel	112
11.8.2	Setting up of Kumba City Planning Authority	112
11.8.3	Kumba City planning and development processes and procedures	112

11.8.4	Kumba City communication plan _____	112
11.8.5	Creation of Kumba City partnership platform _____	112
<b>12.0</b>	<b>FIVE YEARLY PROGRAMME OF IMPLEMENTATION _____</b>	<b>115</b>
<b>13.0</b>	<b>FINANCIAL PLAN _____</b>	<b>120</b>
<b>13.1</b>	<b>EXISTING SITUATION _____</b>	<b>121</b>
<b>13.2</b>	<b>OBJECTIVES _____</b>	<b>121</b>
<b>13.3</b>	<b>FINANCE MOBILIZATION PLAN _____</b>	<b>121</b>
13.3.1	Widening Kumba City and Kumba I, II and III development tax bases _____	121
13.3.2	Increasing Kumba City and Kumba I, II and III annual capital investment for planning, _____	121
	development and maintenance: _____	121
<b>13.4</b>	<b>PRIORITY PROJECTS _____</b>	<b>122</b>
13.4.1	Studies for Widening Kumba City and Kumba I, II and III development tax bases _____	122
13.4.2	Kumba City Development Platform _____	122
13.4.3	Feasibility study for community participation in development _____	122
<b>14.0</b>	<b>ANNEXES _____</b>	<b>124</b>



# LIST TABLES

Table N° 1 : State of Sub-regional Transportation Networks	5
Table N° 2 : Settlements of sub-regional Hierarchy	6
Table N° 3 shows the minimum Land Carrying Capacity within the planning area.	10
Table N° 4 : Minimum Land carrying Capacities within the planning area	<b>Erreur ! Signet non défini.</b>
Table N° 5 : Population Growth between National Censuses	14
Table N° 6 : Population Projection Variants : 2012- 2027	15
Table N° 7 : Proposed populations sizes of elements of urban spatial structure	23
Table N° 8 : Land Allocation by Spatial Units	28
Table N° 9 : Project sheet	31
Table N°10 : Project Sheet	38
<b>Table N° 11 : Project Sheet</b>	<b>48</b>
<b>Table N° 12 : Project Sheet</b>	<b>50</b>
<b>Table N° 13 : Project Sheet</b>	<b>52</b>
Table N° 14 : Project Sheet	54
Table N° 15 : Project Sheet	56
Table N° 16 : Project Sheet	58
Table N° 17 : Project Sheet	61
Table N° 18 : Projected Housing demands and Needs	63
Table N° 19 : Plot development norms and standards	65
Table N° 20 : Project Sheet	66
Table N° 21 : Proposed Standards for Public Educational Facilities	68
Table N° 22 : Projected Demand for Government Schools: 2012 – 2027	69
Table N° 23 : Proposed Standards for Health Facilities.	82
Table N° 24 : Projected Demand for Public Health Facilities	82
Table N° 25 : Proposed Standards for Markets and Shopping Facilities	86
<b>Table N° 26 : Proposed Standards for Parking Facilities</b>	<b>Erreur ! Signet non défini.</b>
Table N° 27 : Proposed Standards for Public Libraries and Creativity Centres	87
Table N° 28 : Proposed Standards for Table Public and Community halls	88
Table N° 29 : Proposed standards for welfare facilities	88
Table N° 30 : Proposed Standards for Sports and Recreational Facilities	89
Table N° 31 : Project Sheet	91
Table N° 32 : Project Sheet	99
Table N° 33 : Project Sheet	106
Table N° 34 : Project Sheet	113
Table N° 35 : Project Sheet	123

# LIST OF FIGURES

Figure N° 1 : Settlements of regional functions _____	7
Figure N° 2 : Limits of Planning Area _____	9
Figure N° 3 : Characteristics of Natural Site _____	11
Figure N° 4 : Characteristics of Man-made Site _____	13
Figure N° 5 Preferred Development Scenario _____	18
Figure N° 6 Model of urban structure of Kumba _____	22
Figure N° 7 : Elements of Spatial Structure and Organization of Kumba _____	23
Figure N° 8 : Proposed Urban Spatial Structure of Kumba City _____	<b>Erreur ! Signet non défini.</b>
Figure N° 9 : Proposed Hierarchy of service Centres _____	27
Figure N° 10 : Urban Spatial Structure and Land Allocation by Spatial Units of Kumba _____	29
Figure N° 11 : Existing land use pattern _____	34
Figure N° 12 : Existing road networks _____	41
Figure N° 13 : Proposed Hierarchy of Road Networks _____	44
Figure N° 14 : Location and catchment areas of existing government schools _____	<b>Erreur ! Signet non défini.</b>
Figure N° 15 : Location and catchment areas of proposed government Nursery schools _____	<b>Erreur ! Signet non défini.</b>
Figure N° 16 : Location and catchment areas of existing and proposed government Nursery schools _____	<b>Erreur ! Signet non défini.</b>
Figure N° 17 : Location of existing government primary schools _____	<b>Erreur ! Signet non défini.</b>
Figure N° 18 : Location of proposed Government Proposed Schools _____	<b>Erreur ! Signet non défini.</b>
Figure N° 19 : Location of existing and proposed Government Primary Schools _____	<b>Erreur ! Signet non défini.</b>
Figure N° 20 : Location of existing government Secondary and High schools _____	<b>Erreur ! Signet non défini.</b>
Figure N° 21 : Location of existing Government Secondary and High Schools _____	<b>Erreur ! Signet non défini.</b>
Figure N° 22 : Location of existing Proposed Secondary and High Schools _____	<b>Erreur ! Signet non défini.</b>
Figure N° 23 : Location of existing Technical Secondary and High Schools _____	<b>Erreur ! Signet non défini.</b>
Figure N° 24 : Location of proposed Technical Secondary and High Schools _____	<b>Erreur ! Signet non défini.</b>
Figure N° 25 : Location of proposed Technical Secondary and High Schools _____	<b>Erreur ! Signet non défini.</b>
Figure N° 26 : Location of existing and proposed Technical Secondary and High Schools _____	<b>Erreur ! Signet non défini.</b>
Figure N° 27 : Location of existing Government Health Services _____	<b>Erreur ! Signet non défini.</b>
Figure N° 28 : Location of existing and proposed government Health Centres _____	<b>Erreur ! Signet non défini.</b>
Figure N° 29 : Environmentally Protected Areas _____	97

# LIST OF GRAPHS

<i>Graph N° 1 : Alternative Trends of Population Growth: 2012 - 2027</i>	15
<b>Graph N° 2 : Typical Cross Sections of Arterial and Primary 30 m (scale : 1/100<sup>e</sup>)</b>	45
<i>Graph N° 3 : Typical Cross Sections of Primary and Secondary Roads 22 m (scale : 1/100<sup>e</sup>)</i>	46
<i>Graph N° 4 : Organizational structure of Kumba City Council technical services</i>	109

# **INTERVENANTS**

- **Dr François Nanfack: General Manager, BATISU Sarl**
- **Mr Zachary Fru Nsutebu : Chief of mission**
- **Mr Nchouwat Mouchili Idrissa : Chief of project**
- **Mrs Brigitte Folefack : Facilitator**
- **Mr Sendze David Layili : Facilitator**

# MISSION STATEMENT

Kumba, the metropolitan Centre of Meme Division and the strategic urban centre of the South West Region, is located on a suitable well drained site. In spite of the existing largely unplanned urban development, it could be planned, upgraded and systematically extended to play its strategic role within the sub-region and offer a beautiful, healthy, safe, secured, comfortable, convenient and functional living environment which provides equitable opportunities to all its inhabitants and visitors. Kumba should eventually take its place as an emerging modern city by 2035 within the national development context. To do so, requires the effective involvement and participation of all its stakeholders and partners.

*This plan aims at achieving the following overall goals in the long term: -*

- ❖ To completely curb the premature invasion and conversion of rural land into urban land;
- ❖ To facilitate access to land in suitable areas for urban growth and expansion;
- ❖ To completely prevent the spontaneous land subdivision and construction on the urban fringe;
- ❖ To gradually and progressively infill vacant plots within the existing built areas;
- ❖ To gradually and progressively upgrade degraded urban areas;
- ❖ To rehabilitate and upgrade existing road networks and infrastructure;
- ❖ To extend existing road networks to match rapid urban growth and expansion;
- ❖ To rehabilitate and upgrade existing public utility networks and installations;
- ❖ To make optimum use of available capacities of public and community facilities;
- ❖ To ensure the rational location and sitting of public and community facilities and
- ❖ To gradually and progressively segregate residential land uses according to emerging socio-economic status groups while protecting

# **KUMBA CITY MASTER PLAN**

## **I. I INTRODUCTION**

### **PLANNING REPORT**



## 1.1 INTRODUCTION

The preparation of a Master Plan for Kumba City is the initiative of the Government Delegate of Kumba City Council and the Minister of Housing and Urban Development. It is within the framework of the following national objectives: -

- ❖ National growth, employment and durable economic development;
- ❖ Fight against poverty
- ❖ Good governance
- ❖ National decentralization strategy

This involves establishing and validating through a participatory process which brings together concerned local stakeholders, the preparation of a master plan for Kumba City with a short and medium term development priorities.

In Particular, this plan should present the priority actions to be taken by Kumba City Council, all institutional partners, the private sector and civil society inclusive aimed at the following: -

- ❖ Reinforcing the attractiveness and competitiveness of Kumba by making optimum use of development potentials of the area and taking concrete and appropriate actions;
- ❖ Creating conditions for growth through the judicious planning of economic poles which permit revenue generation from the informal, agro industrial. Tourism and cultural sectors;
- ❖ Give attention to the planning principle which reinforces the relationship between development poles, urban centres and fringe of urban areas undergoing urbanization;
- ❖ Improve on urban governance through improved institutional frameworks which are adopted to the local context and promoting inter council relationships;
- ❖ Improve on the living conditions of the population through the dynamics of the economic sector. Particular attention should be given to the difficulties of access to secured land tenure which have been responsible for spontaneous and precarious housing;
- ❖ Develop the cultural potentials of Kumba with its sub-regional and national urban development context.

In other words, this involves preparing a plan which when implemented shall ensure the durable economic development of Kumba while taking into account issuing environmental problems.

## 1.2 PLANNING APPROACH AND METHODOLOGY

The planning approach is largely consultative and participatory, involving: -

- ❖ Carrying out a household survey based on predesigned questionnaire;
- ❖ Carrying out sectoral and thematic surveys of institutions, organizations and enterprises;
- ❖ Analysis and correlation results of household, sectoral and thematic surveys;
- ❖ Presentation of results surveys to key stakeholders for restitution;

- ❖ Carrying out of sectoral and thematic urban diagnosis;
- ❖ Generation of alternative development scenarios;
- ❖ Presentation of results of urban diagnosis and development scenarios to representatives of key stakeholders for restitution and selection of preferred development scenario;
- ❖ Development of the preferred development scenario into a plan accompanied with priority projects and rules and regulations;
- ❖ Presentation of plans, priority projects, rules and regulations for validation by representatives of key stakeholders;
- ❖ Presentation of final plans and planning report for approval accordingly.



## **2.0 BACKGROUND OF KUMBA**

### **PLANNING REPORT**



## 2.0 BACKGROUND OF KUMBA CITY

### 2.1 SUB-REGIONAL CONTEXT

Kumba is the administrative and economic capital of Meme Division with five subdivisions including Kumba I, II, and II, Mbonge and Konye. In addition, Kumba provides economic, social and cultural services to a wide hinterland covering Kupe Manuguba, Manyu and Ndian divisions and Muyuka subdivision in Fako Division. Kumba is also the main centre of a rich cash crop and foodstuff production region. As such, Kumba functions as a centre of export for foodstuff and cash crops.

Kumba largely depends on Douala, Limbe and Nigeria for the supply of manufactured goods and inputs into production. Kumba also depends on Buea for administrative and higher education services and Limbe for recreational facilities.

In spite of these important functions and strategic location of Kumba, it lacks a properly constructed and well maintained transportation network in the sub-region.

**Table N° 1 : State of Sub-regional Transportation Networks**

Item	Description	Distance in Km	State	Function
01	Kumba-Buea-Limbe	89	Well constructed and tarred	Transport goods and passengers from and to Fako Division
02	Kumba-Buea-Douala	144	Well constructed and tarred	Transport goods and passengers from and to Littoral Region and Yaounde
03	Kumba-Mbanga-Douala Railway	40	Well maintained	Transport goods and passengers from and to Douala, Yaoundé and Northern regions
04	Kumba-Mamfe	181	Designed but poorly constructed and un-tarred	Transport goods and passengers from and to Bamenda and Nigeria
05	Kumba-Loum	41	Poorly constructed and not tarred	Transport goods and passengers from and to Douala and West Region

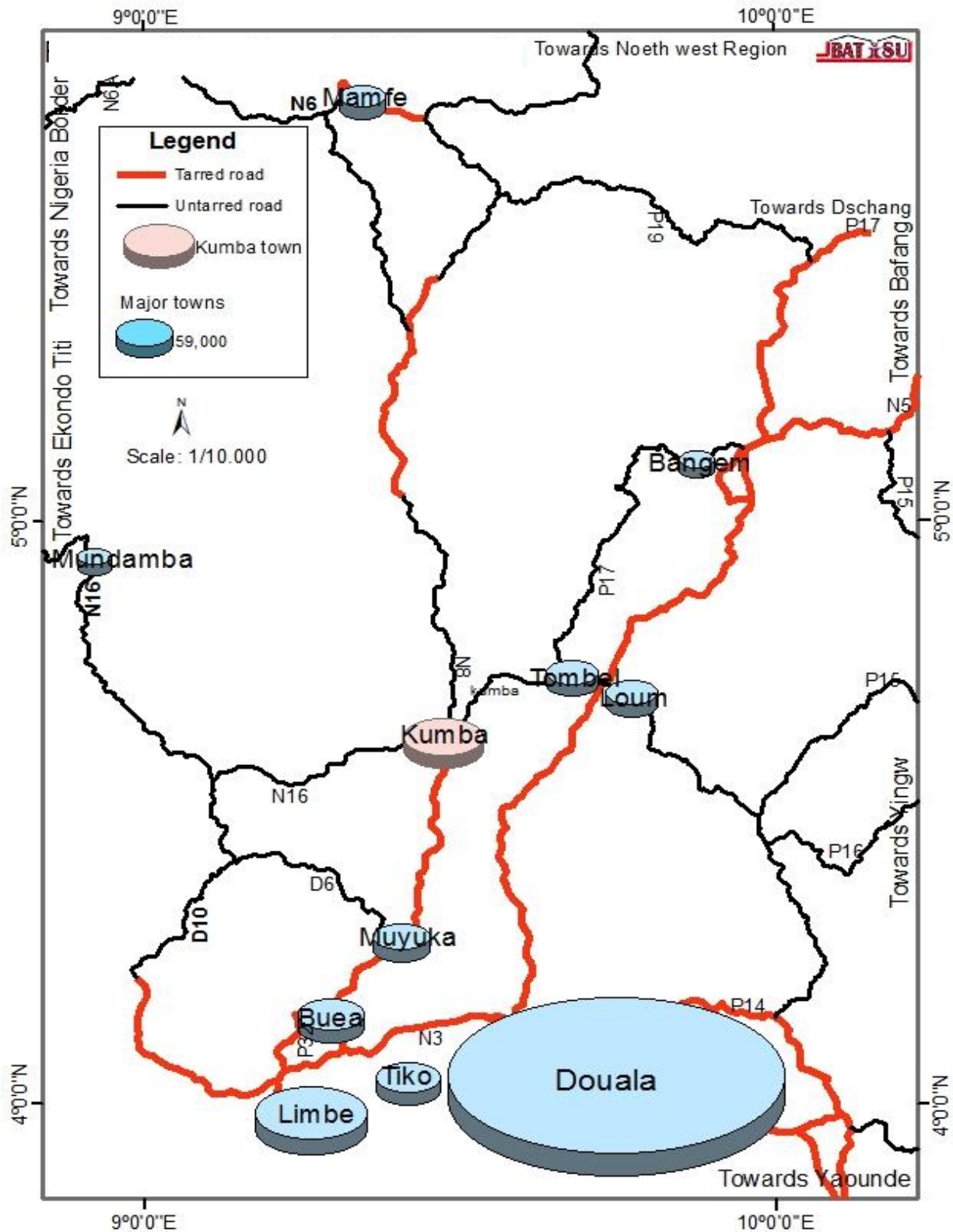
06	Kumba-Ikondo Titi-Mundemba	113	Poorly constructed and not tarred	Transport goods and passengers from and to Ndian and Nigeria
07	Kumba-Tombel-Bangem	81	Poorly constructed and not tarred	Transport goods and passengers from and to Kupe Manuguba

Source: National road networks map (MINTP)

**Table N° 2 : Settlements of sub-regional Hierarchy**

Item	Urban Centre	2012 Population	Position
01	Kumba	180 000	2 <sup>nd</sup>
02	Buea	14 6445	3 <sup>rd</sup>
03	Limbe	130 823	4 <sup>th</sup>
04	Tiko	130 711	5 <sup>th</sup>
05	Douala	2 142 193	1 <sup>st</sup>
06	Mundemba	15 558	11 <sup>th</sup>
07	Mamfe	34 222	9 <sup>th</sup>
08	Bangem	23 158	10 <sup>th</sup>
09	Tombel	61 670	7 <sup>th</sup>
10	Muyuka	93 307	6 <sup>th</sup>
11	Loum	42 947	8 <sup>th</sup>

Source : 3<sup>e</sup> General Human and Houses Census



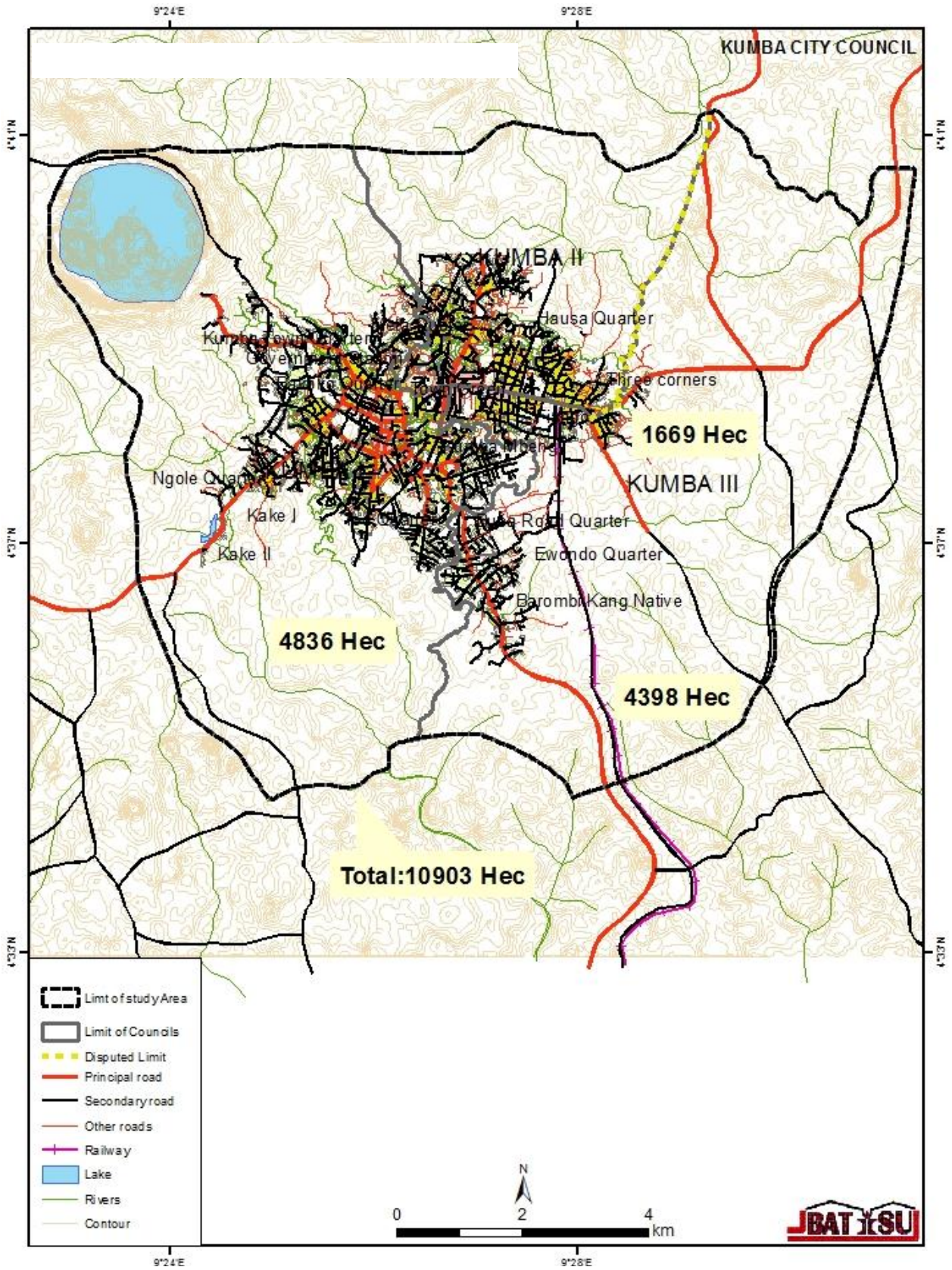
Source: 3e General Human and Houses Census and BATISU Sarl

Figure N° 1 : Settlements of regional functions

## **2.2 DELIMITATION OF PLANNING AREA**

Figure N° 1 shows proposed limits of the planning area up to 2035 and beyond. These limits have been proposed based on:

- a) The minimum carrying capacity of land ,within the planning area which can accommodate more than the projected population of Kumba by 2017;
- b) The need to control and curb the unnecessary urban sprawl which is costly to inhabitants, the council and the government;
- c) Existing physical features such as rivers, major streams and steep slopes which constrain urban expansion;
- d) Major roads, which divide, major land uses;
- e) Current direction of urban expansion;
- f) Availability of public utility networks and
- g) Availability of suitable land for urban development.



**Figure N° 2 : Limits of Planning Area**

### 2.2.1 Distribution of Land within the Planning Area.

Table N° 3 : Minimum Land Carrying Capacity within the planning area.

Zones	Area in hectares	%	Minimum Carrying capacity	Remarks
Protected areas not suitable for urban development	437	4	-	Construction and habitation prohibited
Area suitable for urban development	10 468	96	654 300	Occupation Varies with type of land use
<b>Total</b>	<b>10 905</b>	<b>100</b>	<b>654 300</b>	-

Source: Batisu Sarl

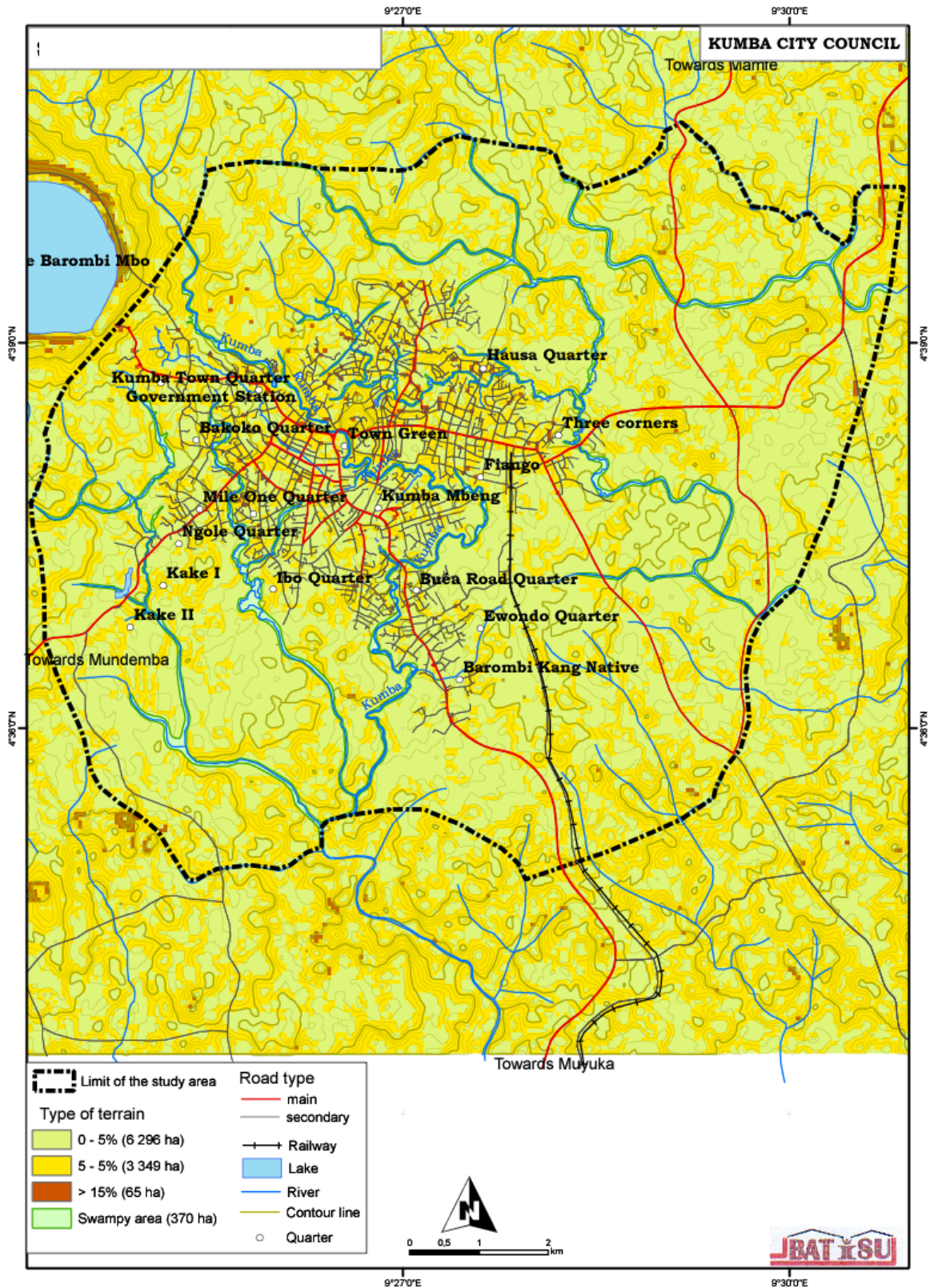
### 2.3 CHARACTERISTICS OF NATURAL SITE

The main Characteristics of the natural site of Kumba City include: -

- ❖ A rich water regime with wide watercourses;
- ❖ A large expanse of gentle slopes and stable soils fit for construction;
- ❖ Barombi Mbo Lake and surrounding highlands with steep slopes;
- ❖ A rich natural forest surrounding the existing urban area and;
- ❖ A hot humid climate.

The main constraints on urban expansion include:

- The steep slopes of Barombi Mbo highlands;
- The extensive watercourses which dissect the undulating gentle slopes.
- The steep slopes and deep valleys to the South



Source: BATISU Sarl

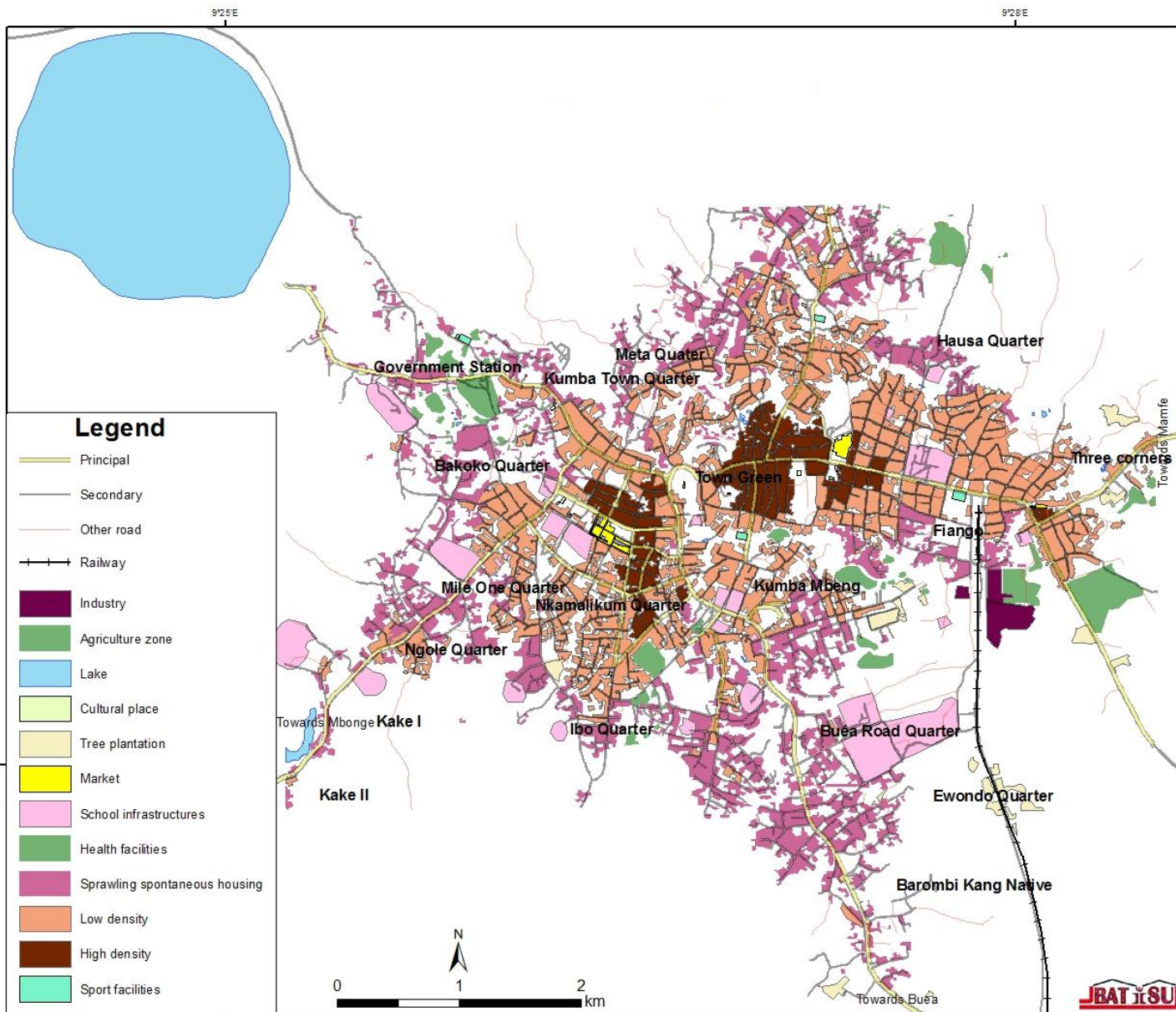
Figure N° 3 : Slope map of Kumba



## **2.4 CHARACTERISTICS OF MAN-MADE SITE**

The main characteristics of the man-made site include: -

- ❖ Concentration of commercial and service industrial activities around Kumba Central Market and along Kumba Commercial Avenue;
- ❖ Linear commercial activities along Kumba-Fiango; Kumba-Buea road and Kumba-Mbonge road;
- ❖ Low density residential Up-station, Kumba;
- ❖ High density residential in Fiango and Hausa Quarters;
- ❖ Concentration of administrative services Up-station, Kumba;
- ❖ Sprawling spontaneous mixed residential in the urban fringe areas;
- ❖ Concentration of cultural and civic activities in the central area of Kumba.



Source: BATISU Sarl

Figure N° 4 : Characteristics of Man-made Site

## 2.5 POPULATION PROJECTION

Table N° 4 shows the evolution of the population of Kumba city from 1967 to 2005.

**Table N° 4 : Population Growth between National Censuses**

<b>Census Year</b>	<b>Population</b>	<b>Growth rate</b>
1967	14.982	<b>Base year</b>
1976	42.000	<b>13.8 %</b>
1987	43.402	<b>0.3 %</b>
2005	144.268	<b>6.9 %</b>

**Source : BUCREP**

From 1967 to 1976, the population of Kumba experienced a very rapid increase from 14 982 to 42 000 with a growth rate of 13.8 % which could be explained by : -

- ❖ A large number of households which ran away from the Nigerian-Biafra civil war and were resident in Kumba;
- ❖ During this period, Kumba was playing a pivotal economic role in the South West and North West provinces and then West Cameroon;

Between 1976 and 1987, the population of Kumba experienced a slight growth of 0.3 % from 42 000 to 43 402. This sudden drop can be explained by: -

- ❖ The fact that most of the Nigerian refugee families left Kumba back to Nigeria
- ❖ After the 1972 unitary government, most business enterprises and entrepreneurs transferred to Douala and Yaoundé;
- ❖ The out migration from Kumba was exacerbated by the enclaved nature of Kumba due to very bad roads from Kumba to Loum, Limbe, Mundemba and Mamfe ;

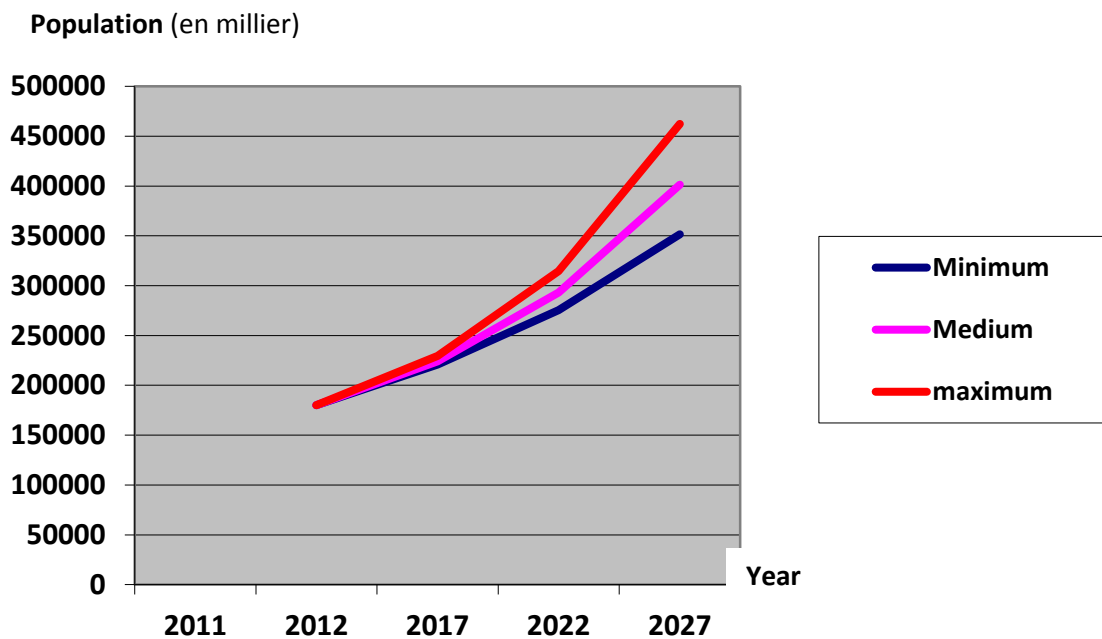
From 1987 to 2005, Kumba experienced a population growth rate of 6.9% as the population rose from 43 402 to 144 268 over a period of 18 years. This upward turn in population was due to: -

Between 2005 and 2012, the population of Kumba has been estimated to grow at 3.9% annually. Thus, by 2012, it is estimated to have a population of 179 903.

**Table N° 5 : Population Projection Variants : 2012- 2027**

Minimal Population Growth Rate			Medium Population Growth Rate		Maximum Population Growth Rate	
Period	Rate of growth	Projected Population	Rate of growth	Projected Population	Rate of growth	Projected Population
2012	4.0 %	179.903	4.0 %	179.903	4.0 %	179.903
2017	4.2 %	220.992	<b>4.5 %</b>	224.191	<b>5.0 %</b>	229.606
2022	4.5 %	275.396	<b>5.5 %</b>	293.003	<b>6.5 %</b>	314.580
2027	5.0 %	351.482	<b>6.5 %</b>	401.446	<b>8.0 %</b>	462.221

**Source : BUCREP**



**Graph N° 1 : Alternative Trends of Population Growth: 2012 - 2027**

Table N° 6 and graph N° 1 show three variants of population projections for Kumba City from 2012 to 2027

## 2.6 LAND REQUIRED FOR URBAN DEVELOPMENT IN KUMBA

At the moment, the limits of urbanization in Kumba are informal as they are determined by the premature invasion and conversion of rural land into urban land. Consequently, urban development has taken more land than necessary as the town is sprawling without control. Within the present urban limits much buildable land is yet un-built and unoccupied.

**Table n° 6: Comparison of gross residential density**

Total area of land within the present limits of urbanization in Kumba (Area in hectares)	Gross residential density of Kumba (persons/hectares)	Gross residential density of Yaounde (persons/hectares)
<b>4000</b>	<b>45</b>	<b>70</b>

Source: 3e General Human and Houses Census and BATISU Sarl

The gross residential density of Kumba is **45** persons per hectare. This factor is low compared to the Gross residential density of Yaounde which is 70 persons per hectare.

The feasible gross residential density for Kumba at horizon 2027 stands at 60 persons per hectare for the projected population by 2027 from the total land carrying capacity of the planning area.

**Table n°7: Determination of areas suitable for urban development**

Zones	Area in hectares	%	Minimum Carrying capacity	Remarks
Protected areas not suitable for urban development	437	4	-	Construction and habitation prohibited
Area suitable for urban development	10 468	96	654 300	Occupation Varies with type of land use
<b>Total</b>	<b>10 905</b>	<b>100</b>	<b>654 300</b>	-

Source: BATISU Sarl

Considering a gross residential density of 60 persons per hectare, the minimum carrying capacity stands at about 578 700 inhabitants. This supposes a prevision of a larger surface area.

## 2.7 DEVELOPMENT SCENARIOS

The objectives of delimiting an urban area are: -

- a) To stop the premature invasion and occupation of valuable rural land by urban development
- b) To make rational use of available urban land, infrastructure and services
- c) To minimize the need for the premature extension of utility networks and basic services

In practice, there are three alternative ways of accommodating the expected increase in population over the planning period: -

- 1) Allow the present system of un-controlled urban sprawl;
- 2) Maintain the present limits of urbanization and encourage the infilling of vacant plots and the construction of high rise buildings to accommodate population growth;
- 3) Progressively extend the limits of urban development to accommodate urban growth and expansion.

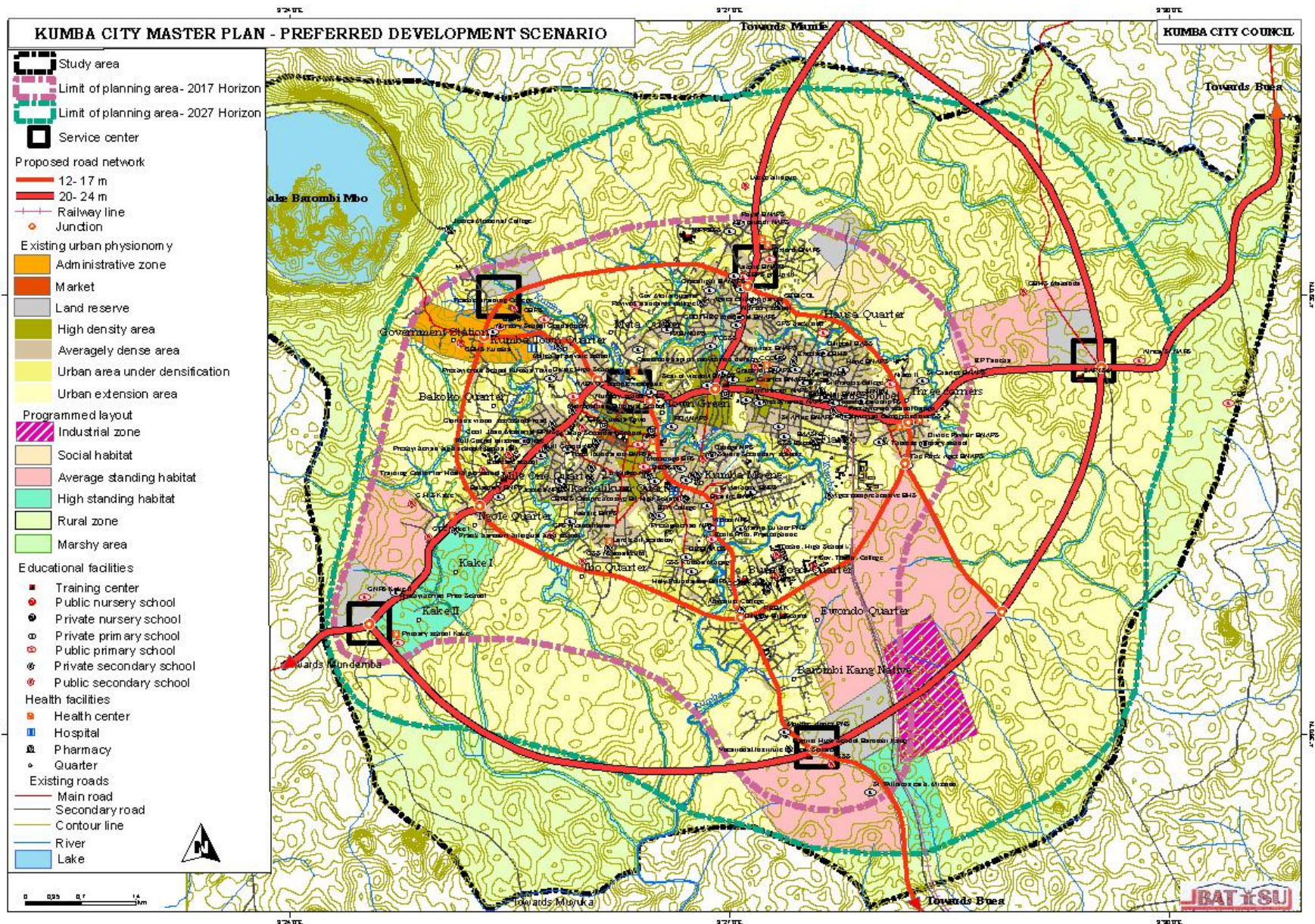


Figure N° 5 : Preferred Development Scenario

### ***Preferred Development Scenario***

- 1) Maintain the present limits of urbanization and encourage the infilling of vacant plots and the construction of high rise buildings to accommodate population growth: 2012 - 2017;
- 2) Progressively extend the limits of urban development to accommodate urban growth and expansion: 2017 - 2027.

In the short term, 2012 to 2017, the second alternative contained in minimal scenario is feasible while in the medium and long terms (2017 and beyond) the medium and maximum scenarios are feasible.

## **2.8 RECOMMENDATION**

It is recommended that urban development within the planning period should be concentrated within the proposed planning area. This requires that:

- a) The city council should make necessary arrangements to officially declare the urban perimeter to conform with the limits of the planning area;
- b) Development out of the planning area should be limited to rural activities;
- c) The subdivision of land outside the planning area into urban plots should be restricted;
- d) The extension of public utility networks outside the planning area should be controlled;
- e) The location of urban social facilities and services should be concentrated within the planning area.



**3.0 URBAN SPATIAL STRUCTURE  
AND ORGANIZATION**

**PLANNING REPORT**



## **3.0 URBAN SPATIAL STRUCTURE AND ORGANIZATION**

### **3.1 EXISTING SITUATION**

The existing spatial structure and organization of Kumba City is largely characterized by: -Generally sprawling urban development

- ❖ Through traffic penetrates the city centre
- ❖ Dense fabric of roads without a clear functional hierarchy
- ❖ Inner grid pattern in the central area
- ❖ Linear pattern of development along major roads
- ❖ Unplanned and unstructured dense urban development in Fiango, Hauasa and Kosala quarters
- ❖ Unplanned sprawling peripheral land development

### **3.2 OBJECTIVES**

The central objective is to provide a spatial framework and organization which can continuously accommodate the growth and expansion of Kumba City.

### **3.3 THE SPATIAL STRUCTURE OF KUMBA CITY**

#### **3.3.1 Guidelines for Spatial Structure and Organisation of Kumba**

The proposed spatial structure and organization of Kumba is based on the existing pattern of urban road network and land development, the topography and water regime. It is also based on the need to create freeways which can take traffic from outside Kumba to Loum, Mamfe, Mundemba and Fako Division without passing through urbanized part of Kumba.

Kumba City should be organized into several self contained urban districts where the residents are provided with their daily needs and should only travel to the city centre for city wide requirements.

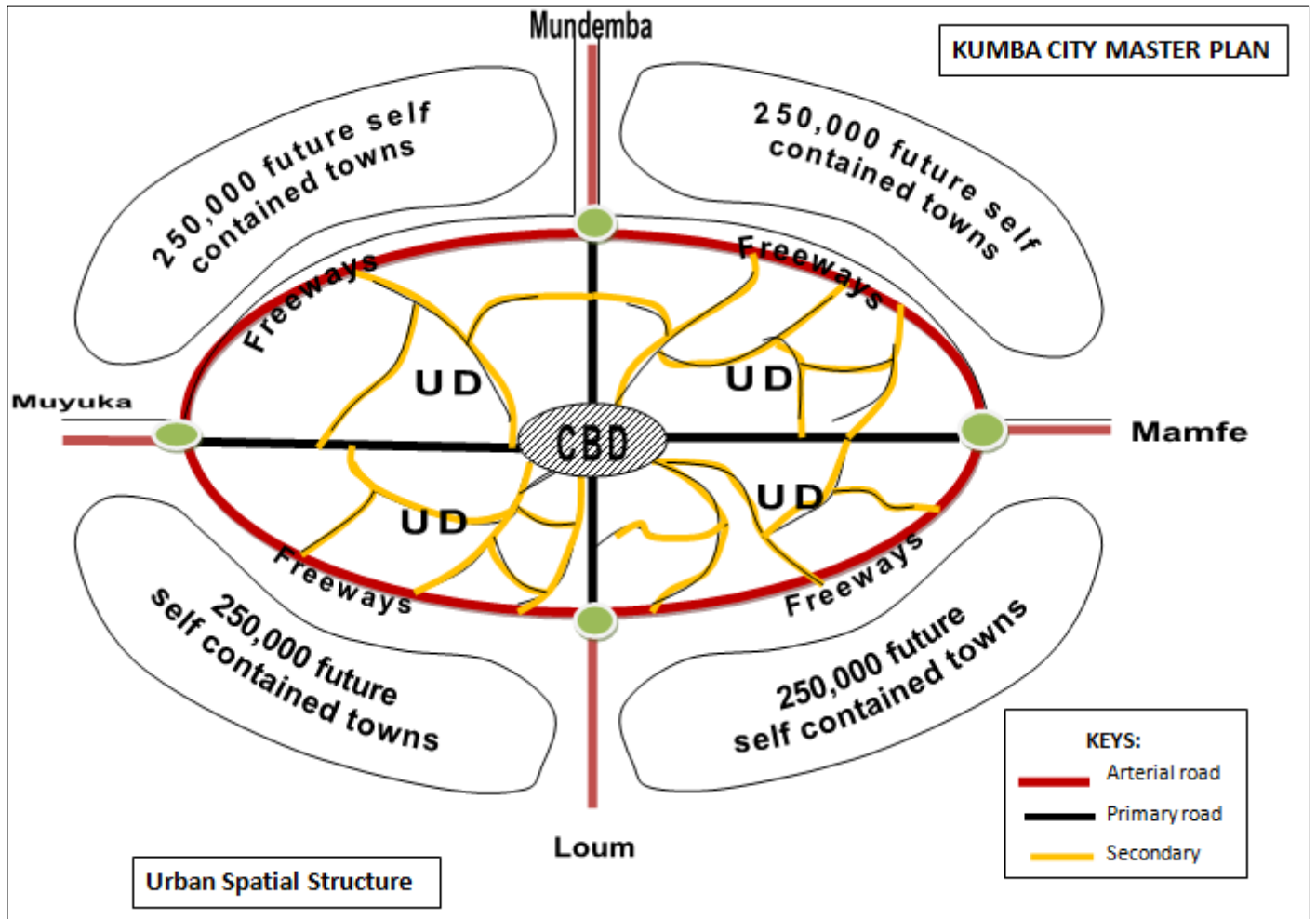


Figure N° 6 : Model of urban structure of Kumba

### 3.3.2 Elements of Spatial Structure and Organization

The main elements of Kumba spatial structure include:

- ❖ Kumba City Area
- ❖ Self contained urban districts
- ❖ Residential neighbourhoods
- ❖ Residential clusters
- ❖ Residential blocks
- ❖ Building plots

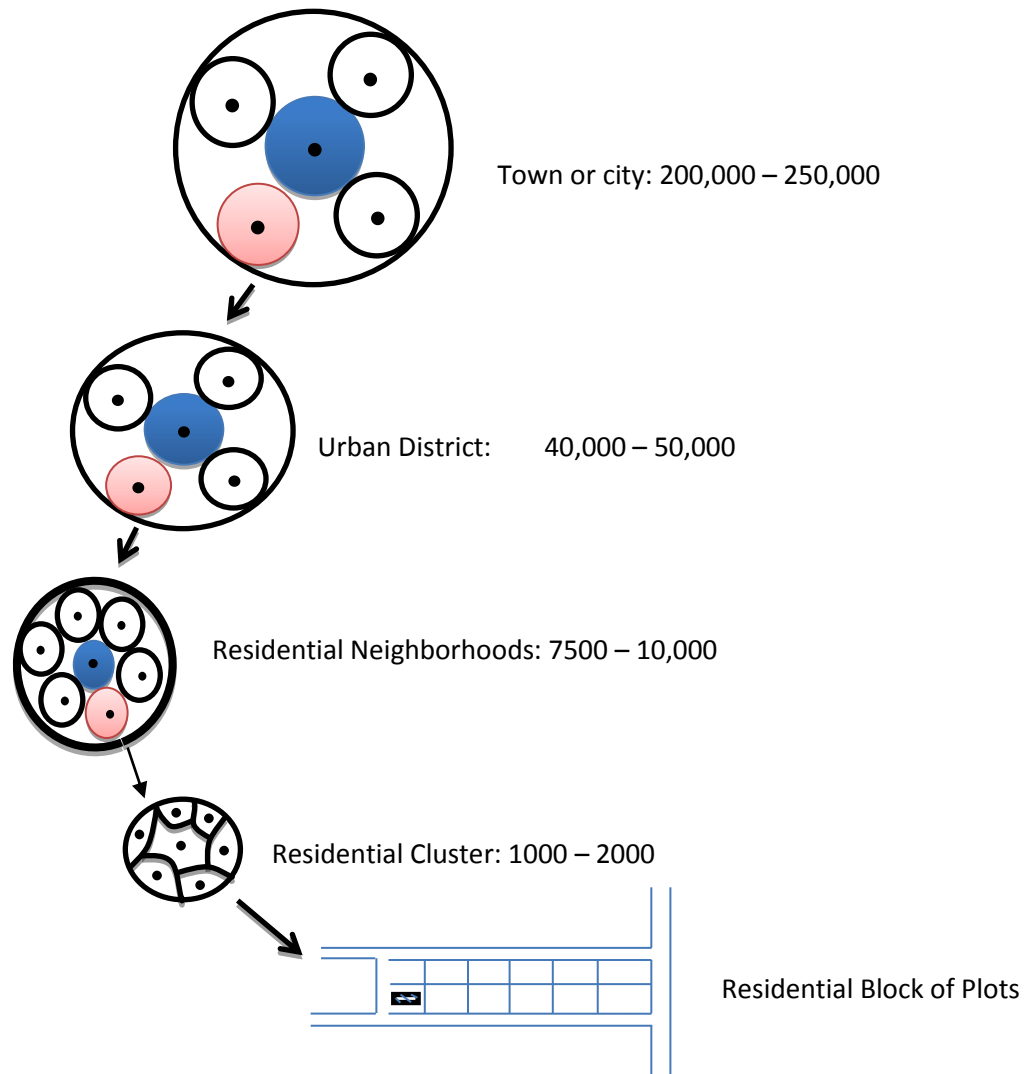
Kumba has a population of about 179 903 people and likely to grow to over 462 221 by 2027. The proposed elements of urban structure for Kumba should be made up of :

**Table N° 8: Proposed populations sizes of elements of urban spatial structure**

Item	Spatial Structure	Population
01	Kumba City	More than 200,000
02	Urban Districts	50,000 – 100,000
03	Residential neighborhoods	5,000 – 10,000
04	Residential clusters	500 – 1,000
05	Residential blocks	50 – 100

Source: BATISU Sarl

### 3.1.3 Concept of Urban Spatial Structure



**Figure N° 7 : Elements of Spatial Structure and Organization of Kumba**

### **3.4 SPATIAL STRUCTURE AND ORGANIZATION OF KUMBA CITY**

Kumba City area is divided into six functional self contained urban districts: -

- ❖ Kumba Inner Area
- ❖ Kumba Southeast
- ❖ Kumba Southwest
- ❖ Kumba Northeast
- ❖ Kumba North
- ❖ Kumba West

Each urban district shall be subdivided into several residential neighbourhoods and each neighbourhood into several residential clusters and building blocks.

### **3.5 PROPOSED INTERNAL SPATIAL STRUCTURE**

#### **3.5.1 Kumba Inner Area**

- ❖ Kumba Town
- ❖ Fiango
- ❖ Hausa Quarter
- ❖ Buea road
- ❖ Mbonge road

#### **3.5.2 Kumba Southeast**

- ❖ Ewondo Quarter
- ❖ Barombi Kang
- ❖ Southeast of Kumba Water

#### **3.5.3 Kumba Southwest**

#### **3.5.4 Kumba Northeast**

#### **3.5.5 Kumba West**

#### **3.5.6 Kumba North**

### 3.6 HIERARCHY OF KUMBA SERVICE CENTRES

From the existing configuration and structure of Kumba City a five level of functional service centres can be created: -

- a) Kumba City Central Business District (BCD)
- b) Three sub-divisional service centre
- c) District service centres within each sub-division
- d) Neighbourhood centre
- e) Residential cluster centre

#### a) **Elements of Kumba City Central Business District (BCD)**

- ❖ Kumba central market
- ❖ Kumba central bus station:
  - Kumba City Municipal buses
  - Long distance buses from:
    - ✓ Yaoundé
    - ✓ Nigeria
    - ✓ Bamenda
    - ✓ Others
- ❖ Meme divisional public office area
- ❖ Kumba City Cultural and Civic Centre:
  - City cultural centre
  - City museum
  - City community hall
  - City arts theatre
  - City library
  - City open air amphi theatre
  - Indoor sports complex
- ❖ Kumba City Parks and Gardens
- ❖ Kumba City Modern Shopping Mall
  - Modern shops
  - Recreational facilities
  - Entertainment facilities
  - Casinos
  - Banking services
  - Touristic facilities and services
  - Restaurants
  - Car sales
  - Car rental services
  - Offices
  - Banquet halls
  - Conference facilities
  - Etc.,

**b) Elements of Kumba Sub-divisional Service Centre**

- A sub-divisional market
- A sub-divisional public office area
- A sub-divisional shopping centre
- A sub-divisional commuter motor park or bus station
- A sub-divisional cultural and civic centre
- A sub-divisional park and gardens
- A sub-divisional council office area

**c) Elements of a District Centre**

- District community hall
- District shops
- District parks and gardens
- District sports and recreation centre
- District secondary school

**d) Elements of a Neighborhood Centre**

- Neighborhood shops
- Neighborhood hall
- Neighborhood primary school
- Neighborhood library
- Neighborhood playground
- Neighborhood park and gardens

**e) Elements of a Cluster Centre**

- Corner shop
- Daycare centre
- Reading room

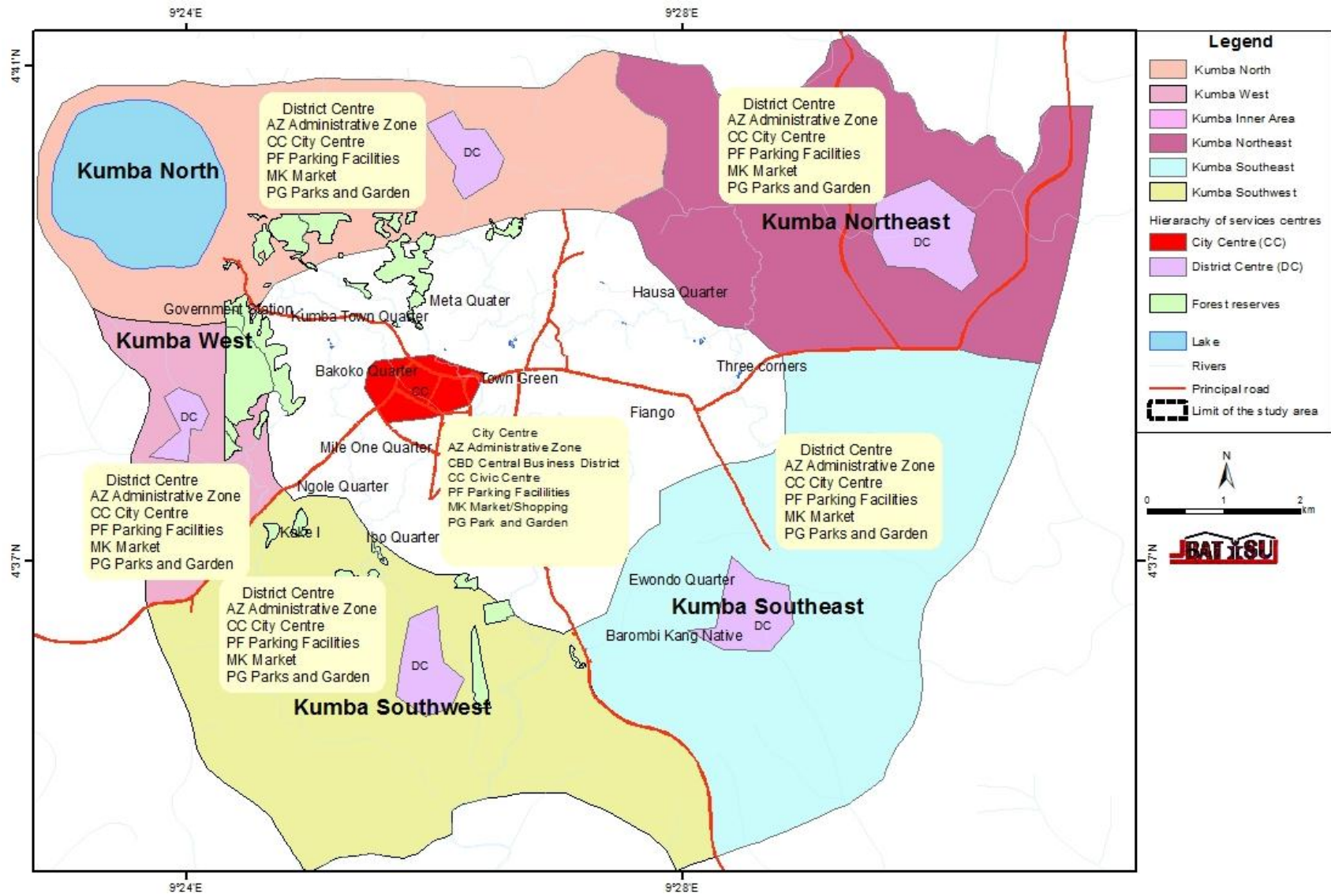


Figure N° 8: Proposed Hierarchy of service Centres



### 3.7 LAND ALLOCATION BY SPATIAL UNITS

Table N° 9 : Land Allocation by Spatial Units

Item	Special units	Estimated Area	Unbuildable Land	Buildable Land	Gross Residential Density	Estimated Population 2027
01	Kumba Inner Area	2487	99,48	2387,52	60	149220
02	Kumba Southeast	2232	89,28	2142,72	60	133920
03	Kumba Southwest	2003	80,12	1922,88	60	120180
04	Kumba Northeast	1764	70,56	1693,44	60	105840
05	Kumba North	1847	73,88	1773,12	60	110820
06	Kumba West	571	22,84	548,16	60	34260
<b>Total</b>		<b>10905</b>	<b>436,2</b>	<b>10468,8</b>	<b>10468,8</b>	<b>654300</b>

Source: BATISU Sarl

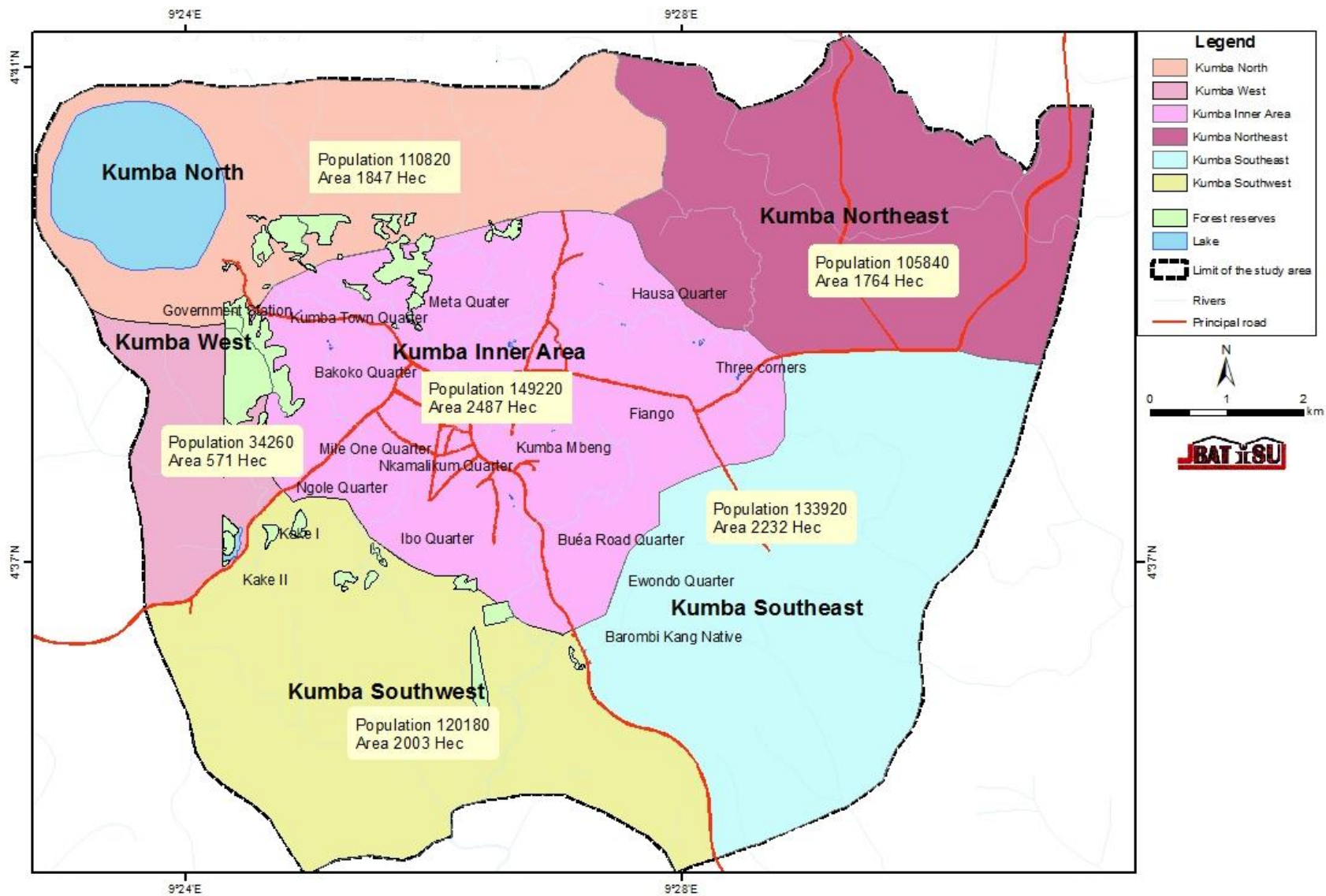


Figure N° 9: Urban Spatial Structure and Land Allocation by Spatial Units of Kumba

### **3.8 PRIORITY PROJECTS OF URBAN SPATIAL STRUCTURE**

**3.8.1 Official delimitation of Kumba City Planning Area**

**3.8.2 Delimitation of proposed urban districts**

**3.8.3 Carry out five yearly censuses of Kumba City Area**

**3.8.4 Acquisition of satellite images to cover the whole planning area**

## Project Sheet

**Table N° 10: Project sheet**

Code	Nomenclature	Time Frame	Present State	Objectives	Potential Sponsors	Beneficiaries	Estimated Cost (FCFA)
3.6.1	Official delimitation of Kumba City Planning Area	2013	Newly proposed	Provide legal basis for planning	KCC	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	5,000,000
3.6.2	Delimitation of proposed urban districts	2013	Proposed	Provide legal basis for planning	KCC	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	5,000,000
3.6.3	Carry out five yearly censuses of Kumba City Area	2015	Conflicting population statistics	Provide reliable statistics for planning	KCC	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	50,000,000
3.6.4	Acquisition of satellite images to cover the whole planning area	2015	Partial coverage of proposed planning area	Provide a base for further planning	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ MINH DU</li> </ul>	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> <li>▪ MINH DU</li> </ul>	15,000,000

Source: BATISU Sarl

## **KUMBA CITY MASTER PLAN**

# **4.0 PROPOSED LAND USE PLAN**

## **PLANNING REPORT**



# **4.0 PROPOSED LAND USE PLAN**

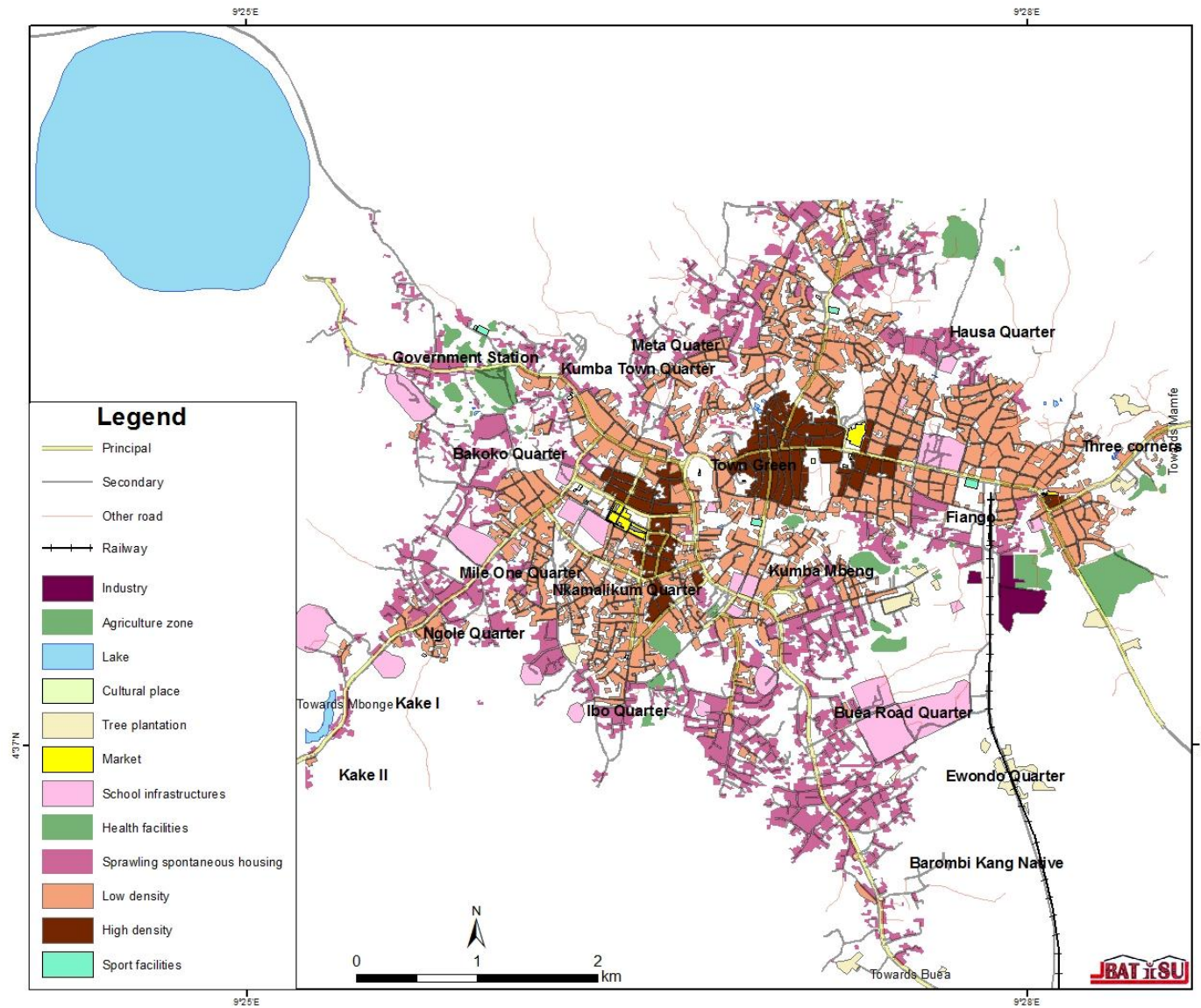
## **4.1 OBJECTIVES OF LAND USE PLAN**

The proposed land use plan for Kumba aims at achieving the following objectives:

- ❖ To determine land uses before land is subdivided, sold and occupied;
- ❖ Gradually segregate land uses in already built and developing areas and;
- ❖ Ensure the respect and application of land use control procedures in land transactions, the issue of town planning certificates and building permits;
- ❖ Facilitate access to land for community and public facilities and utilities in appropriate locations and on suitable sites.

## **4.2 EXISTING LAND USE PATTERN**

The existing land use pattern in Kumba has largely been determined by informal land transactions between those who own and occupy land and those who need and demand land. Land is largely in the hands of customary and private land owners. Community, municipal and government authorities find it difficult to acquire adequate land in appropriate locations and suitable sites for community and public facilities and utilities. Consequently, most community and public facilities are located largely where land was available.



Source: BATISU Sarl

Figure N° 10: Existing land use pattern

### 4.3 PROPOSED MACRO LAND USE CATEGORIES

Spatial evolution of Kumba should be guided by the following factors: -

- a) The creation of distinct land uses;
- b) The moderate segregation of residential land uses;
- c) The distribution of land uses;
- d) The removal of service and commercial activities away from major roads by:
  - Creating distinct service centers;
  - Increasing accessibility of land for urban development.

#### Macro Land Use Categories

- ❖ Commercial
  - Central Business District
  - Kumba Shopping mall
  - Service centre shopping centres
- ❖ Residential
  - Low density high income: 20%
  - Medium density medium income: 30%
  - High density low income: 45%
  - Mixed commercial residential: 5%
- ❖ Administrative areas
  - Divisional office area
  - Sub-divisional office area
- ❖ Civic and cultural facilities
- ❖ Protected areas
- ❖ Open spaces
- ❖ Sports and recreation
- ❖ Public and community facilities
- ❖ Industrial land use
  - Heavy industry
  - Agro-industry
  - Maintenance industry
  - Service industry
  - Cottage industry
- ❖ Public utility networks and right-of-ways



#### **4.4 ELEMENTS OF URBAN DISTRICT LAND USE PLAN**

A detailed land use plan should eventually be prepared for each urban district showing the following elements: -

- ❖ Urban district service centre
- ❖ Neighborhood centres
- ❖ District service industrial area
- ❖ Residential neighborhoods:
  - High density for low income households
  - Medium density for medium income households
  - Low density for high income households
  - Mixed residential/commercial
- ❖ Parking facilities
- ❖ District parks and gardens
- ❖ Government general secondary and high school
- ❖ Government secondary technical and high school
- ❖ District playground and sports facilities
- ❖ District hospital

#### **4.5 LAND USE ZONING REGULATIONS**

Specific land use zoning regulations shall be prepared for each urban district and neighborhood plan.

##### **4.5.1 Processes and procedures of land use control measures shall be clearly defined for:**

- ❖ Location and siting of activities
- ❖ Control of land subdivisions
- ❖ Control of land transactions
- ❖ Planning certificate
- ❖ Building permits
- ❖ Modification of land uses

**4.5.2 Micro land use rules and regulations shall be prepared and adopted as council planning bye-laws**

**4.5.3 Land use Standards shall be prepared and enforced by KCC and Kumba I, II and III.**

#### **4.6 LAND USE IMPLEMENTATION PROGRAMME**

**4.4.1 Preparation of Urban District Land Use Plans**

**4.4.2 Preparation of Neighborhood Plans in Priority Development Area (PDA)**

**4.4.3 Preparation of CBD and Urban District Service Centre Plans**

**4.4.4 Preparation of Kumba City land use rules and regulations**

## Project Sheet

**Table N°11: Project Sheet**

Code	Nomenclature	Time Frame	Present State	Objectives	Potential Sponsors	Beneficiaries	Estimated Cost
4.4.1	Preparation of Urban District Development Plans	2013-2015	Not available	Ensure orderly development	<ul style="list-style-type: none"> <li>▪ MINH DU</li> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	<ul style="list-style-type: none"> <li>▪ MINH DU</li> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	150 000 000
4.4.2	Preparation of Neighborhood Plans in Priority Development Area (PDA)	2013-2027	Not available	Ensure orderly development	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> <li>▪ Land owners</li> </ul>	25 000 000
4.4.3	Preparation of CBD and Urban District Service Centre Plans	2015-2017	Not available	Ensure orderly development	<ul style="list-style-type: none"> <li>▪ KCC</li> </ul> <p>Kumba I, II and III</p>	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> <li>▪ Land owners</li> </ul>	60 000 000
4.4.4	Preparation of Kumba City land use rules and regulations	2015	Not available	Provide basis for development control	<ul style="list-style-type: none"> <li>▪ MINH DU</li> <li>▪ KCC</li> </ul> <p>Kumba I, II and III</p>	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> <li>▪ Land owners</li> </ul>	15 000 000

Source: BATISU Sarl

## **KUMBA CITY MASTER PLAN**

# **5.0 NETWORKS AND INFRASTRUCTURE**

## **PLANNING REPORT**



# 5.0 NETWORKS AND INFRASTRUCTURE

## 5.1 ROAD NETWORKS

### 5.1.1 Objectives

The overall objective is to provide Kumba City with a modern, coherent and functional road networks which excludes through traffic and provides choices of routes and modes of travel to activity areas by:

- ❖ Reconstructing and rehabilitating existing urban road networks and infrastructures
- ❖ Extending urban road networks
- ❖ Ensuring regular maintenance of urban road networks
- ❖ Upgrading arterial roads into Kumba
- ❖ Constructing Kumba City freeways which by-pass Kumba City.

### 5.1.2 Hierarchy of Urban Roads

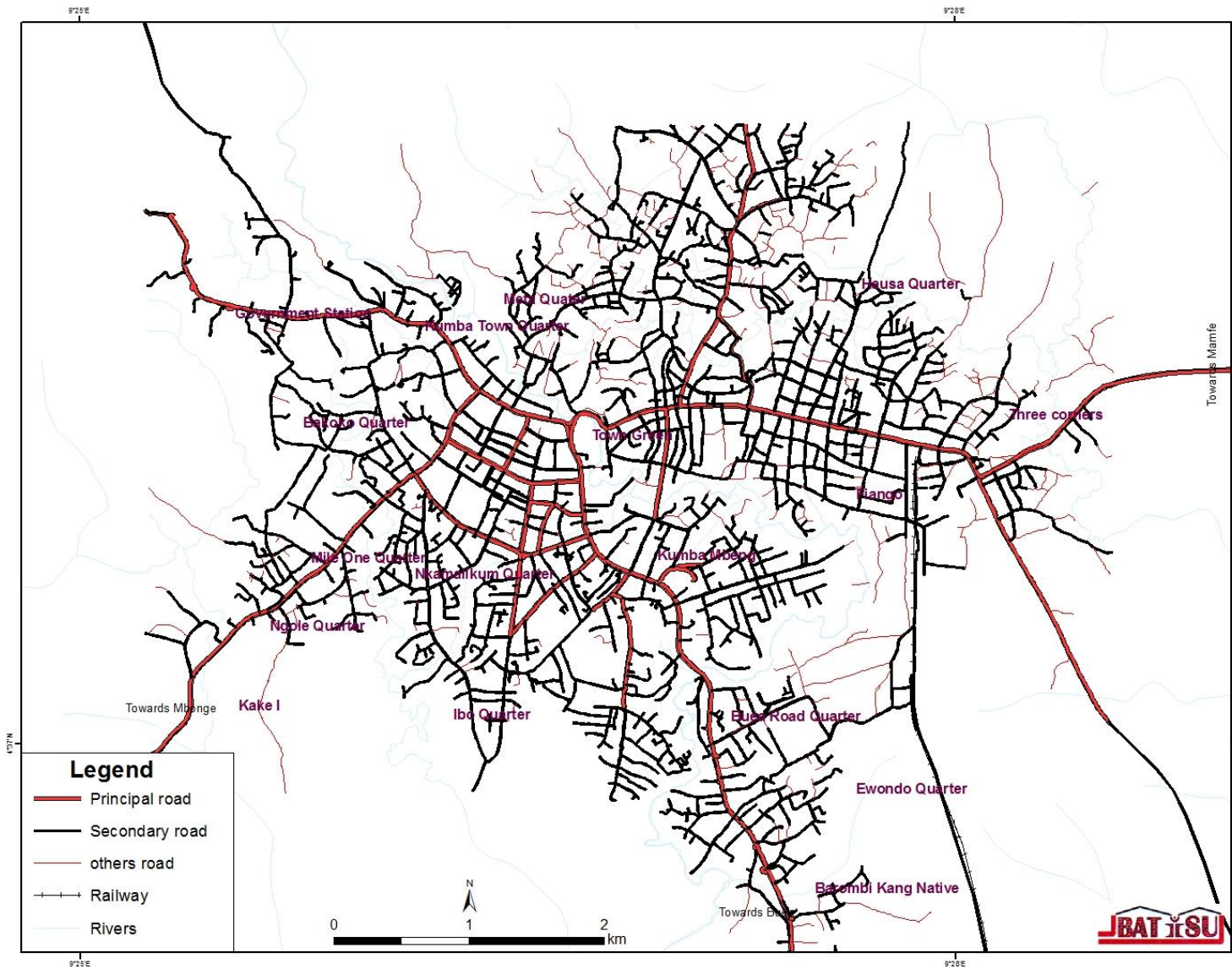
To ensure the proper functioning of an urban road network, a coherent hierarchy of roads based on functional classification is absolutely necessary as follows:

- ❖ Arterial roads which carry traffic from outside and bring into Kumba City
- ❖ Primary roads which carry traffic from arterial roads and distributes to urban districts
- ❖ Secondary roads which take traffic from primary roads and distribute within urban districts
- ❖ Tertiary roads which take traffic from secondary roads and distribute within neighbourhoods
- ❖ Access roads which distribute traffic to individual plots

### 5.1.3 Existing Road Network

The existing state of roads in Kumba is characterized by: -

- ❖ Incoherent and degraded urban road networks
- ❖ Unplanned hierarchy of urban roads
- ❖ Poorly designed road networks
- ❖ Poorly constructed road networks
- ❖ Irregular maintenance of existing roads



Source: BATISU Sarl

Plan N° 11 : Existing road networks

## 5.1.4 Proposed Road Networks

### 5.1.4.1 Arterial Roads

- ❖ Muyuka-Kumba road
- ❖ Loum-Kumba road
- ❖ Mamfe Kumba road
- ❖ Mundemba road

### 5.1.4.2 Freeways

- ❖ Buea road Fiango junction freeway
- ❖ Buea road to Mbonge road freeway
- ❖ Mamfe road junction to Mbonge freeway
- ❖ Mamfe road junction Fiango freeway

### 5.1.4.3 Primary Roads

- ❖ Kumba-Buea road
- ❖ Kumba-Fiango road
- ❖ Kumba-Mbonge road

### 5.1.4.4 Secondary Roads

Priority secondary road networks within area covered by satellite images are shown in figure 5.1.2 below. Future primary and secondary roads shall be determined later during the preparation of urban district plans.

### 5.1.4.5 Kumba Public Right-of-ways (PRW's)

**Table N°12: Kumba Public Right-of-ways**

Item	Hierarchy	PRWs	Setbacks from axis of road	Restrictions
1.0	Arterial	-	-	-
1.1	National highways	60m	30m	No direct access of property
1.2	Freeways	50m	25m	No direct access of property
1.3	Provincial highways	50m	25m	No roadside parking
1.4	Divisional highways	40m	20m	No roadside

				parking
1.5	Farm to market roads	10m	5m	-
2.0	Primary distributors	40m	20m	-
3.0	Secondary distributors	30m	15m	-
4.0	Tertiary toads	25m	12.5m	-
5.0	Access roads	10m	5m	-

#### 5.1.4.6 Technical Details

**Table N°13: Technical Details**

Item	Hierarchy of Roads	Carriage-ways	Islands	Drainage	Side walks	Total width	PRW's
01	Arterial roads	14.0 m		3.0m	3.0m	20.0m	-
02	Freeways	28.0m	3.0	3.0m	3.0m	37.0m	-
03	Primary roads	14.0m	1.5	3.0mm	3.0m	21.5m	-
04	Secondary roads	7.0m	None	3.0m	3.0m	13.0m	-
05	Tertiary roads	7.0m	None	3.0m	1.5m	11.5m	-
06	Access roads			2.0m	1.0m	3.0m	-
07	Footpaths and walkways	3.0m	None	1.0m	None	4.0m	-



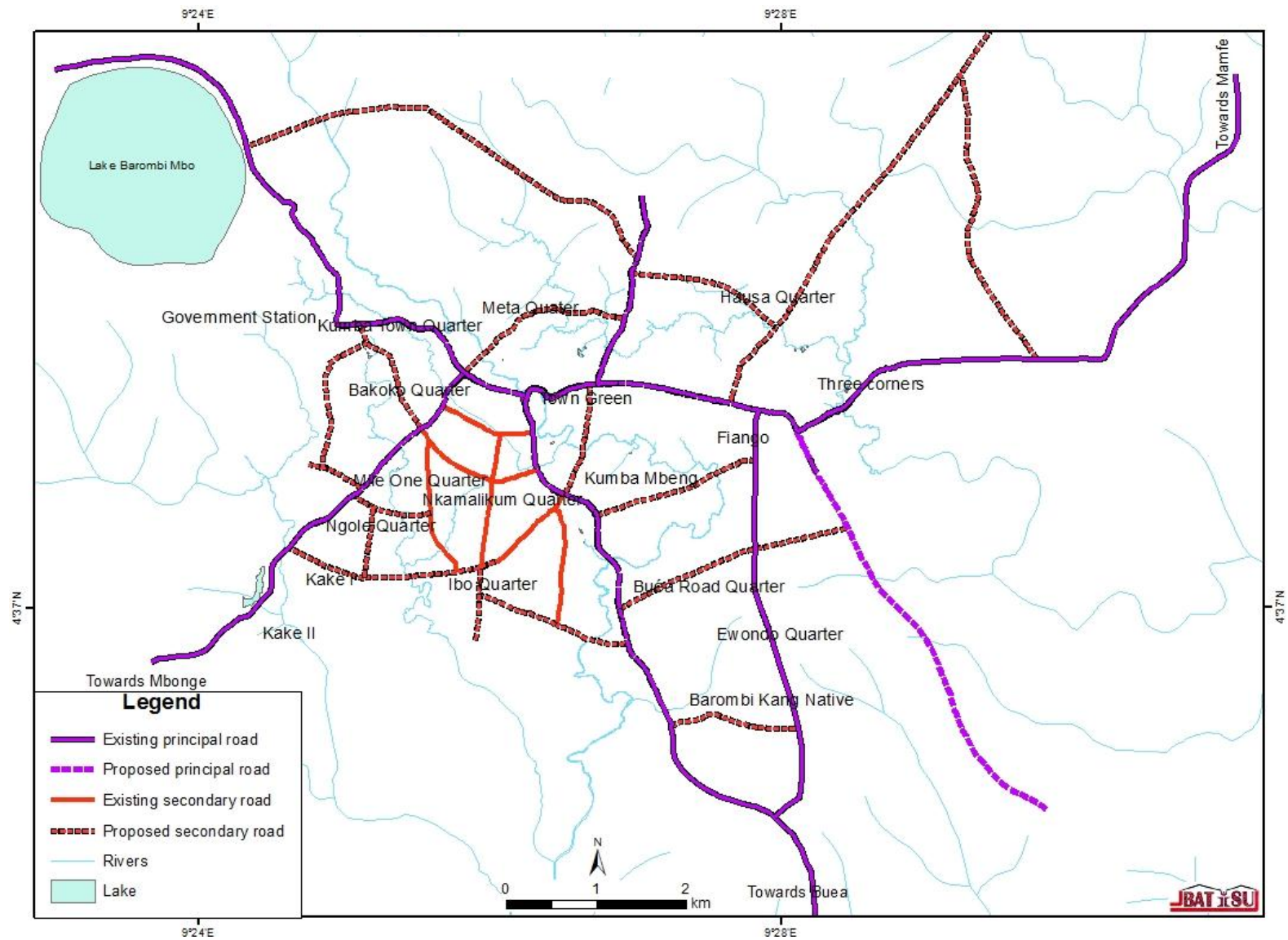
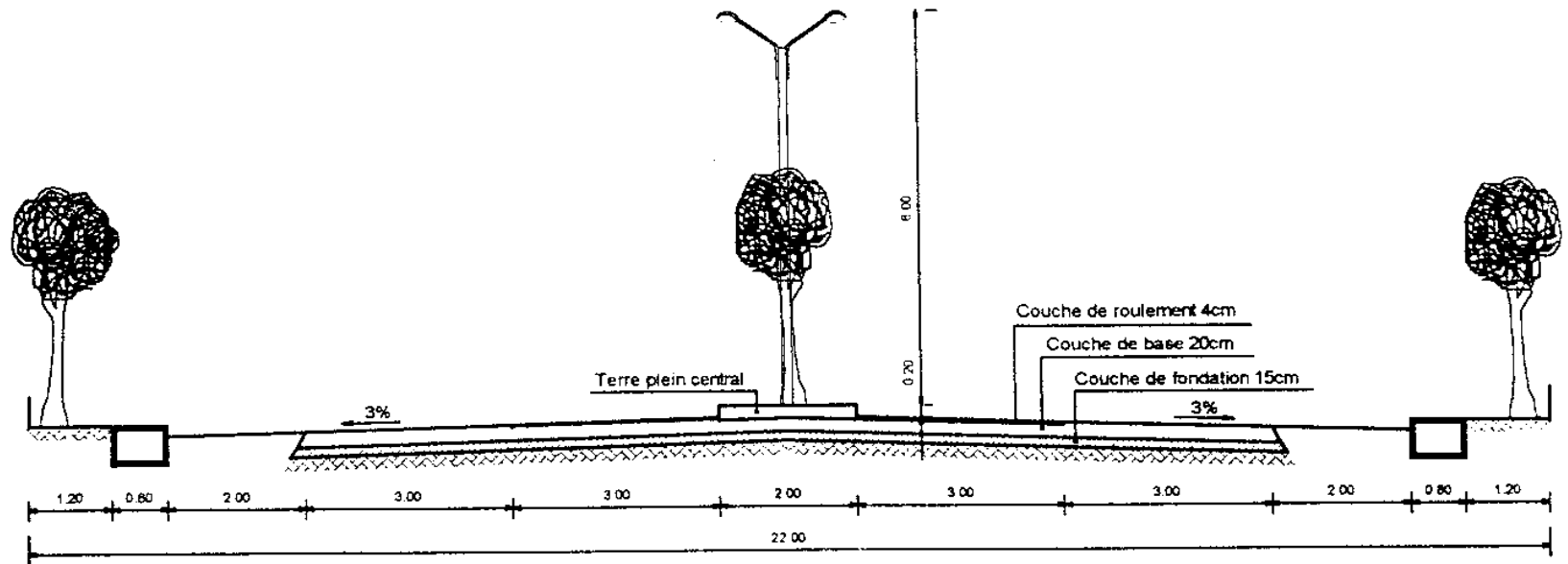


Figure N° 12 : Proposed Hierarchy of Road Networks

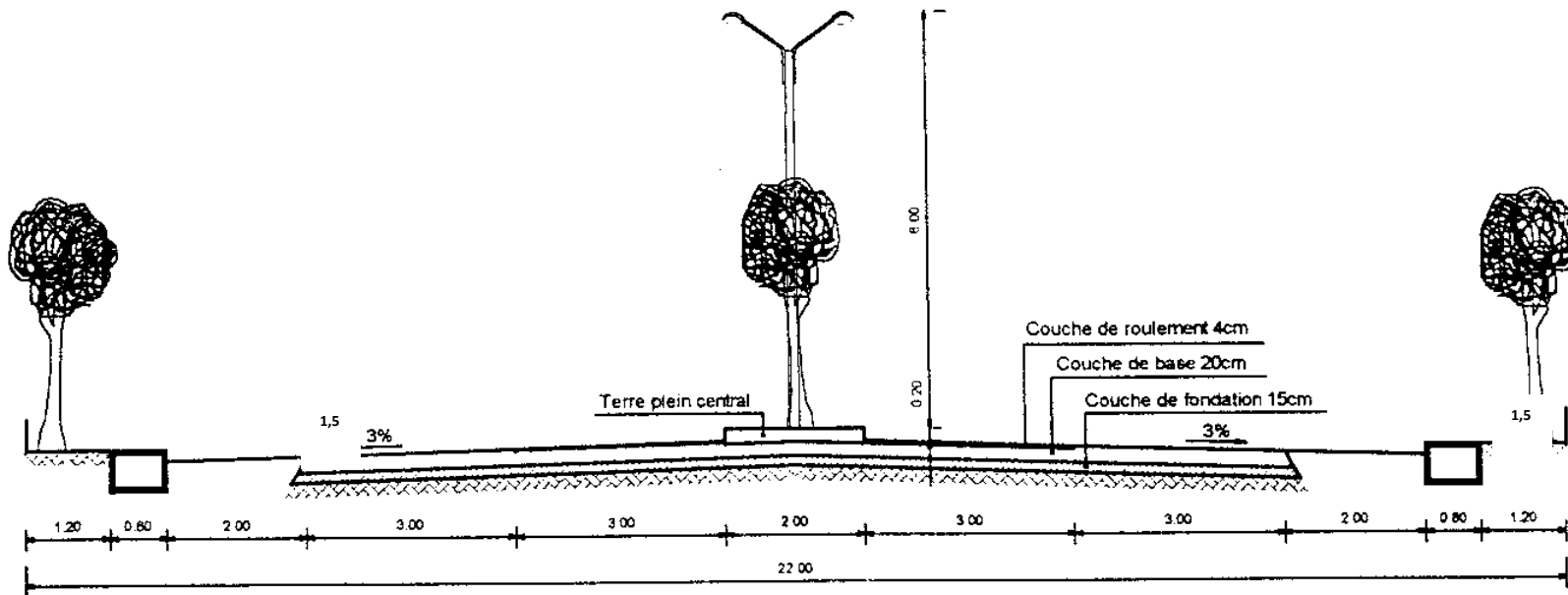
5.1.4.6 Typical Cross Sections of Roads

Typical Cross Sections of Arterial, Primary and Secondary Roads



Source: BATISU Sarl

Graph N° 2 : Typical Cross Sections of Arterial and Primary 30 m (scale : 1/100<sup>e</sup>)



Source: BATISU Sarl

Graph N° 3 : Typical Cross Sections of Primary and Secondary Roads 22 m (scale : 1/100<sup>e</sup>)

### 5.1.4.8 Estimated Lengths of Priority Roads

Table n°14: Estimated Lengths of Priority Roads

Item	Roads	Lengths	Future State
01	Primary roads	5,3	modern, coherent and functional
02	Secondary roads	77,3	modern, coherent and functional
03	Arterial roads	For memory	modern, coherent and functional
04	Tertiary roads	For memory	modern, coherent and functional

Source: BATISU Sarl

## 5.1.5 Priority Projects

### 5.1.5.1 Rehabilitation of tarred urban roads

### 5.1.5.2 Upgrading of existing primary roads

### 5.1.5.3 Upgrading of existing secondary roads

### 5.1.5.4 Extension of primary and secondary road networks

## 5.2 RAIL NETWORK

The extension and upgrading of the rail line and facilities to Kumba depends to a large extent on nation policies and decisions. However, Kumba has to be prepared to accommodate the impacts and ramifications of an eventual extension and upgrading of the railway Facilities.

## Project Sheet

**Table N° 4 : Project Sheet**

Code	Nomenclature	Time Frame	Present State	Objectives	Potential Sponsors	Beneficiaries	Estimated Cost
5.1.5.1	Rehabilitation of tarred urban roads	2015-2017	Degraded	Prolong life span	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ MINH DU</li> <li>▪ Funding partners</li> </ul>	<ul style="list-style-type: none"> <li>▪ Road users</li> <li>▪ Land owners and developers</li> </ul>	2,000,000,000
5.1.5.2	Upgrading of existing primary roads	2022-2027	No hierarchy	Provide a functional hierarchy	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ MINH DU</li> <li>▪ Funding partners</li> </ul>	<ul style="list-style-type: none"> <li>▪ Road users</li> <li>▪ Land owners and developers</li> </ul>	16,800,000,000
5.1.5.3	Upgrading of existing secondary roads	2017-2022	Unclassified and poorly constructed	Redistribute traffic flow	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ MINH DU</li> <li>▪ Funding partners</li> </ul>	<ul style="list-style-type: none"> <li>▪ Road users</li> <li>▪ Land owners and developers</li> </ul>	24,000,000,000
5.1.5.4	Extension of primary and secondary road networks	2027+	Urban fringe areas do not have	Open up development of fringe zones	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ MINH DU</li> <li>▪ Funding partners</li> </ul>	<ul style="list-style-type: none"> <li>▪ Road users</li> <li>▪ Land owners and developers</li> </ul>	5,300,000,000

Source: BATISU Sarl

## **5.3 DRAINAGE NETWORKS**

### **5.3.1 Existing Situation**

The existing drainage situation is characterized by: -

- ❖ Absence of a storm drainage plan
- ❖ Most roads have no side drains and structures
- ❖ Tarred roads with open side drains
- ❖ Unconstructed and blocked natural drainage channels
- ❖ Poor drainage system of private real estate properties

### **5.3.2 Objectives**

To continuously provide a coherent and regularly upgraded and maintained storm drainage network and infrastructure by:

- ❖ Providing permanent side drains and infrastructure along all roads;
- ❖ Progressing clearing and constructing natural drainage in built areas;
- ❖ Effectively controlling the provision of drainage facilities on private landed properties.

### **5.3.3 Rules and regulations**

- ❖ Private land developers
- ❖ Real estate agents and promoters
- ❖ Roles and responsibilities of the Council and Government

### **5.3.4 Recommended Projects**

#### ***5.3.4.1 Design of natural drainage networks***

#### ***5.3.4.2 Covering of existing constructed open side drains along tarred roads***

#### ***5.3.4.3 Construction of priority natural drainage***

## Project Sheet

**Table N° 5 : Project Sheet**

Code	Nomenclature	Time Frame	Present State	Objectives	Potential Sponsors	Beneficiaries	Estimated Cost
5.3.4.1	Design of natural drainage networks	2015-2017	Not designed	Ensure technical feasibility	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ MINH DU</li> <li>▪ Funding partners</li> </ul>	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	<b>20,000,000</b>
5.3.4.2	Covering of existing constructed open side drains along tarred roads	2013-2015	Uncovered drains	Minimize accidents and disposal of waste	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> <li>▪ Land owners along roads</li> </ul>	<ul style="list-style-type: none"> <li>▪ Land owners</li> <li>▪ Occupants</li> <li>▪ Pedestrians</li> </ul>	<b>1,000,000,000</b>
5.3.4.3	Construction of priority natural drainage	2017-2022	Largely unconstructed	Rapid evacuation of runoff water	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ MINH DU</li> <li>▪ Funding partners</li> </ul>	<ul style="list-style-type: none"> <li>▪ Land owners</li> <li>▪ Residents</li> </ul>	<b>5,000,000,000</b>

Source: BATISU Sarl

## **5.4 SEWAGE NETWORKS AND SYSTEMS**

### **5.4.1 Existing Situation**

- ❖ Heavy dependence on poorly constructed and maintained individual sewage systems
- ❖ Some households have no sewage facilities
- ❖ Inadequate provision of public toilets and conveniences

### **5.4.2 Objectives**

The overall objective is to reasonably improve the provision, management and maintenance of individual sewage facilities within the framework of eventually developing a collective sewage system.

### **5.4.3 Rules and Regulations**

- ❖ **Rules and regulations for individual real estate sewage facilities**
- ❖ **Rules and regulations for real estate sewage facilities**
- ❖ **Roles and responsibilities of the Council and the Government ,**

### **5.4.4 Recommended Projects**

#### ***5.4.4.1 Construction of adequate public conveniences***

#### ***5.4.4.2 Effective and regular control of private sewage facilities***



## Project Sheet

**Table N° 6 : Project Sheet**

Code	Nomenclature	Time Frame	Present State	Objectives	Potential Sponsors	Beneficiaries	Estimated Cost
5.4.4.1	Construction of adequate public conveniences	2013-2015	Inadequate	Increase public comfort and convenience	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	Residents and visitors	500,000,000
5.4.4.2	Effective and regular control of private sewage facilities	2015-2027	Ineffective control	Minimize pollution	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	<ul style="list-style-type: none"> <li>▪ Property owners</li> <li>▪ Residents</li> </ul>	5,000,000

Source: BATISU Sarl

## **5.5 WATER SUPPLY NETWORKS**

### **5.5.1 Existing Situation**

- ❖ Poor quality of water supply
- ❖ Unprotected water catchment
- ❖ Poorly maintained water supply networks and installations
- ❖ Inadequate water supply
- ❖ Imbalanced distribution of water supply
- ❖ Inequitable access to safe water supply

### **5.5.2 Objectives**

The overall objective is to ensure the adequate supply of and access to safe water over time and space by: -

- ❖ Ensuring the effective protection of the existing water catchment
- ❖ Ensuring the regular maintenance of water supply networks and installations
- ❖ Ensuring the regular treatment of water through water quality assurance measures
- ❖ Upgrading the capacities of safe water supply and extending water supply networks to areas of real need
- ❖ Ensuring the proper alignment and entrenchment of water networks in priority developments areas and urban upgrading zones

### **5.5.3 Rules and regulations for water supply shall include:**

- ❖ Review procedures for connecting water supply and the provision of public standpipes
- ❖ Operation procedures for alignment and installing water supply networks and installations
- ❖ Water quality control standards

### **5.5.4 Recommended Projects**

#### ***5.5.4.1 Protection of water catchment***

#### ***5.5.4.2 Rehabilitation and regular maintenance of water supply networks and installations***

#### ***5.5.4.3 Put in place water quality assurance measures***

#### ***5.5.4.4 Carry out studies for upgrading the water supply capacity***

#### ***5.5.4.5 Upgrade water supply capacity***

## Project Sheet

**Table N° 7 : Project Sheet**

Code	Nomenclature	Time Frame	Present State	Objectives	Potential Sponsors	Beneficiaries	Estimated Cost
5.5.4.1	Protection of water catchment	2013-2015	Degraded and unprotected	Minimize pollution and reduction of water	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ GTZ</li> <li>▪ Kumball</li> </ul>	Residents	50,000,000
5.5.4.2	Rehabilitation and regular maintenance of water supply networks and installations	2015-2022	Poorly maintained and degraded	Ensure regular and safe supply of water	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ ADB</li> <li>▪ MINEE</li> <li>▪ MINH DU</li> </ul>	Residents	5,000,000,000
5.5.4.3	Put in place water quality assurance measures	2015	Doubtful quality	Ensure supply of safe water	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ MINEE</li> </ul>	Residents	5,000,000
5.5.4.4	Carry out studies for upgrading the water supply capacity	2015-2017	Unavailable	Ensure technical feasibilities	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> <li>▪ ADB</li> <li>▪ FEICOM</li> </ul>	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> <li>▪ MINEE</li> </ul>	25,000,000
5.5.4.5	Upgrade water supply capacity	2017-2027	Inadequate capacity	Ensure adequate supply	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> <li>▪ ADB</li> <li>▪ FEICOM</li> </ul>	Residents	1,000,000,000

Source: BATISU Sarl

## **5.6 ENERGY SUPPLY NETWORKS**

### **5.6.1 Existing Situation**

- ❖ Inadequate supply and frequent disruptions of electricity supply
- ❖ High cost of connections and electricity bills
- ❖ Haphazard and irregular connections of networks and installations

### **5.6.2 Objectives**

The overall objective is to ensure the adequate, stable and durable supply of affordable energy for domestic and industrial use.

### **5.6.3 Rules and regulations for the supply of energy shall include:**

- ❖ Review procedures for connecting electricity supply and the provision of public lights
- ❖ Operational procedures for alignment and installing electricity supply networks and installations

### **5.6.4 Electricity Supply Networks**

### **5.6.5 Recommended Projects**

#### ***5.6.5.1 Diversification of sources of energy***

#### ***5.6.5.2 Extension of existing electricity networks***

#### ***5.6.5.3 Public street lighting***

## Project Sheet

**Table N° 8 : Project Sheet**

Code	Nomenclature	Time Frame	Present State	Objectives	Potential Sponsors	Beneficiaries	Estimated Cost
5.6.5.1	Diversification of sources of energy	2015-2022	Dependence of electricity grid	Reduce dependence of electricity	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> <li>▪ SNV</li> </ul>	Residents	500,000,000
5.6.5.2	Extension and upgrading of existing electricity networks	2015-2022	Inadequate supply	Stabilize and ensure reliable supply	<ul style="list-style-type: none"> <li>▪ AES-SONEL</li> <li>▪ MINEE</li> </ul>	<ul style="list-style-type: none"> <li>▪ Residents</li> <li>▪ AES-SONEL</li> </ul>	5,000,000,000
5.6.5.3	Public street lighting	2015-2017	Some areas not lighted	Improve public security	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	Residents	3,000,000,000

Source: BATISU Sarl

## **5.7 COMMUNICATION FACILITIES**

### **5.7.1 Existing Situation**

The existing situation of communication in Kumba is characterized by: -

- ❖ Bottlenecks and high cost of connecting fixed phones facilities
- ❖ Inadequate and poorly maintained fixed telephone facilities
- ❖ Poor reception of mobile telephone

### **5.7.2 Objective**

The overall objective is to upgrade fixed and mobile telephone facilities and make them affordable.

### **5.7.3 Rules and regulation for communication facilities shall include:**

- ❖ Review operational procedures and conditions for subscribing for fixed and mobile phones facilities

### **5.7.4 Recommended Projects**

***5.7.4.1 Extend communication fiber network to Kumba***

***5.7.4.2 Rehabilitate and upgrade existing fixed telephone networks and installations***

***5.7.4.3 Upgrade mobile telephone facilities***

## Project Sheet

**Table N° 20 : Project Sheet**

Code	Nomenclature	Time Frame	Present State	Objectives	Potential Sponsors	Beneficiaries	Estimated Cost
5.7.4.1	Extend communication fiber network to Kumba	2013-2017	Planned	Extend communication capacity	<ul style="list-style-type: none"> <li>▪ MPT</li> <li>▪ CAMTEL</li> </ul>	Public	<b>3,000,000,000</b>
5.7.4.2	Rehabilitate and upgrade existing fixed telephone networks and installations	2015-2022	Degraded	Ensure reliability	<ul style="list-style-type: none"> <li>▪ MPT</li> <li>▪ CAMTEL</li> </ul>	Residents	<b>500,000,000</b>
5.7.4.3	Upgrade mobile telephone facilities	2013-2017	Unreliable	Ensure reliability	Mobile communication providers	Subscribers	<b>1,000,000,000</b>

Source: BATISU Sarl

**6.0 TRANSPORT AND TRAFFIC PLAN**

**PLANNING REPORT**





# **6.0 TRANSPORT AND TRAFFIC PLAN**

## **6.1 EXISTING SITUATION**

The existing transport and traffic situation is characterized by: -

- ❖ Sporadic traffic congestion
- ❖ Clandestine and unorganized parking facilities
- ❖ Poorly developed parking facilities
- ❖ High incidence of accidents
- ❖ High cost of travel
- ❖ Inconvenient and uncomfortable transport facilities
- ❖ Public insecurity

## **6.2 OBJECTIVE**

The overall objective is to make the movement of people and goods to and from and within Kumba safe, comfortable, convenient and affordable.

## **6.3 TRANSPORT AND TRAFFIC MANAGEMENT PLAN**

- ❖ Location of council motor parks
- ❖ Location of Council Lorry parks
- ❖ Location of taxi and motor taxi stops
- ❖ Municipal bus routes and stops
- ❖ Central bus station

## **6.4 RULES AND REGULATIONS FOR PARKING FACILITIES SHALL INCLUDE:**

- ❖ Rules and regulations for locating and siting express bus parking facilities
- ❖ Kumba City parking rules and regulations

## **6.5 RECOMMENDED PROJECTS**

**6.5.1 Selection, acquisition and reservation of sites for Council motor and lorry parks**

**6.5.2 Rehabilitation and upgrading of existing council motor parks**

**6.5.3 Preparation of Kumba City parking rules and regulations**

**6.5.4 Carry out feasibility studies for creating a Kumba City municipal bus system**

## Project Sheet

**Table N° 21: Project Sheet**

Code	Nomenclature	Time Frame	Present State	Objectives	Potential Sponsors	Beneficiaries	Estimated Cost
6.5.1	Selection, acquisition and reservation of sites for Council motor and lorry parks	2015-2022	Poorly located and sited along highways	Ensure proper location and siting	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> <li>▪ MINDAF</li> </ul>	<ul style="list-style-type: none"> <li>▪ Transporters</li> <li>▪ Passengers</li> </ul>	2,000,000,000
6.5.2	Rehabilitation and upgrading of existing council motor parks	2015-2022	Poorly developed	Increase comfort and convenience	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	<ul style="list-style-type: none"> <li>▪ Transporters</li> <li>▪ Passengers</li> </ul>	1,000,000,000
6.5.3	Preparation of Kumba City parking rules and regulations	2015	Incomplete rules and regulations	Ensure application	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	<ul style="list-style-type: none"> <li>▪ Transporters</li> <li>▪ Passengers</li> </ul>	50,000,000
6.5.4	Carry out feasibility studies for creating a Kumba City municipal bus system	2022-2027	High cost of intra urban travel	Reduce cost and time of intra urban travel	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	<ul style="list-style-type: none"> <li>▪ Transporters</li> <li>▪ Passengers</li> </ul>	50,000,000

Source: BATISU Sarl

**7.0 LAND MANAGEMENT AND  
HOUSING**

**PLANNING REPORT**



# 7.0 LAND MANAGEMENT AND HOUSING

## 7.1 EXISTING SITUATION

The present situation of land management and housing in Kumba is characterized by: -

- ❖ Poor and disadvantaged households encounter enormous difficulties in acquiring suitable land for housing
- ❖ Inadequate supply of decent housing for the poor and disadvantaged
- ❖ Spontaneous and haphazard construction of houses
- ❖ Un-segregated housing areas
- ❖ Unpleasant and unhygienic housing environment

## 7.2 PROJECTION OF HOUSING DEMAND AND NEEDS: 2012 -2027

The projected number of housing dwelling units and plots is shown on the following table:

**Table N° 22: Projected Housing demands and Needs**

Item	Population	Population Increase	Total Number of Households	Estimated Number of plots
2012	179 903	-	-	-
2017	229 606	49703	8285	4 143
2022	314 580	84974	14162	7 081
2027	462 221	147641	24607	12 303
<b>Total</b>		<b>282 321</b>	<b>47 054</b>	<b>23 527</b>

Source: BATISU Sarl

## 7.3 OBJECTIVES

The overall objectives for housing are: -

- ❖ To facilitate access to affordable and suitable land for housing especially for the poor and disadvantaged;
- ❖ To improve on the quality of the present housing stock and increase the supply of decent houses especially for the poor and disadvantaged;

## **7.4 UPGRADING AND INFILLING OF HOUSING AREA**

- ❖ Fiango
- ❖ Houasa Quarter
- ❖ Kumba Old Town
- ❖ Buea Road
- ❖ Mbonge Road
- ❖ Etc

## **7.5 CREATION OF NEW HOUSING LAYOUTS**

New housing layouts should be created in each urban district for: -

- ❖ Low cost housing
- ❖ Medium income housing
- ❖ High income housing
- ❖ Mixed housing

## **7.6 RECOMMENDED PROJECTS**

### **7.6.1 Facilitate access to housing finance and construction techniques and technologies**

- ❖ Establish housing mortgage societies
- ❖ Provide financial and technical assistance for housing the poor

### **7.6.2 Facilitate access to housing land for the poor**

- ❖ Develop a land management partnership between the council and land owners and occupants
- ❖ Create a transparent land market

### **7.6.3 Facilitate access to basic services and utilities in housing areas**

- ❖ Water supply
- ❖ Electricity supply
- ❖ Social services

### **7.6.4 Construction of 1000 social houses yearly**

### **7.6.5 Upgrading of slum areas**

## 7.7 RULES AND REGULATIONS FOR RESIDENTIAL LAND USES

The following rules and regulations for residential land use categories shall be respected accordingly:

- ❖ All plots should have a rectangular shape with side boundaries approximately at right angle from the front line of the plot.
- ❖ Minimum height of DPC above ground level of roads: 50 cm above
- ❖ All housing types, public utility easements and construction norms and standards shall be as specified in layout regulations and building permits.

**Table N° 23: Plot development norms and standards**

Item	Parameters	Low Income	Medium Income	High Income
01	Area of plot	300-400m <sup>2</sup>	400-600m <sup>2</sup>	600-1000m <sup>2</sup>
02	Minimum width of plots	15m	20m	25m
03	Setback of plots from road curbs	3.0m	5.0m	10.0m
04	Setback from axis of road	10.0m	15.0m	20.0m
05	Side setbacks	1.5m	3.0m	5.0m
06	Rear setback	3.0m	5.0m	7.5m
07	Plot occupation ratio	80-90%	60-70%	40-50%
08	Height of buildings	One floor	1-3 floors	1-2 floors
09	Maximum dwelling units	2	6	1

Source: BATISU Sarl

## Project Sheet

**Table N° 24: Project Sheet**

Code	Nomenclature	Time Frame	Present State	Objectives	Potential Sponsors	Beneficiaries	Estimated Cost
7.6.1	Facilitate access to housing finance, construction techniques and technologies	2015-2027	Inexistent	Make housing affordable	<ul style="list-style-type: none"> <li>▪ CFC</li> <li>▪ Micro finance organizations</li> <li>▪ Commercial banks</li> </ul>	<ul style="list-style-type: none"> <li>▪ Land owners</li> <li>▪ Households in need for housing</li> </ul>	50,000,000
7.6.2	Facilitate access to housing land for the poor	2013-2027	Inexistent	Make housing affordable	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ MAETUR</li> <li>▪ Kumbal, II and III</li> <li>▪ Traditional authorities</li> <li>▪ Land owners</li> </ul>	<ul style="list-style-type: none"> <li>▪ Poor households</li> </ul>	1,000,000,000
7.6.3	Facilitate access to basic services and utilities in housing areas	2015-2017	Inexistent	Improve quality of housing	<ul style="list-style-type: none"> <li>▪ AES-SONEL</li> <li>▪ CAMWATER</li> <li>▪ KCC</li> <li>▪ Kumbba I, II and III</li> <li>▪ Land owners</li> </ul>	<ul style="list-style-type: none"> <li>▪ Poor households</li> </ul>	5,000,000,000
7.6.4	Construction of 1000 social houses yearly	2015-2017	Inexistent	Increase housing stock	<ul style="list-style-type: none"> <li>▪ MINH DU</li> <li>▪ Real Estate promoters</li> <li>▪ SIC</li> </ul>	<ul style="list-style-type: none"> <li>▪ Poor households</li> </ul>	15,000,000,000
7.6.5	Upgrading of slum areas	2022-2027	Inexistent	Improve on stock of existing housing	<ul style="list-style-type: none"> <li>▪ MINH DU</li> <li>▪ KCC</li> <li>▪ Land owners</li> </ul>	<ul style="list-style-type: none"> <li>▪ Poor households</li> </ul>	50,000,000

Source: BATISU Sarl

**8.0 PUBLIC AND COMMUNITY  
FACILITIES**

**PLANNING REPORT**





# 8. PUBLIC AND COMMUNITY FACILITIES

## 8.1 EXISTING SITUATION

The present situation of the provision of public and community facilities is generally characterized by: -

- ❖ Inadequate supply of basic public and community facilities
- ❖ Unsatisfactory location and sitting of public and community facilities
- ❖ Existing public facilities are poorly maintained and equipped
- ❖ Poorly constructed public and community facilities

## 8.2 OBJECTIVES

The overall objective is to ensure adequate provision, satisfactory location and sitting of good quality and affordable provision of public and community facilities so as to minimize the cost and time of travel to basic services and assure the safety of users.

## 8.3 EDUCATIONAL FACILITIES

Table N° 21 shows planning grill for government educational facilities which should be applied to Kumba City.

**Table N° 25: Proposed Standards for Public Educational Facilities**

Item	Public Educational Facilities	Level of Provision	Population Threshold	Catchment Radius	Space Standards
01	Nursery Schools	Cluster	3,000-5,000	500m	0.5hectares
02	Primary Schools	Neighborhood	5,000-10,000	1.0km	2.0hectares
03	General Secondary and High Schools	District	40-50 000	2.5km	5.0hectares
04	Technical Secondary and High schools	District	40-50 000	2.5km	5.0hectares
05	University college	Town	More than 100,000	5.0km	10.0hectares
06	University	City	More than 200,000	N.A	50.0hectares

Source: BATISU Sarl

### 8.3.2 Projected Demand for Government Schools: 2012 – 2027

Table N° 26: Projected Demand for Government Schools: 2012 – 2027

Year	Nursery school		Primary School		Secondary school				High School			
					General		Technical		General		Technical	
E	21		11		5		4		5		2	
	T	P	T	P	T	P	T	P	T	P	T	P
2012	60	39	36	25	5	0	5	1	5	0	5	3
2017	77	17	45	9	6	0	6	1	6	1	6	1
2022	105	28	63	18	8	0	8	2	8	2	8	2
2027	154	49	93	30	12	4	12	4	12	4	12	4

Source: BATISU Sarl

Keys: T = total P = Proposed E = Existing

### 8.3.3 Location

#### 8.3.4 Recommended Projects

##### 8.3.4.1 Rehabilitation and upgrading of existing schools

##### 8.3.4.2 Acquire and reserve sites for educational facilities

##### 8.3.4.3 Provide new educational facilities to match growing demand

### 8.3.5 Rules and Regulations

All pupils and students within government school catchment areas have the right to be admitted into their local government school before anyone from outside the catchment area.

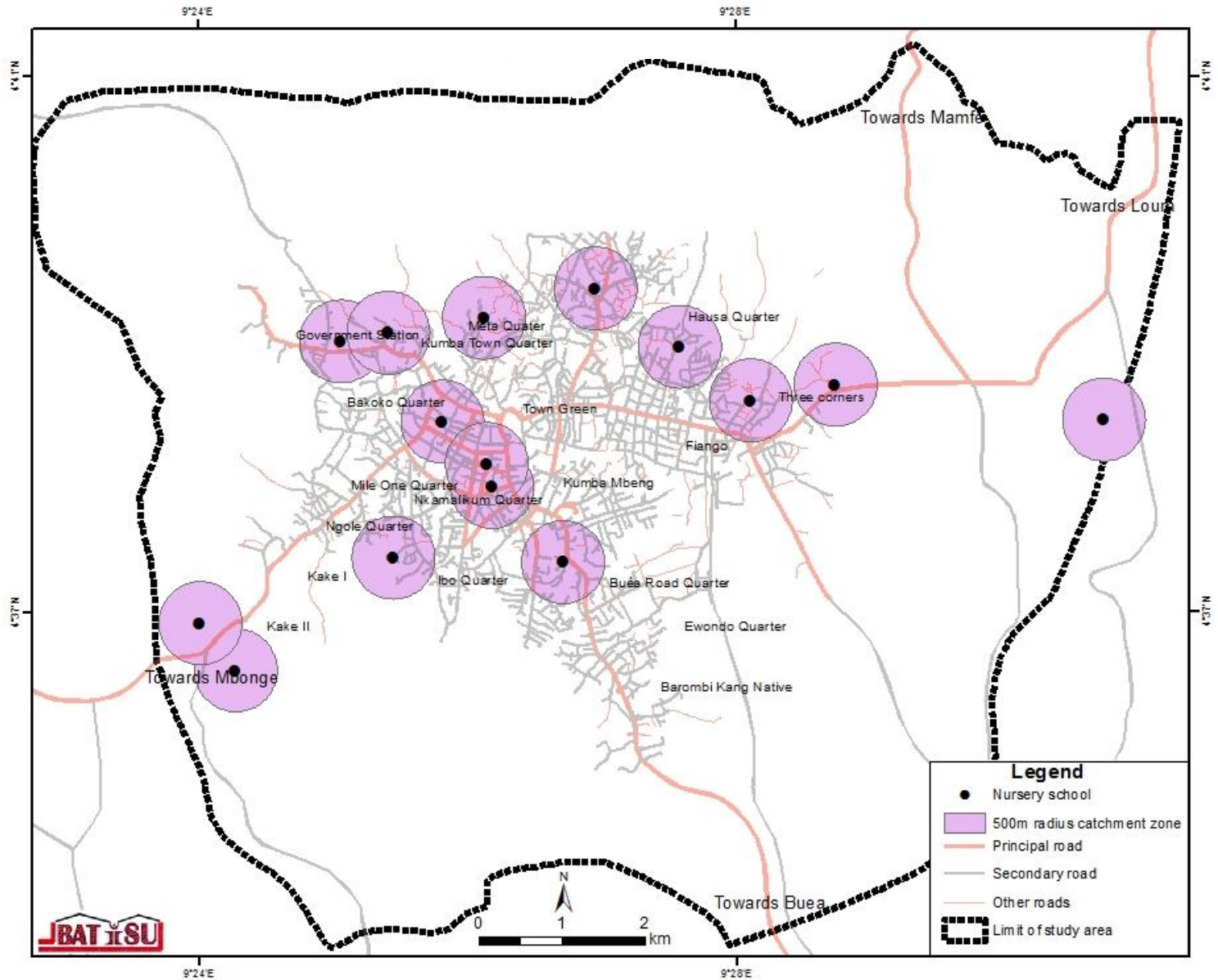


Figure N° 8 : Location and catchment areas of existing government nursery schools

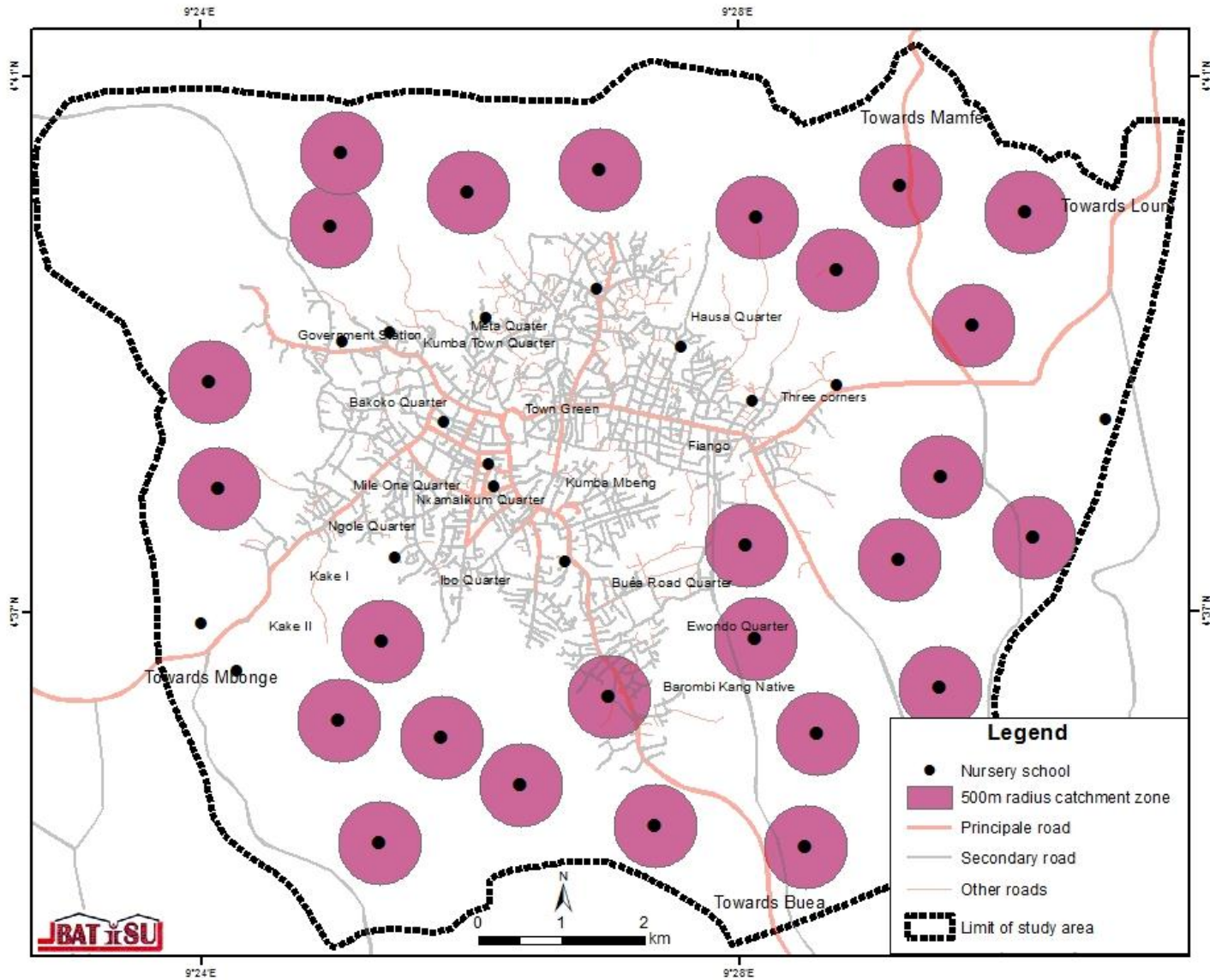


Figure N° 14 : Location and catchment areas of proposed government Nursery schools

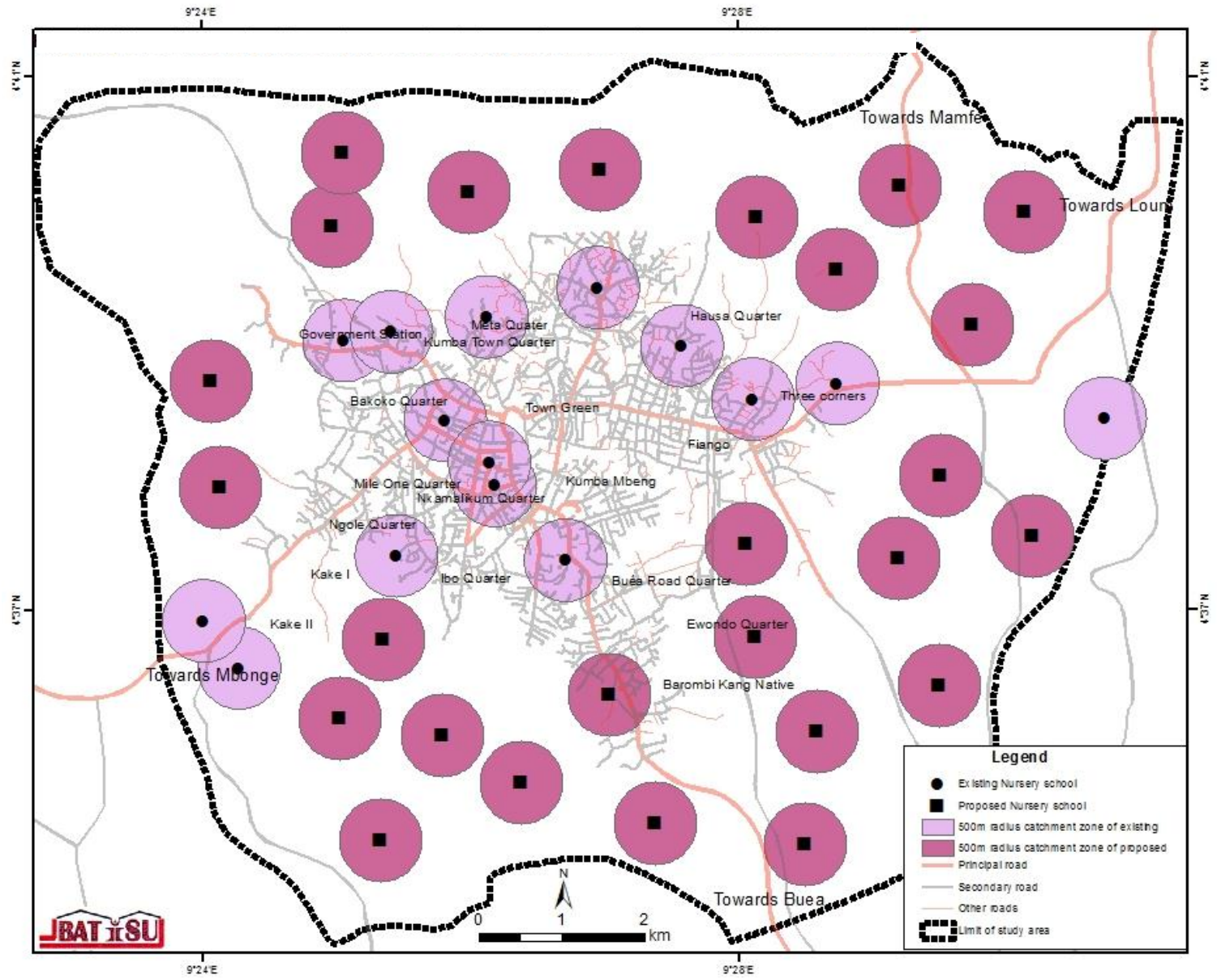


Figure N° 15 : Location and catchment areas of existing and proposed government Nursery schools

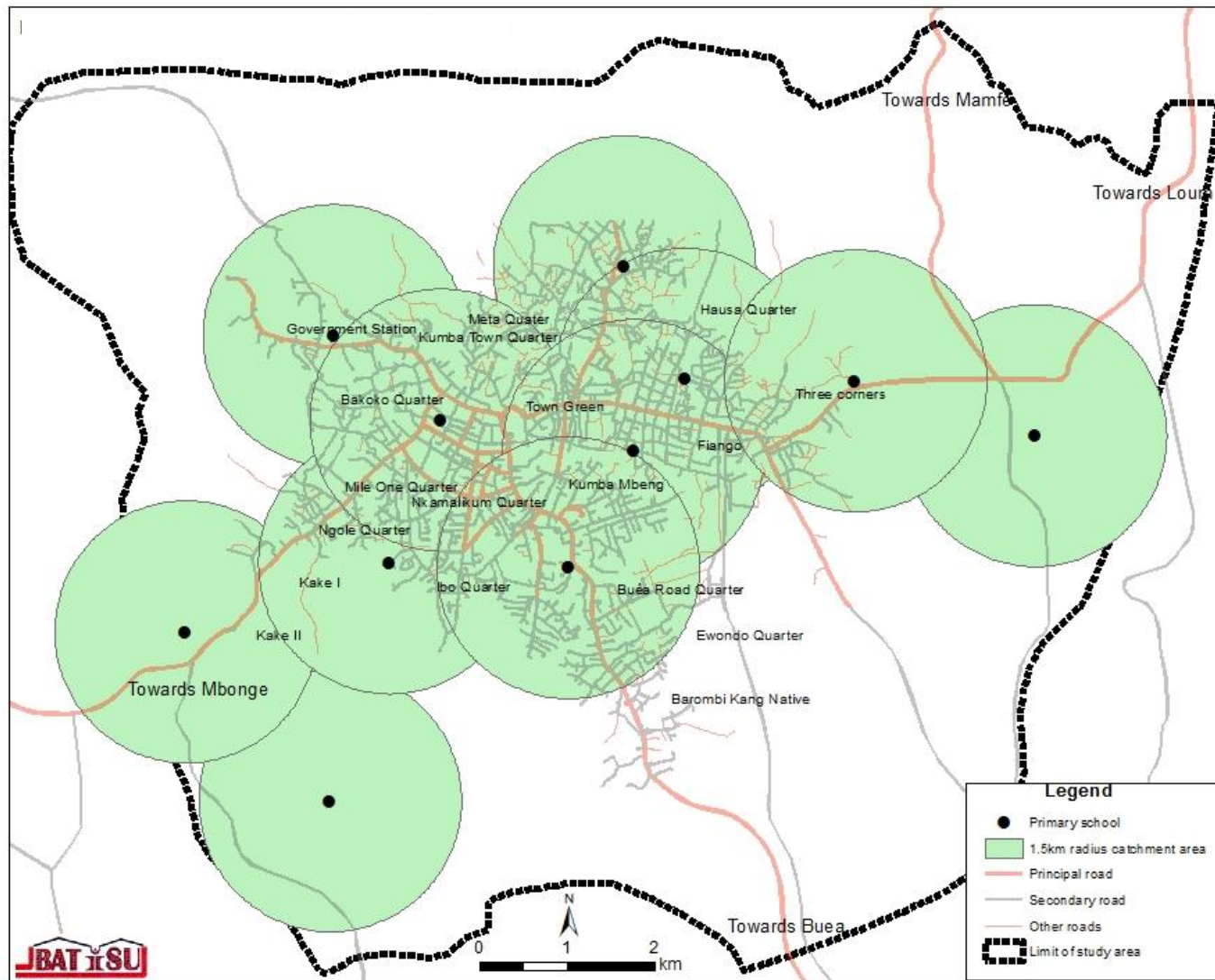
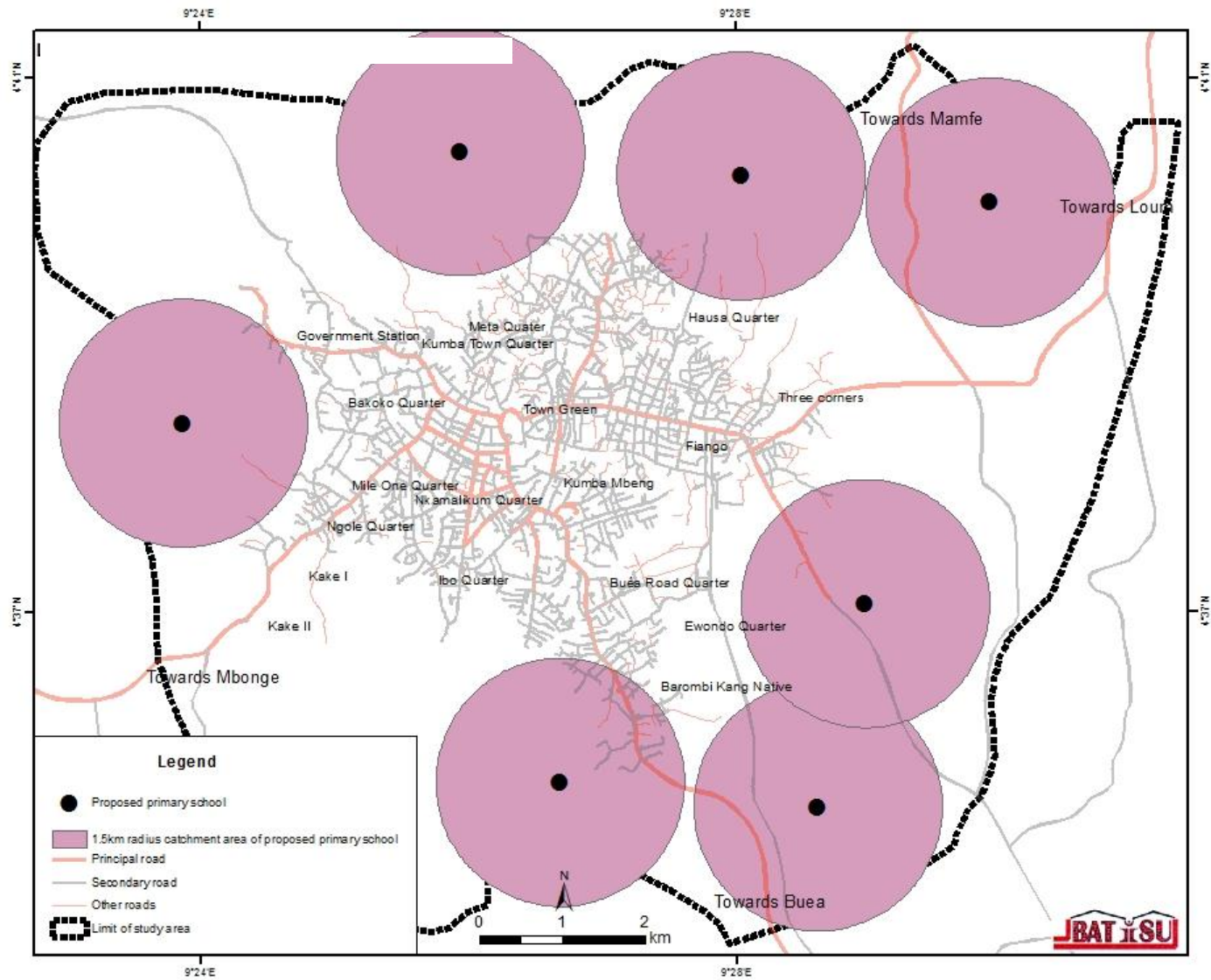


Figure N° 16 : Location of existing government primary schools



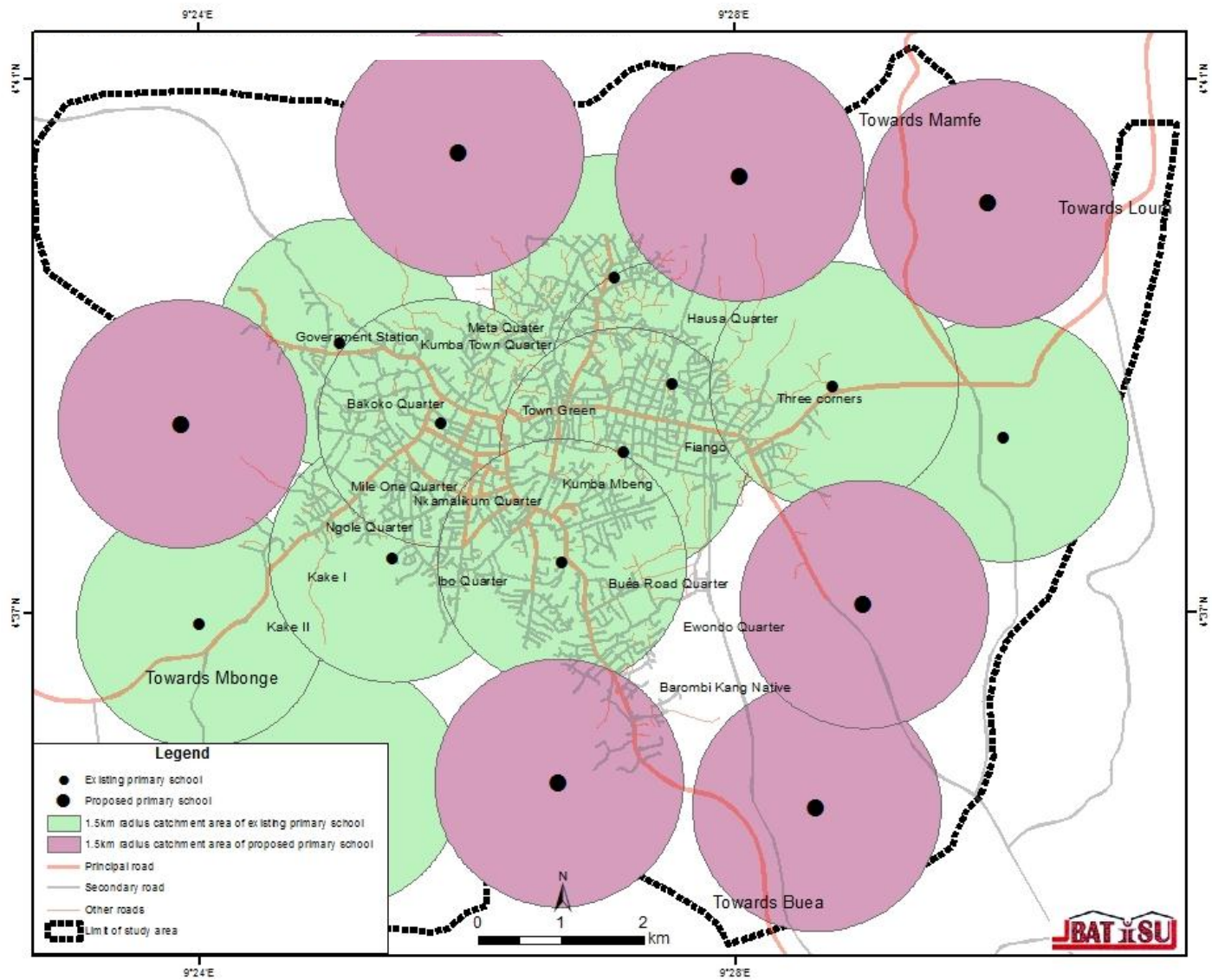


Figure N° 18 : Location of existing and proposed Government Primary Schools



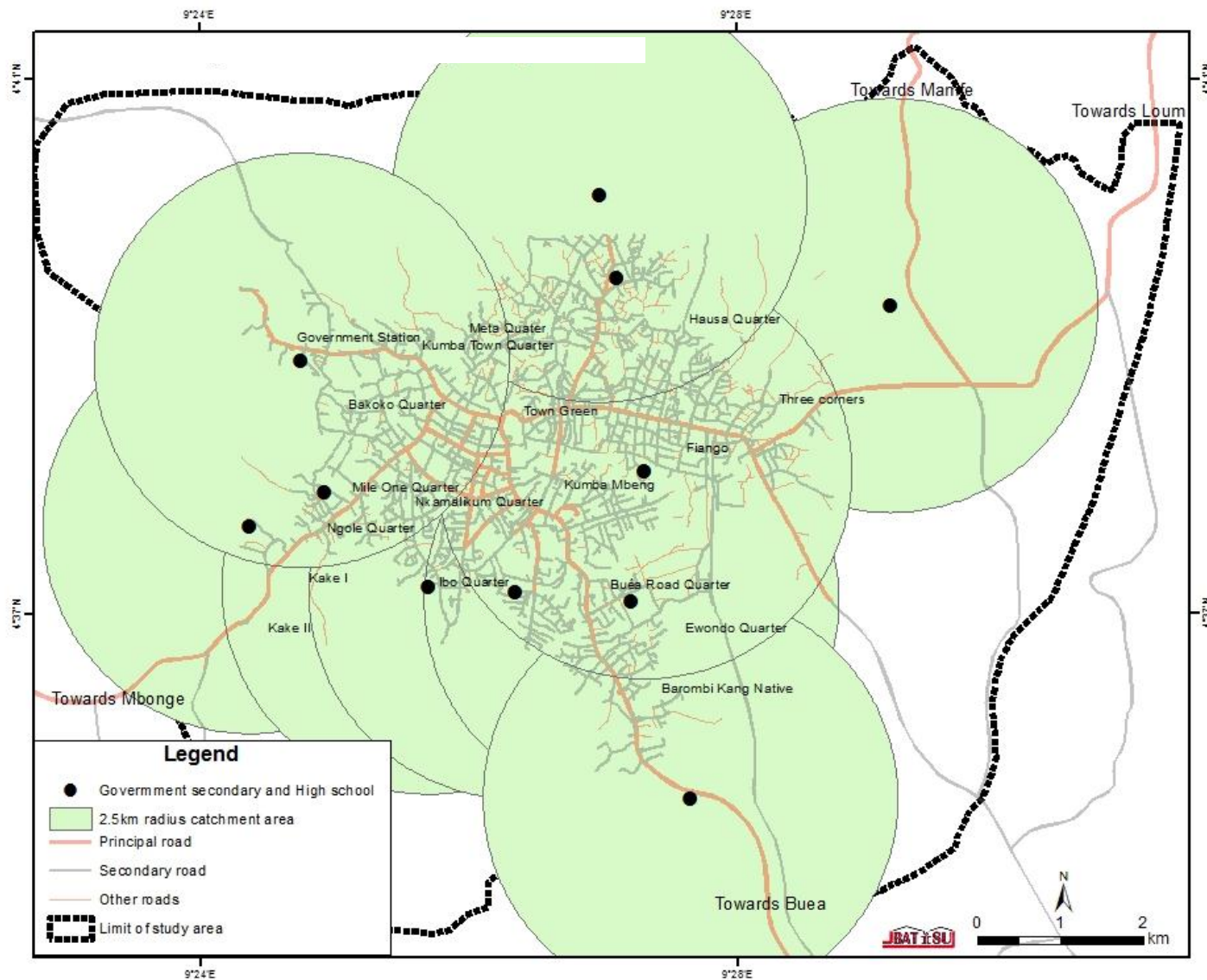
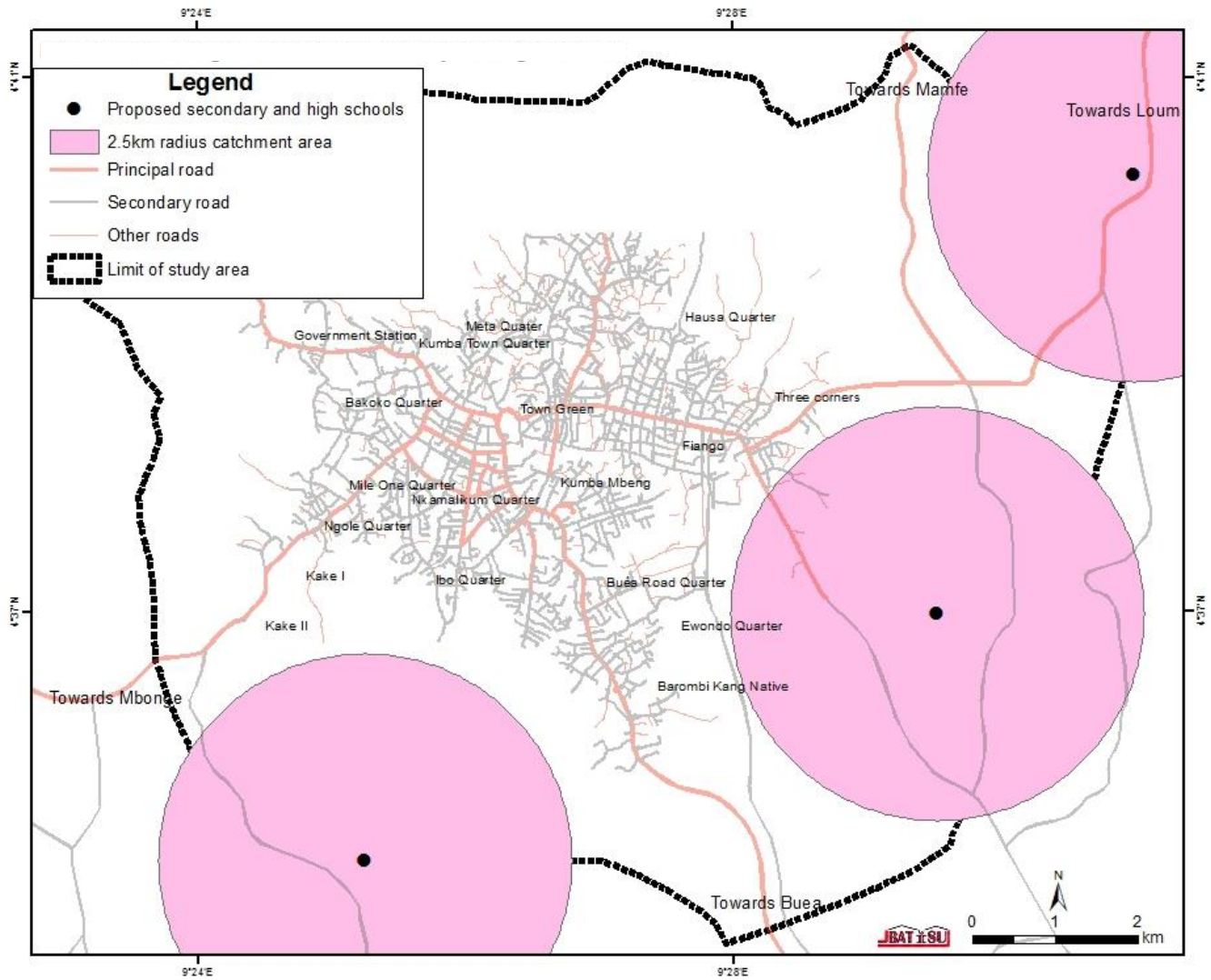
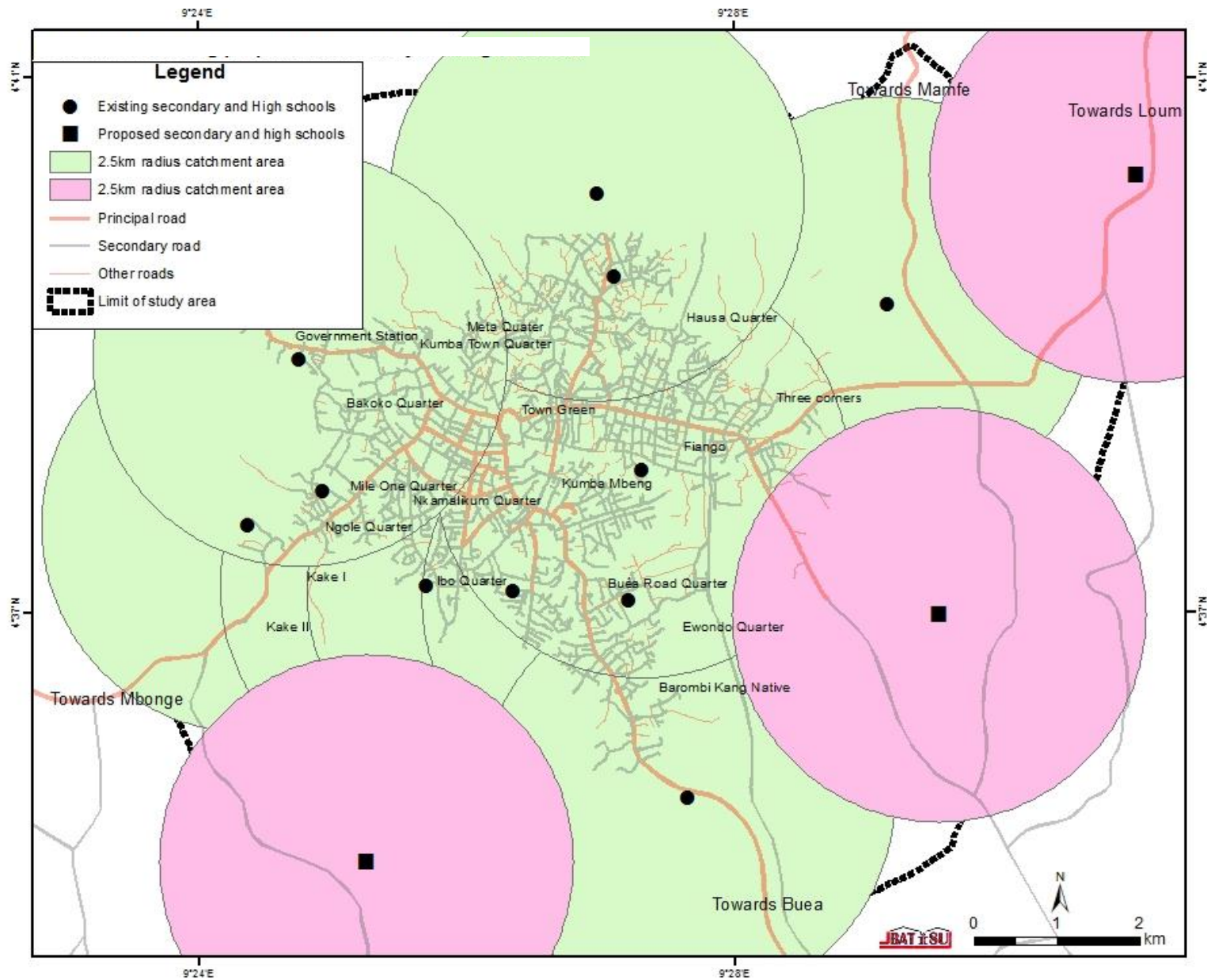


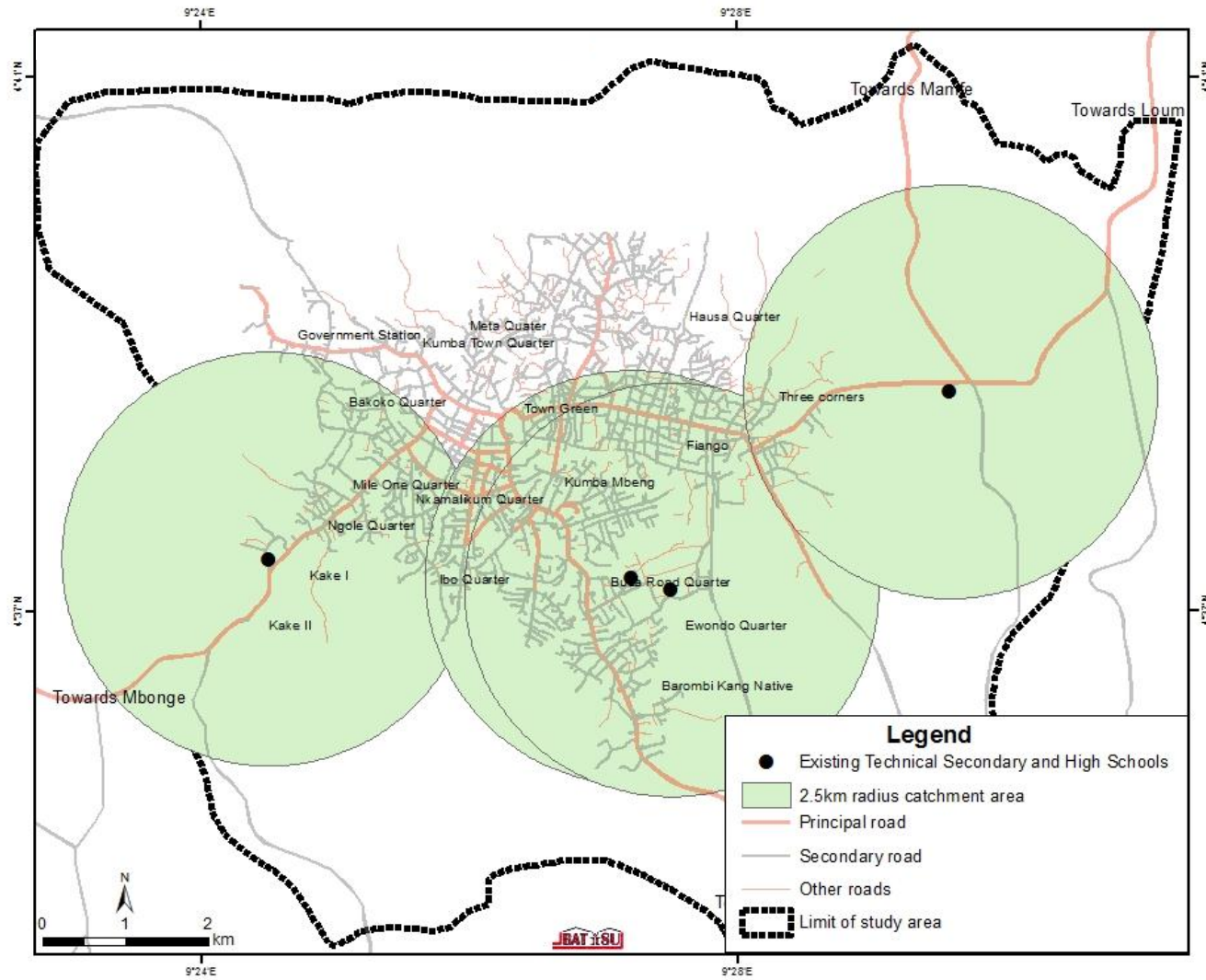
Figure N° 19 : Location of existing government Secondary and High schools



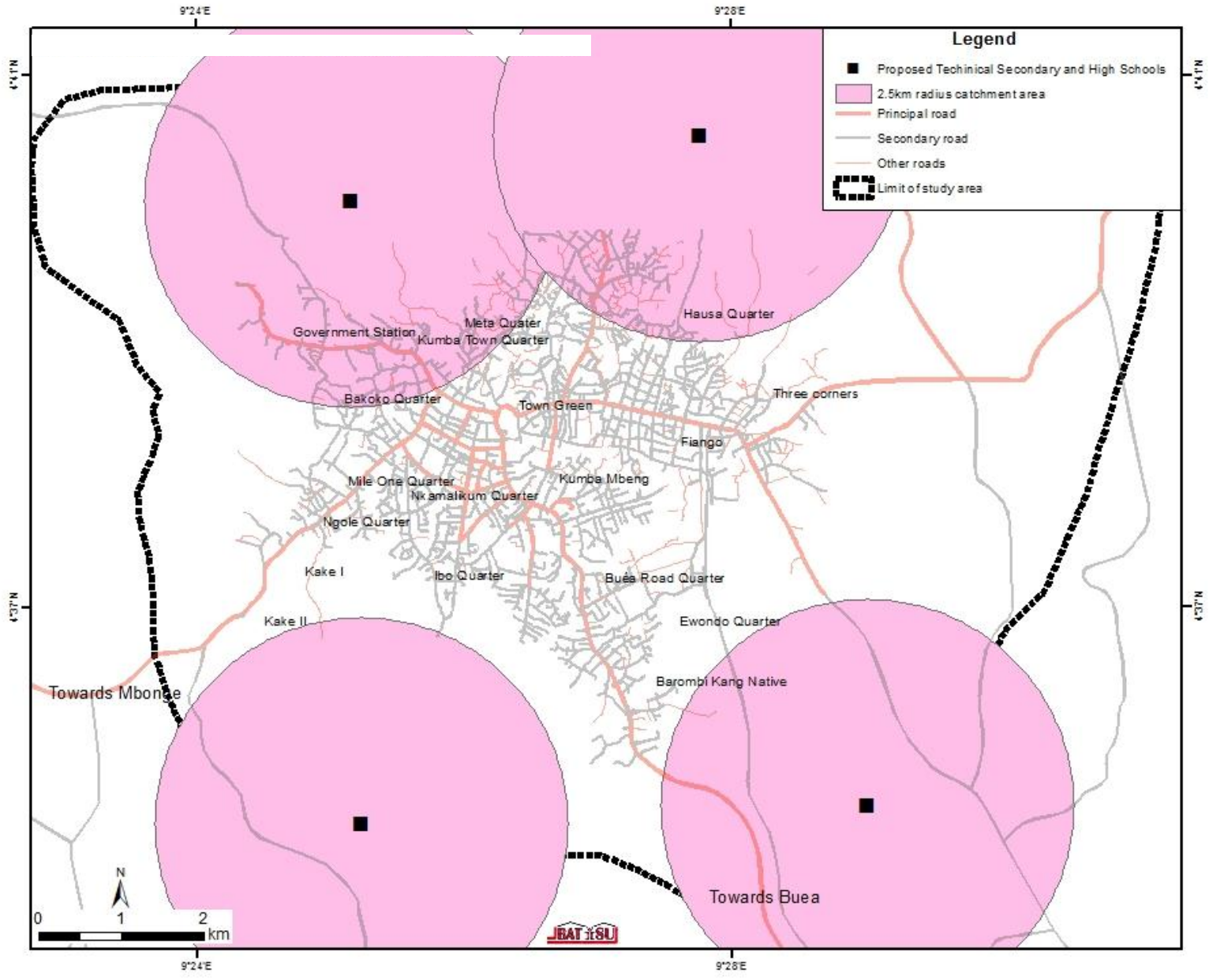
**Figure N° 20 : Location of existing Government Secondary and High Schools**



**Figure N° 21 : Location of existing Proposed Government Secondary and High Schools**



**Figure N° 22 : Location of existing Government Technical Secondary and High Schools**



**Figure N° 23 : Location of proposed Government Technical Secondary and High Schools**

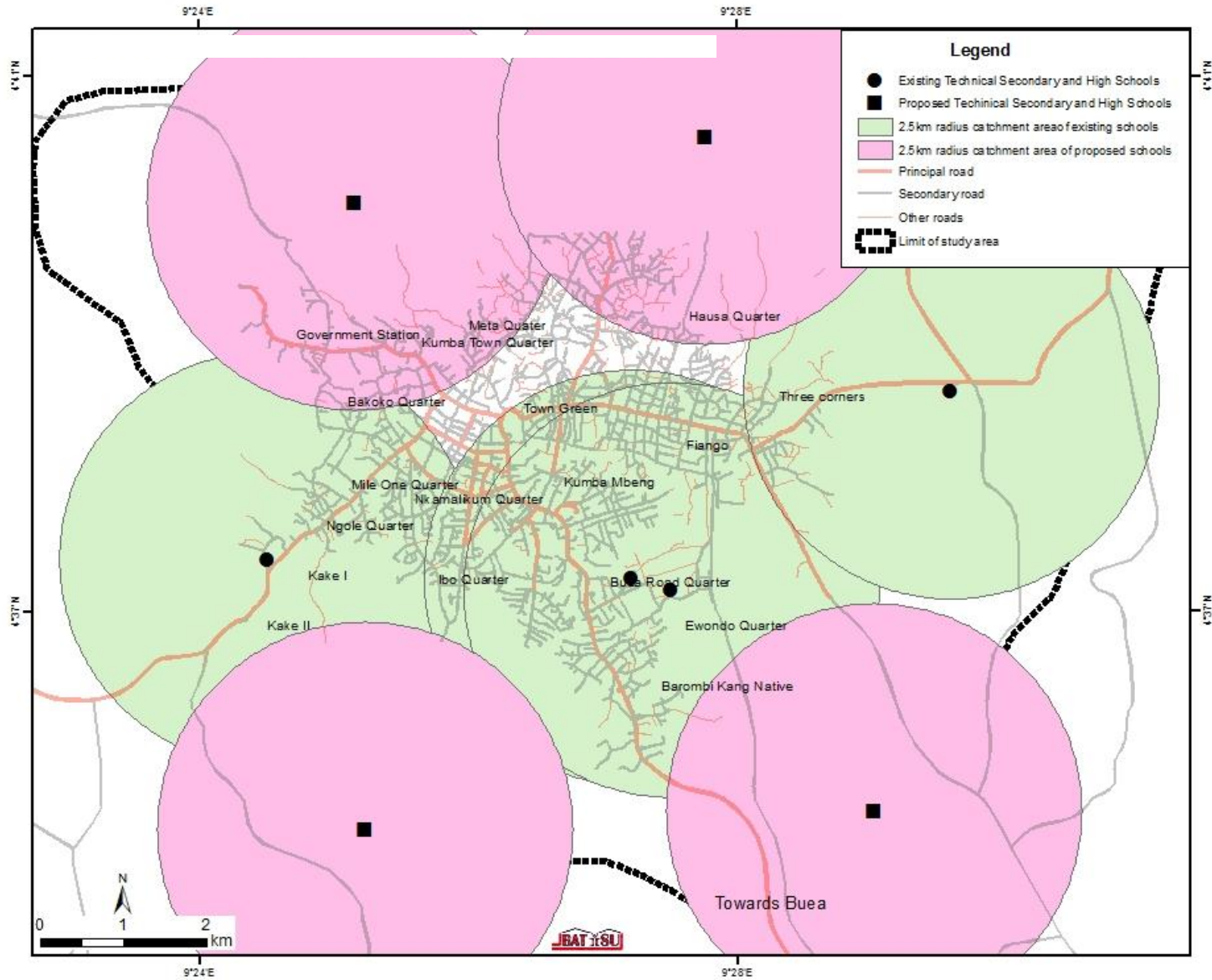


Figure N° 24 : Location of existing and proposed Government Technical Secondary and High Schools

## 8.4 HEALTH FACILITIES

### 8.4.1 Proposed Standards for Health Facilities

Table N° 9 : Proposed Standards for Health Facilities.

Item	Level of Health Facilities	Level of Provision	Population Threshold	Catchment Radius	Space Allocation (hectares)
01	Health centres	Districts	40-50 000	2.5km	2
02	District hospitals	Towns	40-50 000	4.0km	5
03	General Hospitals	City	200-500,000	5.0km	7-10
04	Reference Hospital	Region	More than 500,000	More than 10.0km	10-15

Source: BATISU Sarl

### 8.4.2 Projected Demand for Public Health Facilities

Table N° 10 : Projected Demand for Public Health Facilities

Year	Health Centres		Districts hospitals		General/Reference Hospitals	
E	4		1		0	
	T	P	T	P	T	P
2012	5	1	4	3	1	1
2017	6	1	5	1	1	0
2022	8	2	6	1	2	1
2027	11	3	9	3	2	0

Source: BATISU Sarl

Keys: T = total P = Proposed E = Existing

### **8.4.3 Location plans**

### **8.4.4 Recommended Projects**

***8.4.4.1 Rehabilitate and upgrade existing public health facilities***

***8.4.4.2 Acquire and reserve sites for future public health facilities***

***8.4.4.3 Provide new public health facilities to match growing demand***



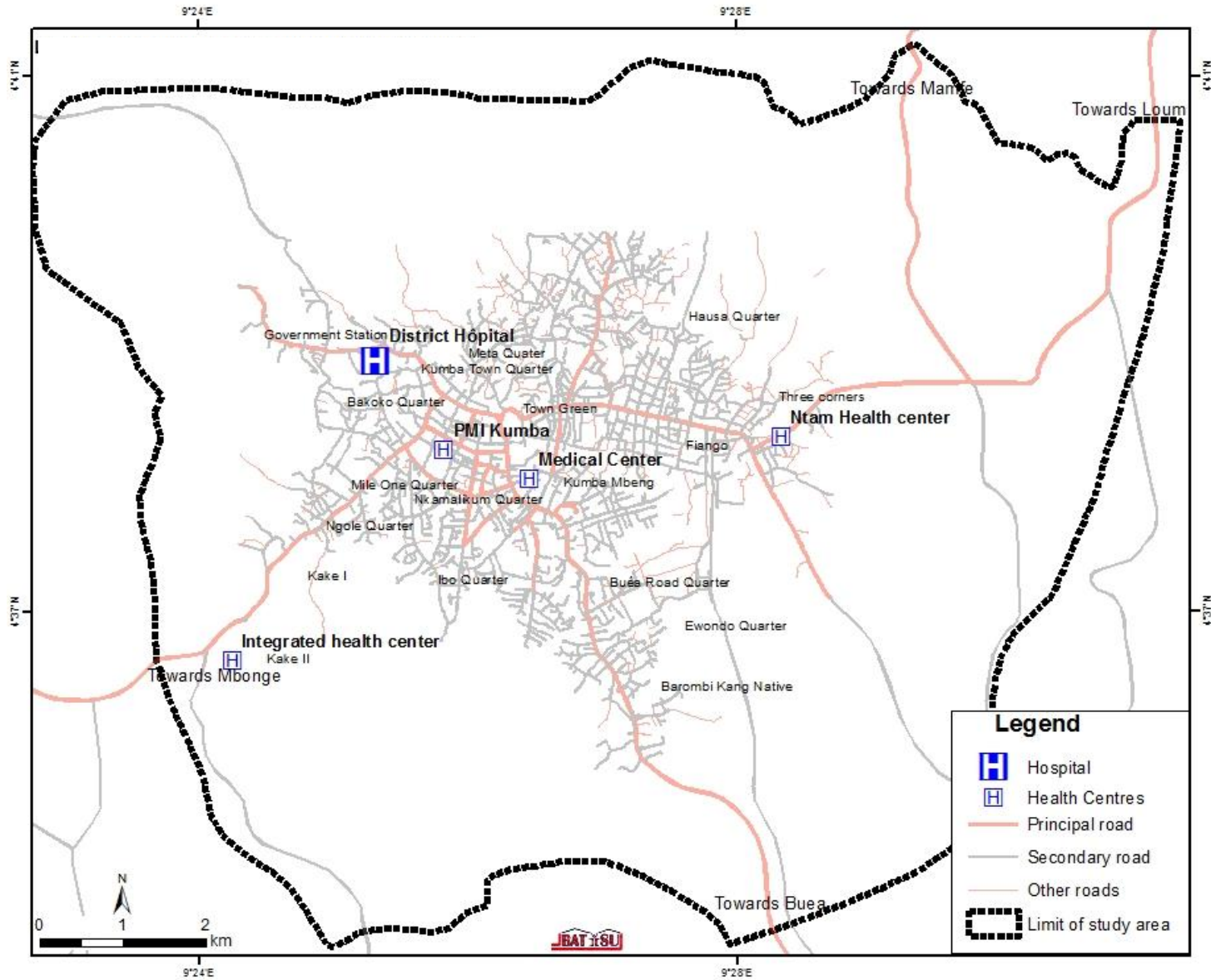


Figure N° 25 : Location of existing Government Health Services

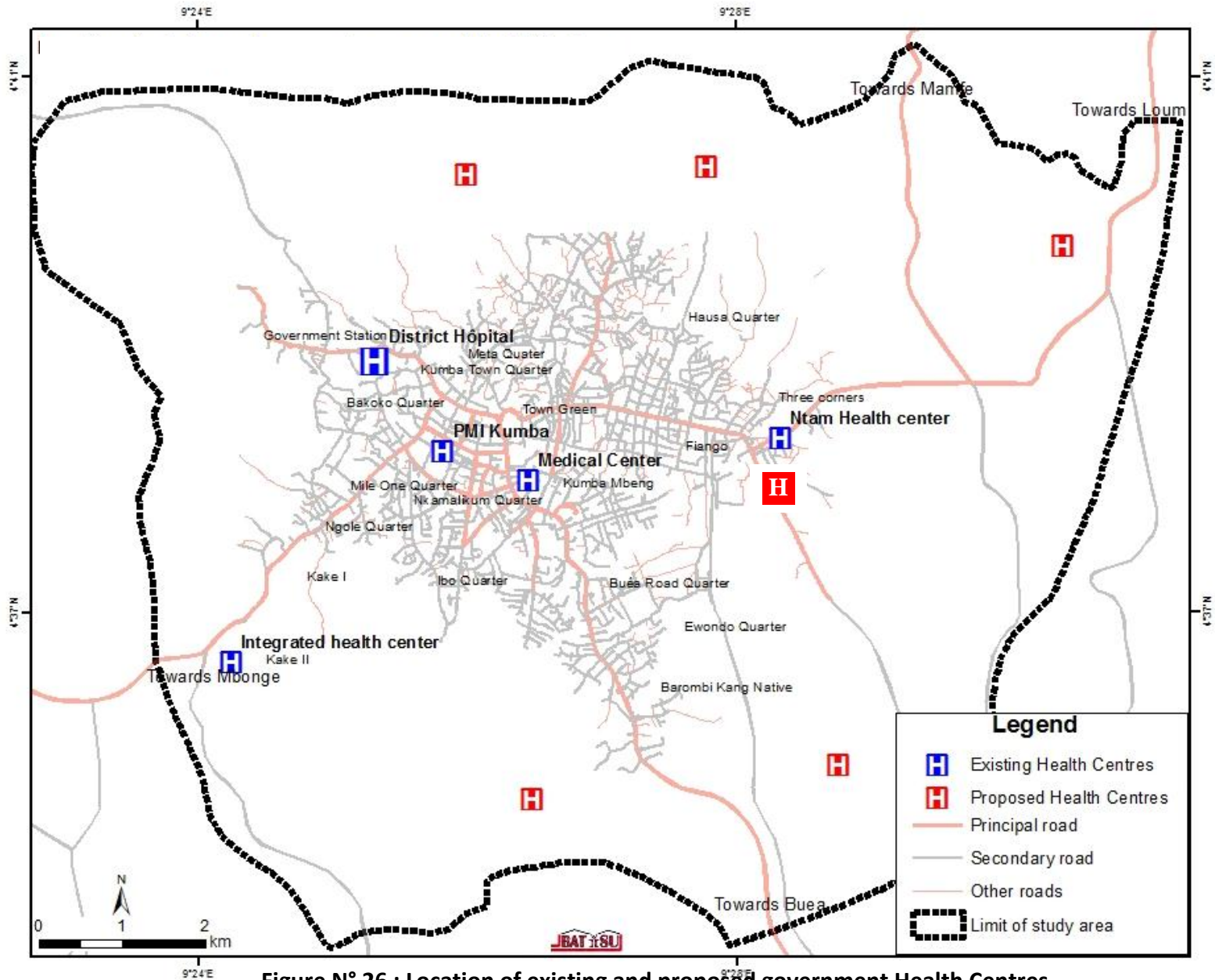


Figure N° 26 : Location of existing and proposed government Health Centres

## 8.5 MARKETS AND SHOPPING CENTRES

**Table N° 11 : Proposed Standards for Markets and Shopping Facilities**

Item	Markets and Shopping Facilities	Level of Provision	Population Threshold	Catchment Radius	Space Standards
01	Corner stores	Cluster	1000-2 ,000	500m	200m <sup>2</sup>
02	Neighbourhood Shops	Quarter/Neighbourhood	7500-10,000	1.5km	500m <sup>2</sup>
03	District Markets and Shops	District	40-50 000	2.5km	1.0hectares
04	Town markets and Shops	Town	100-150,000	3.5km	3.0hectares
05	Central markets and Shops	City	200-500,000	5.0km	5.0hectares
06	Regional Markets and Shopping mall	Region		N.A	More than 5.0hectares

Source: BATISU Sarl

## 8.6 PARKING FACILITIES

**Table N° 30: shows a planning grill for parking facilities within Kumba City planning area.**

Item	Parking Facilities	Level of Provision	Population Threshold	Catchment Radius/Distance	Space Standards
01	Taxi Stops	Busy streets and Junctions	N.A	150m	40m long
02	Bus Stops	Arterial and Primary roads	N.A	500m	30m long
03	Motorcycle parks	Strategic road junctions(off-street)	N.A	300m	50m <sup>2</sup>
04	On-Street parking	City and Town Centres/Corners Stores	N.A	10m from road junction	Between road junctions
05	Off-street	Activity areas	5 000-10 000	N.A	500m <sup>2</sup>
06	Intra-Urban bus stations	Towns/Districts	40 -50 000	2.5km	1.0hectares

07	Commuter motor park	Towns	100-200 000	3.5km	1.5hectares
08	Central motor park	City	200-500 000	5.0km	3.0hectares
09	Express bus stations	Urban districts	40 – 50 000	City wide	0.5 hectares
10	Lorry(cargo) parks	City/Region	More than 500 000	More than 5.0km	5.0hectares

Source: BATISU Sarl

### 8.6.2 Location of motor, lorry and bus parks

- ❖ All motor, lorry and bus parks are prohibited from locating along arterial and primary roads within the planning area;
- ❖ All existing motor, lorry and bus parking facilities along arterial and primary roads must be removed to convenient locations in conformity with these parking rules and regulations;
- ❖ Motor, lorry and bus parking facilities can be located at least 50 meters from the edge of secondary and tertiary roads ;
- ❖ Each motor, lorry and bus park must have a separate entry and exit not less than 50 meters apart;
- ❖ The minimum area of a motor, lorry and bus park is 2500 meters square.

## 8.7 CIVIC AND CULTURAL FACILITIES

**Table N° 31 : Proposed Standards for Public Libraries and Creativity Centres**

Item	Public Libraries	Level of Provision	Population Threshold	Catchment Radius/Distance	Space Standards
01	Reading Room	Cluster	1000-2000	200m	20-40m <sup>2</sup>
02	Neighborhood Library	Neighborhood	7500-10 000	500m	80-100m <sup>2</sup>
03	District library	District	40-50 000	2.0km	500m <sup>2</sup>
04	Town Library/Creativity Centre	Town	100-150 000	2.5km	1,000m <sup>2</sup>
05	City Library/Technological museum	City	200-500 000	5.0km	1-2hectares
06	Regional Library/Archives	Region	Over 500 000	Over 5km	2-5hectares

Source: BATISU Sarl

Table N° 27 below shows standards for planning and providing public and community halls which should be used in further detailed planning of urban space.

**Table N° 32 : Proposed Standards for Public and Community halls**

Item	Public and Community Hall	Level of Provision	Population Threshold	Catchment Radius/Distance	Space Standards
01	Meeting Room	Cluster	500-1,000	200m	20-40m <sup>2</sup>
02	Neighborhood Hall	Neighborhood	5,000-10,000	500m	100-120m <sup>2</sup>
03	District Hall	District	50-100,000	1.5km	500m <sup>2</sup>
04	Town Hall	Town	100-200,000	2.5km	1hectares
05	City Hall	City	200-500,000	5.0km	2-3hectares
06	Conference Centre	Region	Over 500,000	Over 5.0km	3-5hectares

Source: BATISU Sarl

## 8.8 WELFARE FACILITIES

**Table N° 33 : Proposed standards for welfare facilities**

Item	Welfare Facility	Level of Provision	Population Threshold	Space Standard
01	Orphanages	Urban district	50 000	250- 500m square
02	Handicapped centres	Kumba City	Over 100 000	250 500m square
03	Old people's homes	Urban district	50 000	1000- 15000 m square
04	Reformatory centres	Kumba City	Over 100 000	250 500m square
05	Blind and deaf centres	Kumba City	Over 100 000	250 500m square
06	Welfare homes	Urban district	50 000	1000-1500m square

Source: BATISU Sarl

## 8.9 SPORTS AND RECREATION

Table 30 shows proposed standards for providing sports and recreational facilities. These standards should be used in further detailed planning to provide for sports and recreational facilities. The difficulty is usually who shall provide the means, acquire the land, plan and develop sports and recreational facilities and ensure that they are well maintained and managed.

**Table N° 34 : Proposed Standards for Sports and Recreational Facilities**

Item	Sports and Recreational Facilities	Level of Provision	Population Threshold	Catchment Radius/Distance	Space Standards
01	Toddlers playgrounds	Block	500- 1000	50m	100m <sup>2</sup>
02	Infants playground	Cluster	1000-2 000	200m	200m <sup>2</sup>
03	Football Pitch	Neighborhood	7500-10 000	1.0km	6000m <sup>2</sup>
04	Neighborhood parks and recreation	Neighborhood	75000-10 000	500m	1.0hectares
05	Sport Complex	District	40-50 000	2.0km	2.0hectares
06	Town Stadium	Town	100-200 000	2.5km	3.5hectares
07	City Stadium	City	200-500 000	5.0km	10.0hectares
08	City park and gardens	City	Over 500 000	Over 5.0km	Over 10hectares

Source: BATISU Sarl

## **8.10 Open Spaces and Greens**

The demand and need for open space varies with income groups, level of education, cultural background, lifestyles and age groups within the life cycle. As such, the trends and pattern of demand for open spaces changes over time and space with changes in recreational habits.

At the moment, the demand and need for urban open spaces are low but would certainly increase in future. As such, sites for open spaces must be acquired, reserved and eventually develop and managed by local council authorities.

## Project Sheet

**Table N° 12 : Project Sheet**

Code	Nomenclature	Time Frame	Present State	Objectives	Potential Sponsors	Beneficiaries	Estimated Cost
8.3.1	Rehabilitation and upgrading of existing schools	2013-2015	Run down school infrastructure	Make optimum use of existing schools	<ul style="list-style-type: none"> <li>▪ MINEBASE</li> <li>▪ MINESEC</li> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	<ul style="list-style-type: none"> <li>▪ Pupils</li> <li>▪ Students</li> <li>▪ Parents</li> <li>▪ Teachers</li> </ul>	3,000,000,000
8.3.2	Acquire and reserve sites for educational facilities	2015-2017	Inadequate and poorly located school sites	Ensure the proper location of schools	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> <li>▪ MINDAF</li> </ul>	<ul style="list-style-type: none"> <li>▪ School communities</li> <li>▪ MINEBASE</li> <li>▪ MINESEC</li> </ul>	500,000,000
8.3.3	Provide new educational facilities to match growing demand	2015-2022	Schools usually allocated belatedly	Meet growing demands for education	<ul style="list-style-type: none"> <li>▪ MINEBASE</li> <li>▪ MINESEC</li> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	<ul style="list-style-type: none"> <li>▪ Pupils</li> <li>▪ Students</li> <li>▪ Parents</li> <li>▪ Teachers</li> </ul>	500,000,000
8.4.4.1	Rehabilitate and upgrade existing public health facilities	2013-2015	Run down health infrastructure	Make optimum use of existing health facilities	<ul style="list-style-type: none"> <li>▪ MINSANTE</li> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	<ul style="list-style-type: none"> <li>▪ Health district communities</li> </ul>	2,000,000,000
8.4.4.2	Acquire and reserve sites for future public	2015-2017	Inadequate and poorly located	Ensure the proper location of	<ul style="list-style-type: none"> <li>▪ MINSANTE</li> <li>▪ MINDAF</li> <li>▪ KCC</li> </ul>	<ul style="list-style-type: none"> <li>▪ Health district communities</li> <li>▪ MINSANTE</li> </ul>	500,000,000



	health facilities		health facilities	health facilities	<ul style="list-style-type: none"> <li>▪ Kumba I, II and III</li> </ul>		
8.4.4.3	Provide new public health facilities to match growing demand	2015-2022	Health facilities usually allocated belatedly	Meet growing demands for health facilities	<ul style="list-style-type: none"> <li>▪ MINSANTE</li> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	<ul style="list-style-type: none"> <li>▪ Health district communities</li> </ul>	20,000,000,000

Source: BATISU Sarl

## **KUMBA CITY MASTER PLAN**

# **9.0 ENVIRONMENTAL MANAGEMENT PLAN**

## **PLANNING REPORT**



# 9.0 ENVIRONMENTAL MANAGEMENT PLAN

## 9.1 OBJECTIVES

The overall objective is to prevent and mitigate undesirable environmental outcomes of all planning and development actions and activities

## 9.2 SOLID WASTE MANAGEMENT

### 9.2.1 Existing Situation

- ❖ Unorganized solid waste management
- ❖ Random solid waste disposal

### 9.2.2 Objective

Develop Kumba City Council capacity to effectively manage solid waste.

### 9.2.3 Management Processes and Procedures

- ❖ Pre-collection
- ❖ Collection, transportation and disposal
- ❖ Treatment and disposal
- ❖ Sanitary inspection of premises

### 9.2.4 Rules and Regulations

- ❖ Kumba City Council bye-laws for solid waste management

### 9.2.5 Recommended Projects

- ❖ Sensitisation of the population on pre-collection management of solid waste
- ❖ Selection and development of waste disposal site
- ❖ Acquisition of waste management materials and equipment
- ❖ Kumba City Council capacity building in solid management

## **9.3 SEWAGE MANAGEMENT**

### **9.3.1 Existing Situation**

- ❖ Poorly constructed individual toilets and latrines
- ❖ Poorly constructed and managed septic tanks
- ❖ Several households without toilets
- ❖ Few public toilets

### **9.3.2 Objective**

- ❖ Provide Kumba City area with save and reliable individual and public sewage facilities

### **9.3.3 Management Processes and Procedures**

- ❖ Sanitary inspection of individual and public sewage facilities
- ❖ Procedures for control of construction individual and public sewage facilities

### **9.3.4 Rules and Regulations**

- ❖ Kumba City Council sewage management bye-laws

### **9.3.5 Recommended Projects**

- ❖ Construction of public toilets and conveniences

## **9.4 POLLUTION**

### **9.4.1 Existing Situation**

- ❖ Watercourses and water bodies polluted with solid, liquid and chemical waste
- ❖ Air is continuously polluted by exhaust fumes, smoke and dust
- ❖ Rampant uncontrolled noise from motor repair garages and commercial enterprises
- ❖ Unpleasant visual environment

### **9.4.2 Objective**

- ❖ The overall objective is to continuously minimize water, air, noise and visual pollution within the Kumba City planning area.

### **9.4.3 Rules and Regulations**

- ❖ Land use zoning regulations
- ❖ Solid and liquid waste bye-laws and control measures

## **9.5 PROTECTED AREAS**

### **9.5.1 Existing Situation**

- ❖ Unprotected water catchment
- ❖ Irregular occupation and construction on public right-of-ways
- ❖ Occupation and construction along watercourses
- ❖ Destruction of land forms and scenic sites

### **9.5.2 Objective**

The overall objective is to prevent the occupation of protected and risky sites and eventually reclaim those that have been occupied.

### **9.5.3 Management Processes and Procedures**

- ❖ Identify all protected areas and delimit them
- ❖ Prepare a text declaring protected sites
- ❖ Carry out feasibility studies on reclaiming occupied protected areas
- ❖ Control the occupation of declared protected areas

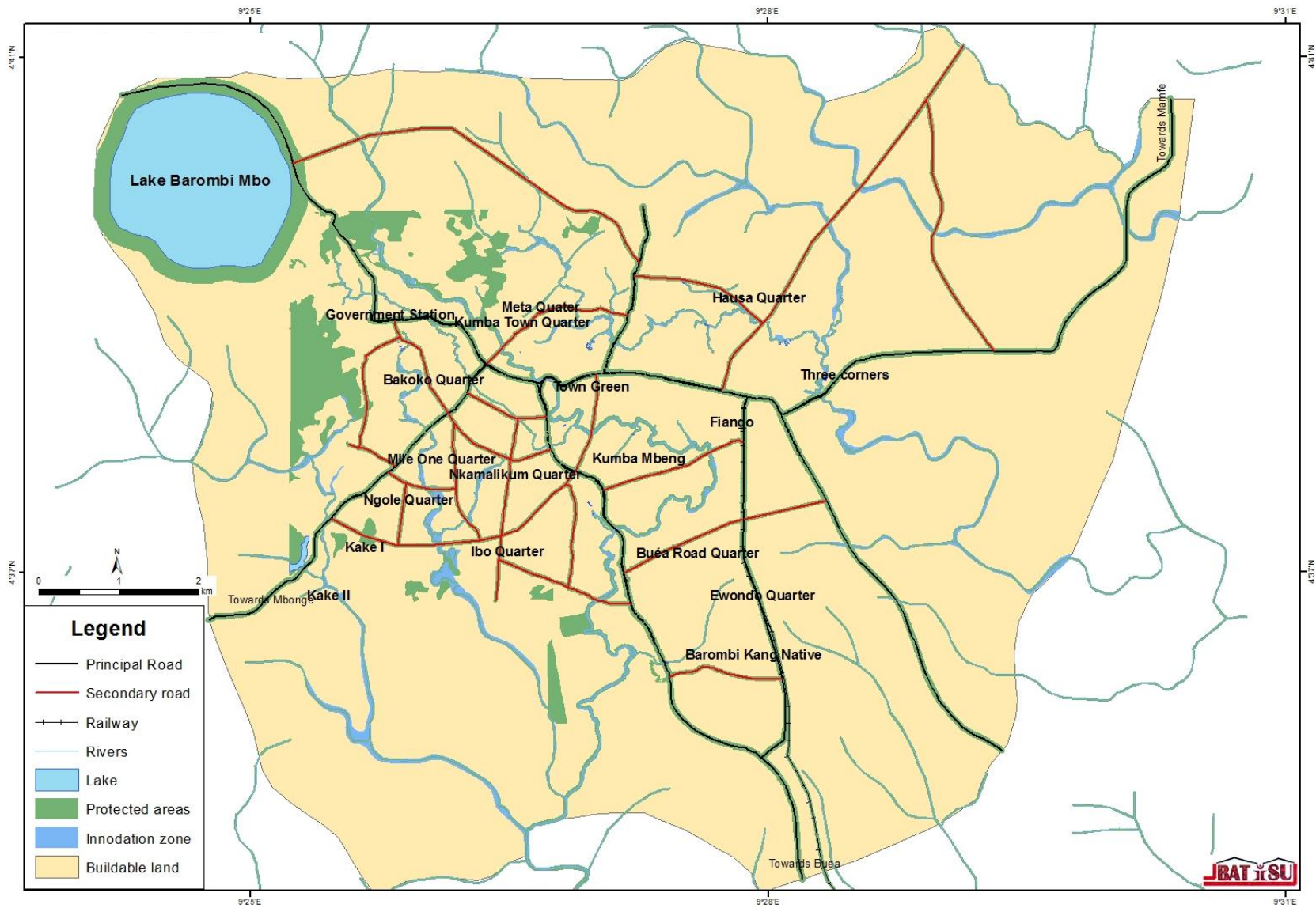
### **9.5.4 Rules and Regulations**

See sectoral grill and standards

### **9.5.5 Recommended Projects**

### **9.5.6 Reclamation of occupied protected areas**

### **9.5.7 Resettlement of those displaced by reclamation schemes**



Source: BATISU Sarl

Figure N° 27: Environmentally Protected Areas

## **9.6 ENVIRONMENTAL IMPACT ASSESSMENT**

### **9.6.1 Existing Situation**

- ❖ Macro and micro environmental impact assessment not regularly carried out
- ❖ Undesirable environmental impacts

### **9.6.2 Objective**

The overall objective is to develop Kumba City Council capacity in macro and micro environmental impact assessment

### **9.6.3 Processes and Procedures**

- ❖ Prepare and approve Kumba City Council macro and micro environmental assessment bye-laws
- ❖ Carry out public sensitization on macro and micro environmental assessment
- ❖ Develop Kumba City Council's capacity in macro and micro environmental impact assessment
- ❖ Institute an environment impact tax for Kumba City Council area

## Project Sheet

**Table N° 13 : Project Sheet**

Code	Nomenclature	Time Frame	Present State	Objectives	Potential Sponsors	Beneficiaries	Estimated Cost
9.5.1	Reclamation of occupied protected areas	2015-2027	Continuous occupation of risky areas	Protect risky areas	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> <li>▪ MINH DU</li> </ul>	<ul style="list-style-type: none"> <li>▪ General public</li> <li>▪ Occupants</li> </ul>	50,000,000
9.5.2	Resettlement of those displaced by reclamation schemes	2017-2027	Not displaced yet	Permanently settle those displaced	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> <li>▪ MINH DU</li> </ul>	Those displaced	50,000,000
9.5.3	Selection and devevelopment of solid waste treatment and disposal site	2013	Site identified and not formally selected and acquired	Safe treatment and disposal of solid waste	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	Residents of Kumba City	50,000,000

Source: BATISU Sarl



## **KUMBA CITY MASTER PLAN**

# **10.0 ECONOMIC BASE PLAN**

## **PLANNING REPORT**



# 10.0 ECONOMIC BASE PLAN

## 10.1 EXISTING SITUATION

The current state of the economic base of Kumba is weak and unstable and characterized by: -

- ❖ Over dependence on a largely primary subsistent agricultural production and natural resource exploitation;
- ❖ Weak secondary sector whereby raw materials are simply exported or sold locally without adding value through processing;
- ❖ Largely informal tertiary sector based on buying, selling and offering of rudimentary services;
- ❖ Timid quaternary sector of research, consultancy and information technologies;
- ❖ Un-exploitation of available local, sub-regional and regional economic potentials;
- ❖ More money leaves Kumba than it enters and the circulation of money locally is slow and unsteady.

The ultimate undesirable outcomes of the current economic base of Kumba are entrenching poverty resulting from extremely low incomes, unemployment and under employment as returns to production and rendering services extremely low.

## 10.2 OBJECTIVE

The overall objective of the economic base plan of Kumba is to strengthen, diversify and stabilize the economic base from a largely primary and rudimentary secondary to a modern tertiary sector by: -

- ❖ Increasing and valorizing agricultural production and natural resource exploitation within the sub-region so as to increase returns for local produce and products;
- ❖ Transforming local produce and raw materials for local consumption and export so as to add value to the produce and natural resources of the sub-region;
- ❖ Developing and expanding the industrial and manufacturing base of Kumba and its environs;
- ❖ Optimizing the exploitation of touristic potentials of Kumba and its environs as a main source of generating revenues;
- ❖ Expanding and upgrading the service and quaternary activities so as to increase the circulation of money and attract external capital into the economy;
- ❖ Creating a functional, stable and reliable financial and capital market by expanding local savings and attracting external capital;
- ❖ Reorganizing informal economic activities while also restructuring and upgrading formal economic activities;
- ❖ Ensuring that money flows and circulates in kumba more than it leaves.

## **10.3 ECONOMIC BASE STRATEGIES**

### **10.3.1 Agricultural Production and Natural Resource Exploitation**

Increase and improve on agricultural production and raw material exploitation by:

- ❖ Establishing a branch of chamber of agriculture, livestock and forestry in Kumba
- ❖ Extending credit and investments to agricultural production and natural resource exploitation
- ❖ Modernizing agricultural production and natural resource exploitation techniques and technologies
- ❖ Increasing the scale of agricultural production and raw material exploitation from individual to medium and large size production
  - Cash crop production
  - Food crop production
  - Livestock production
  - Horticulture
- ❖ Ensuring access to affordable and appropriate inputs into agricultural and raw material exploitation
- ❖ Guaranteeing the marketing of agricultural produce and raw materials

### **10.3.2 Processing of Produce and Raw Materials**

Expand and upgrade agro-industrial processing and raw material transformation in the sub-region:

- ❖ Establish a branch of chamber of commerce, trade and industry in Kumba
- ❖ Agro-industrial processing of:
  - Citrus fruit juice
  - Oil palm products
  - Shear butter
  - Confectionary
  - Cassava and sweet potato flour
  - Spices
- ❖ Processing of non-timber forest products
- ❖ Wood processing
- ❖ Animal feed inputs and products

### **10.3.3 Industrial and Manufacturing Base**

Expand and upgrade the industrial and manufacturing sector in the sub-region:

- ❖ Manufacturing of inputs into production
- ❖ Maintenance and repair industry
  - Auto mechanic

- Electronic
- Electricity
- Digital

#### **10.3.4 Tourism**

Upgrade and improve touristic facilities and services in Kumba and environs:

- ❖ City Cultural Centre
- ❖ Kumba Town Green
- ❖ Barombi Lake and Forest reserve
- ❖ Kumba City Parks and Gardens
- ❖ Kumba shopping mall

#### **10.3.5 Service Activities**

Expand and upgrade service activities in Kumba and environs:

- ❖ Trade and commerce
- ❖ Wholesale services
- ❖ Modern shopping mall
- ❖ Retail stores
- ❖ Government services
- ❖ Transportation facilities and services
- ❖ Training and education services

#### **10.3.6 Quaternary Services**

Reinforce and expand quaternary services in Kumba and environs:

- ❖ Consultancy
- ❖ Contracting
- ❖ Research
- ❖ Information technology centre

#### **10.3.6 Financial and Capital Market**

Expand and upgrade financial and capital services in Kumba:

- ❖ Sub-regional banking centre

- ❖ Sub-regional stock exchange
- ❖ Sub-regional micro finance centre

### **10.3.7 Informal and Formal Economic Activities**

Organize and provide financial and management assistance to informal economic operators while upgrading and increasing formal economic activities and providing financial and management assistance to formal economic operators.

### **10.3.8 Money Flow**

Accelerate the circulation of money within the sub-region:

- ❖ Internal circulation of money

Curb the unnecessary out flow of capital from sub-region:

- ❖ Out flow of money
  - Transmittances
  - Investments out of Kumba

Increase and accelerate the inflow of capital into the sub-region:

- ❖ In flow of money
  - Transmittances
  - External investments

### **10.3.9 Corporate Investments**

Create conducive conditions for promoting corporate investments in the sub-region:

- ❖ Kumba stock exchange
- ❖ Cooperative societies
- ❖ Small and medium size enterprises
- ❖ Registration of business enterprises

### **10.3.10 Construction Industry**

Expand and upgrade the construction industry in the sub-region as a major source of employment and income generation:

- ❖ National projects in Kumba and environs
- ❖ Regional projects

- ❖ Kumba City Council projects
- ❖ Kumba I, II and III councils' projects
- ❖ Private sector construction projects
- ❖ Community projects

#### **10.4 Recommended Projects**

***10.4.1 Carry out an industrial and manufacturing base study of Kumba and its sub-region***

***10.4.2 Carry out a financial market feasibility study for Kumba***

## Project Sheet

**Table N° 14 : Project Sheet**

<b>Code</b>	<b>Nomenclature</b>	<b>Time Frame</b>	<b>Present State</b>	<b>Objectives</b>	<b>Potential Sponsors</b>	<b>Beneficiaries</b>	<b>Estimated Cost</b>
10.4.1	Carry out an industrial and manufacturing base study of Kumba and its sub-region	2013-2015	Not done	Improve understanding of industrial potentials	KCC	Potential investors	100,000,000
10.4.2	Carry out a financial market feasibility study for Kumba	2013-2015	Not done	Increase understanding of finance and capital market potentials	KCC	<ul style="list-style-type: none"> <li>▪ Residents</li> <li>▪ Investors</li> </ul>	50,000,000

Source: BATISU Sarl

## **KUMBA CITY MASTER PLAN**

# **11.0 INSTITUTIONAL CAPACITY BUILDING PLAN**

## **PLANNING REPORT**





# **11.0 - INSTITUTIONAL CAPACITY BUILDING PLAN**

## **11.1 EXISTING SITUATION**

The current institutional environment in Kumba is largely characterized by ineffective local governance and weak partnership manifested by: -

- ❖ Ineffective public participation in decision making
- ❖ Inadequate transparency in public decision-making
- ❖ Inadequate accountability to the public
- ❖ Weak and unproductive local partnership
- ❖ Unsustainable external partnership
- ❖ Unsatisfactory communication with the public

## **11.2 OBJECTIVE**

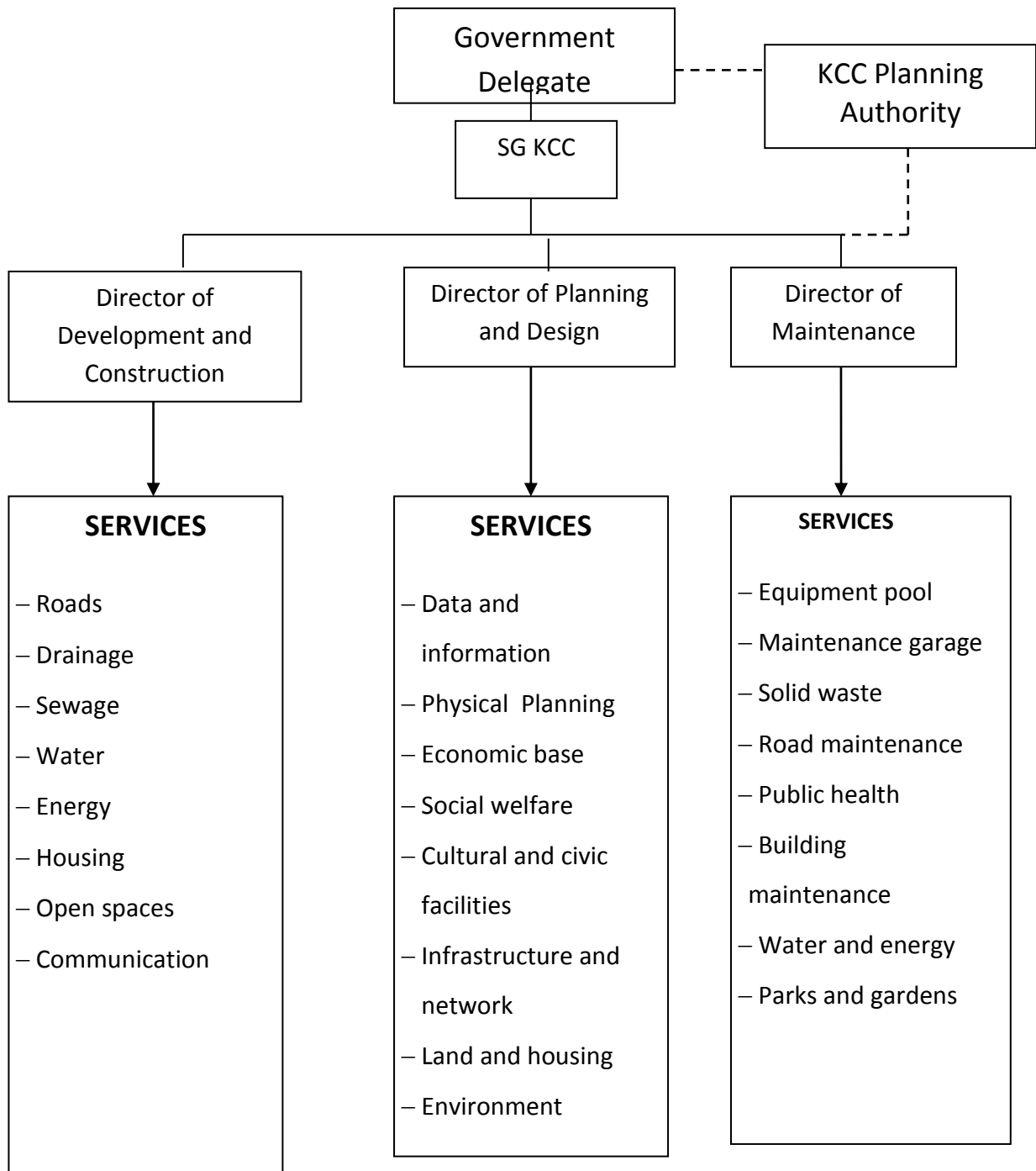
The institutional objective is to ensure an effective local governance and productive partnership with respect to urban planning, design, development and maintenance by: -

- ❖ Reorganizing the Technical Department of KCC
- ❖ Creating a Kumba City Planning Authority
- ❖ Establishing planning and land development processes and procedures
- ❖ Developing effective and sustainable partnerships
- ❖ Establishing a Kumba City Communication program

## **11.3 ORGANIZATIONAL STRUCTURE OF KCC TECHNICAL DEPARTMENTS**

The continuous planning, development and maintenance of Kumba shall strongly depend on the effective organization and functioning of the technical services of the City Council. In doing so, a clear distinction should be made between the responsibilities for planning, design, land development, construction and maintenance.

### 11.3 ORGANIZATIONAL STRUCTURE OF KCC TECHNICAL DEPARTMENTS



**Graph N° 4 : Organizational structure of Kumba City Council technical services**

Source: BATISU Sarl

## **11.4 KUMBA CITY PLANNING AUTHORITY (PA)**

### **11.4.1 What is a Planning Authority?**

A Planning Authority is an independent body of committed, experienced and competent persons with demonstrated stakes who have been selected and have accepted to serve the residents and officials of Kumba City Council with respect to the planning and development of the City.

### **11.4.2 Terms of reference for a Planning Commission**

The proposed terms of reference for Kumba City Planning Authority shall include among others the following: -

- ❖ Provide a realistic vision for the planning and development of Kumba
- ❖ Receive all applications for development within Kumba City planning area
- ❖ Send all applications to KCC planning and design department
- ❖ Receive recommendations from KCC planning and design department
- ❖ Make recommendations to Government Delegate for approval or reject

### **11.4.3 The members of Kumba City Planning Authority (PA) should include:**

- ❖ Chair person: independent
- ❖ Vice Chair person: independent
- ❖ Secretary: independent
- ❖ KCC: member
- ❖ Kumba I: member
- ❖ Kumba II: member
- ❖ Kumba III: member

## **11.5 PLANNING AND LAND DEVELOPMENT PROCESSES AND PROCEDURES**

The Kumba City Planning Authority shall ensure that the following planning and land development processes and operational procedures shall be effectively applied and respected: -

- ❖ Delimitation of Kumba City planning area
- ❖ Delimitation of Kumba urban districts
- ❖ Declaration of priority planning areas (PPA)
- ❖ Preparation of urban district plans
- ❖ Preparation of neighborhood plans
- ❖ Planning certificates
- ❖ Building permits
- ❖ Certificate of fitness and conformity
- ❖ Declaration of protected areas

- ❖ Acquisition and preservation of land for public and community use
- ❖ Planning appeal procedures

## **11.6 DEVELOPMENT OF PARTNERSHIP**

To mobilize the necessary resources needed to implement this plan and continuously planning of Kumba requires that Kumba City Council and its sub-divisional councils should develop and sustain the following productive partnership: -

- ❖ Local partnership:
  - Kumba City Council and sub-divisional councils
  - Kumba City Council and Mbonge Tombel and Konye councils
  - Council and land owners partnership
  - Council and private investor partnership
  - Community development
  - Real estate promoters
  - Cultural and development associations and groups
  - Partnership with local financial institutions
  
- ❖ Inter-council partnership:
  - Twinning with other councils in Cameroon
  
- ❖ Partnership with government ministries and departments:
  - MINH DU
  - MINDAF
  - MINPAT
  - MINATD
  - MINEPNMINEBASE
  - MINESEC
  - MINSANTE
  - MINEE
  - CAMWATER
  - AES-SONEL
  
- ❖ Partnership with Public Agencies:
  - MAETUR
  - SIC
  - MAGZI
  - SOWEDA
  - CFC

- ❖ External partnership:
  - Funding partners
  - Twinning with councils out of Cameroon

## **11.7 KUMBA CITY COMMUNICATION PLAN**

- ❖ Kumba City Planning Workshop
- ❖ Public information instruments
  - Kumba City Council weekly news letter
  - Kumba City quarterly magazine
- ❖ Radio and television programmes
- ❖ Workshops and seminars
- ❖ Kumba City Council public relation officer

## **11.8 PRIORITY PROJECTS**

**11.8.1 Employment of adequate and competent technical personnel**

**11.8.2 Setting up of Kumba City Planning Authority**

**11.8.3 Kumba City planning and development processes and procedures**

**11.8.4 Kumba City communication plan**

**11.8.5 Creation of Kumba City partnership platform**

## Project Sheet

**Table N° 39 : Project Sheet**

Code	Nomenclature	Time Frame	Present State	Objectives	Potential Sponsors	Beneficiaries	Estimated Cost
11.8.1	Employment of adequate and competent technical personnel	2015-2022	Inadequate, inexperienced and incompetent technical personnel	Provide KKC with an operational organizational structure and adequate technical person for planning, development and maintenance of Kumba.	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ MINATD</li> </ul>	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> <li>▪ Community</li> </ul>	1,000,000,000
11.8.2	Setting up of Kumba City Planning Authority	2015	Ad hoc development committee	Empowering an independent body to guide the planning and development of Kumba	<ul style="list-style-type: none"> <li>▪ PM Office</li> <li>▪ MINATD</li> <li>▪ MINHDU</li> </ul>	<ul style="list-style-type: none"> <li>▪ Residents of Kumba</li> <li>▪ Officials of Kumba City Council</li> </ul>	10,000,000
11.8.3	Kumba City planning and development processes and procedures	2013-2015	Unavailable and ineffective	Provide operational procedures for planning and development	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ MINHDU</li> <li>▪ MINATD</li> </ul>	<ul style="list-style-type: none"> <li>▪ Officials of KCC</li> <li>▪ Land developers</li> <li>▪ Residents</li> </ul>	25,000,000

11.8.4	Kumba City communication plan	2013-2015	Weak communication channels	Effective communication programme assured	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ MINATD</li> <li>▪ NGO's</li> </ul>	<ul style="list-style-type: none"> <li>▪ Residents</li> <li>▪ Land developers and investors</li> <li>▪ KCC</li> </ul>	50,000,000
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Source: BATISU Sarl

## **KUMBA CITY MASTER PLAN**

# **I 2.0 FIVE YEARLY PROGRAMME OF IMPLEMENTATION**

## **PLANNING REPORT**





# 12.0 FIVE YEARLY PROGRAMME OF IMPLEMENTATION

Table N° 40 : Five yearly programme of implantation

Code	Projects	2012-2017	2017-2022	2022-2027
01	Preparation of urban district plans	██████████		
02	Preparation of neighborhood plans		██████████	
03	Upgrading of hierarchy of urban roads		██████████	
04	Development of priority urban district infrastructure			██████████
05	Development of priority neighborhoods			██████████
06	Priority housing programmes		██████████	██████████
07	Upgrading of slum areas			██████████
08	Redevelopment of Kumba CBD			██████████
09	Development of district service centres			██████████
10	Development of Kumba industrial zone		██████████	██████████
11	Development Kumba shopping mall			██████████

Source: BATISU Sarl

## 2012-2017 Implementation Program

**Table N° 40 : Five yearly programme of implantation**

projects	2012	2013	2014	2015	2016	2017
Official delimitation of Kumba City Planning Area		—————				
Delimitation of proposed urban districts		—————				
Carry out five yearly censuses of Kumba City Area				—————		
Acquisition of satellite images to cover the whole planning area				—————		
Preparation of Urban District Development Plans		—————				
Preparation of Neighborhood Plans in Priority Development Area (PDA)		—————				
Preparation of CBD and Urban District Service Centre Plans		—————				
Preparation of Kumba City land use rules and regulations				—————		
Rehabilitation of tarred urban roads				—————		
Design of natural drainage networks				—————		
Covering of existing constructed open side drains along tarred roads		—————				
Construction of adequate public conveniences		—————				
Effective and regular control of private sewage facilities				—————		

Protection of water catchment						
Rehabilitation and regular maintenance of water supply networks and installations						
Put in place water quality assurance measures						
Carry out studies for upgrading the water supply capacity						
Diversification of sources of energy						
Extension and upgrading of existing electricity networks						
Public street lighting						
Extend communication fiber network to Kumba						
Rehabilitate and upgrade existing fixed telephone networks and installations						
Upgrade mobile telephone facilities						
Selection, acquisition and reservation of sites for Council motor and lorry parks						
Rehabilitation and upgrading of existing council motor parks						
Preparation of Kumba City parking rules and regulations						
Facilitate access to housing finance and construction techniques and technologies						
Facilitate access to housing land for the poor						
Facilitate access to basic services and utilities in housing areas						
Construction of 1000 social houses yearly						
Rehabilitation and upgrading of existing schools						

Acquire and reserve sites for educational facilities						
Provide new educational facilities to match growing demand						
Rehabilitate and upgrade existing public health facilities						
Acquire and reserve sites for future public health facilities						
Carry out an industrial and manufacturing base study of Kumba and its sub-region						
Carry out a financial market feasibility study for Kumba						
Setting up of Kumba City Planning Authority						
Kumba City planning and development processes and procedures						
Kumba City communication plan						
Studies for Widening Kumba City and Kumba I, II and III development tax bases						
Kumba City Development Platform						
Feasibility study for community participation in development						

Source: BATISU Sarl

## **KUMBA CITY MASTER PLAN**

# **13.0 FINANCIAL PLAN**

## **PLANNING REPORT**



# 13.0 FINANCIAL PLAN

## 13.1 EXISTING SITUATION

The current levels of KCC revenue are largely inadequate and insufficient to ensure the effective planning, development and management of Kumba. The local finance situation is generally characterized by: -

- ❖ Inadequate, unreliable and unstable local finance
- ❖ Inadequate transparency in public expenditure
- ❖ Weak local tax base
- ❖ Leakage in public revenue collection
- ❖ Inadequate government credits to Meme Division
- ❖ Inadequate external funding

## 13.2 OBJECTIVES

- ❖ The main objective of the financial plan is to provide Kumba City Council with adequate, stable and reliable sources and funds for the continuous planning, development, maintenance of Kumba City.

## 13.3 FINANCE MOBILIZATION PLAN

### 13.3.1 Widening Kumba City and Kumba I, II and III development tax bases

### 13.3.2 Increasing Kumba City and Kumba I, II and III annual capital investment for planning, development and maintenance:

- ❖ Increasing public investments in Kumba and the sub-region through the national programme and strategies of decentralization especially from: -
  - MINH DU
  - MINDAF
  - MINTP
  - MINEE
  - MINEBASE
  - MINSEC
  - MINSANTE
  - MINEPN
- ❖ Increasing the level of public agency investments in Kumba by: -

- MAETUR
  - FEICOM
  - SIC
  - MAGZI
  - CFC
  - SOWEDA
- ❖ Increasing the level of external funding of development projects in Kumba by: -
- World Bank
  - ADB
  - UN-HABITAT
  - Shelter Afrique
  - European Union
  - French Cooperation Mission
  - Etc.
- ❖ Increasing the level of community participation in development through the:
- Organization of quarter/neighborhood development associations
  - Creation of urban district development unions
  - Organization of monthly community work

## **13.4 PRIORITY PROJECTS**

### **13.4.1 Studies for Widening Kumba City and Kumba I, II and III development tax bases**

### **13.4.2 Kumba City Development Platform**

### **13.4.3 Feasibility study for community participation in development**

## Project Sheet

**Table N° 41 : Projet Sheet**

Code	Nomenclature	Time Frame	Present State	Objectives	Potential Sponsors	Beneficiaries	Estimated Cost
13.4.1	Studies for Widening Kumba City and Kumba I, II and III development tax bases	2013-2015	Never done	Increase sources and levels of council revenue	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ MINATD</li> </ul>	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	50,000,000
13.4.2	Kumba City Development Platform	2015	None existent	Attract technical and financial assistance for KCC	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ MINATD</li> </ul>	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	50,000,000
13.4.3	Feasibility study for community participation in development	2013-2015	Inadequate community involvement and participation	Enhance community ownership and contributions	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ MINATD</li> <li>▪ MINH DU</li> </ul>	<ul style="list-style-type: none"> <li>▪ KCC</li> <li>▪ Kumba I, II and III</li> </ul>	25,000,000

Source: BATISU Sarl



# **KUMBA CITY MASTER PLAN**

## **I 4.0 ANNEXES**

### **PLANNING REPORT**



