

REPUBLIQUE DU CAMEROUN

Paix – Travail – Patrie  
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REPUBLIC OF CAMEROON

Peace – Work – Fatherland  
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**MINISTRY OF HOUSING AND URBAN DEVELOPMENT**

**DIVISION OF STUDIES, PLANNING AND COOPERATION**  
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**PSU**

**SUMMARY URBAN DEVELOPMENT PLAN**

**Phase III**

**Planning Proposals**

**Wum Town**

**BET: CAMGIS Plc.**

**Financed: PIB 2012**

**DECEMBER 2012**



**PSU**

**SUMMARY URBAN DEVELOPMENT PLAN**

**Phase III**

# **Planning Proposals**

**Wum Town**

**DECEMBER 2012**

**THIS PROJECT WAS REALISED WITH THE COLLABORATION OF:**

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## APPROVAL SHEET

REGION: NORTH WEST REGION  
DIVISION: MENCHUM  
SUBDIVISION: WUM CENTRAL

### WUM COUNCIL

#### EXTRACT OF THE REGISTRY OF THE MUNICIPAL COUNCIL DELIBERATIONS OF WUM COUNCIL TODAY THE 24<sup>TH</sup> DAY OF JANUARY 2013 IN THE WUM TOWN HALL.

NUMBER OF COUNCILLORS OF WHICH THE COUNCIL IS MADE UP OF \_\_\_\_\_  
NUMBER OF COUNCILLORS PRESENT AT THE SESSION \_\_\_\_\_  
NUMBER OF COUNCILLORS ABSENT \_\_\_\_\_

In the year 2013, on the 24<sup>th</sup> of January 2013, the Municipal Council of Wum Council, summoned by the Lord Mayor. In pursuance with Par III, Section 17 of Law N° 2004/018 of 22<sup>nd</sup> July 2004 laying down rules applicable to councils, met in the Wum Town Hall under the Chairmanship of NJUKWE Charles KWE.

#### DELIBERATION N° 001/2013 OF 24<sup>TH</sup> JANUARY 2013 BEARING ON THE ADOPTION OF WUM COUNCIL SUMMARY URBAN DEVELOPMENT PLAN AS A WORKING DOCUMENT.

MINDFUL of the Constitution of the Republic of Cameroon;

MINDFUL of Law No. 2004/17 of 22<sup>nd</sup> July 2004 on the Orientation of Decentralisation;

MINDFUL of Law N° 2004/18 of 22<sup>nd</sup> July 2004 to lay down rules applicable to Councils;

MINDFUL of Decree N° 77/91 of 25<sup>th</sup> March 1977 determining the supervisory powers over Councils;

MINDFUL of Decree N° 2008/376 of 12<sup>th</sup> November 2008 to lay down the powers and duties relating to the Administrative Organization of the Republic of Cameroon;

MINDFUL of Decree N° 2008/377 of 12<sup>th</sup> November 2008 to lay down the powers and duties of heads of Administrative Units as well as the organization and functioning of their services;

MINDFUL of Decree N° 2012/480 of 22<sup>nd</sup> October 2012 bearing on the appointments of Senior Divisional Officers in Cameroon wherein Mr. EMVOUTOU BITA BENOIT WILLIAM was appointed Senior Divisional Officer for Menchum;

MINDFUL of Law N° 2004/003 of 21<sup>st</sup> April 2004 to regulate town planning in Cameroon;

MINDFUL of Decree N° 2008/0736/PM of 23<sup>rd</sup> April 2008 to lay down conditions governing the preparation and amendment of Urban Planning Documents;

CONSIDERING Article No. 00313/O/MINAT/D/DCTD of 5<sup>th</sup> September 2007 confirming the election of Mr. NJUKWE Charles KWE as Lord Mayor of Wum Council;

CONSIDERING Partnership Agreement N° 0015/E2/MINDUH/SG of 11<sup>th</sup> November 2011 between the State of Cameroon and Wum Council;

CONSIDERING the studies carried out elaborating the Summary Urban Development Plan for Wum Town, which studies were duly validated by due process;

CONSIDERING the Extra-Ordinary Session of Wum Council extended to Service Heads held on the 24<sup>th</sup> January 2013;

**HEREBY DELIBERATES**

ARTICLE 1: That the Wum Council Summary Urban Development Plan and the accompanying Planning Rules and Regulations have hereby been approved.

ARTICLE 2: That the Summary Urban Development Plan for Wum Town shall be implemented as the urban planning document for Wum Town and shall hereafter be enforceable before the competent courts.

ARTICLE 3: That this deliberation shall be forwarded to the Supervisory Authority for necessary approval.

DELIBERATED AT WUM THE \_\_\_\_\_

MINUTES SECRETARY  
THE SECRETARY GENERAL  
WUM COUNCIL

CHAIRMAN  
THE LORD MAYOR  
WUM COUNCIL

THE SENIOR DIVISIONAL OFFICER  
MENCHUM

## STRUCTURE OF THE PLANNING PROPOSALS REPORT

This report is in five parts with thirteen chapters:

### PART I: INTRODUCTION

#### **Chapter One: Introduction**

The single chapter of part one presents the general context and orientation of the study as required by the contract.

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### PART II: SUMMARY, SYNTHESIS OF URBAN DIAGNOSIS, AND CONFIRMATION OF PROBLEM TREES AND OBJECTIVES

Part two has three chapters consisting of:

**Chapter Two** – This is a **summary** of the proposals in the planning proposals.

**Chapter Three** – This is a **Synthesis of Urban Diagnosis** done in the field and presented in the **Diagnosis Report**.

**Chapter Four** – Uses trees to confirm the **Problems** and set the objectives to attain in **Objectives Trees**.

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### PART III: PLANNING PROPOSALS

This part which deals with planning proposals proper has six chapters as follows:

**Chapter Five - Urban spatial structure:** This chapter develops and applies the principles of structuring and organizing space within the recommended planning area. It further explains how the proposed structuring and organization of space can be realized;

**Chapter Six - Proposed Land Use:** This chapter proposes a pattern of land use zoning in Wum based on some basic criteria and principles and demonstrates how land use can be managed. It also determines the possible housing and land development needs. It further demonstrates how the housing and land development needs can be realized.

**Chapter Seven - Public and Community Facilities:** This chapter uses the projected population to estimate the demand and need gap for public and community facilities and selectively demonstrates how some of these basic facilities can be provided and managed.

**Chapter Eight - Urban Networks and Infrastructure:** This chapter proposes ambitious but realistic forward-looking network and infrastructure plans, which constitute the fundamental

framework for the continuous organization and development of the Wum Town. It also proposes strategies for realizing and managing these networks and infrastructure.

**Chapter Nine - Urban Environment:** Proposes strategies for managing the environmental impacts and concerns in the process of urban development.

**Chapter Ten - Urban Economic Base and Institutional Development:** Proposes strategies for developing the economic base of Wum Town, improving on local finance, partnership and local governance for urban development.

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## **PART IV: IMPLEMENTATION STRATEGIES**

**Chapter Eleven:** This single chapter deals with the implementation strategies by stating:

1. Policy orientations;
  2. Strategic guidelines;
  3. Operational procedures for taking action;
  4. Roles and responsibilities of the different actors involved in the process of developing Wum Town.
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## **PART V: PROGRAMMING**

**Chapter Twelve – Programming of Activities:** In tabular form, this chapter lists out most of the sectors, projects identified, current state, proposed actions and actors involved in the realisation of these projects.

**Chapter Thirteen – Simplified Environmental Impact Management Plan:** This chapter looks at the impact which the realisation of proposed projects would have on the environment of Wum Town. It also prescribes the mitigation measures to be taken to alleviate the negative impacts.



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AES-SONEL	American Energy Supply - <i>Société Nationale d'Electricité</i>
CAMGIS	Cameroon Geographic Information System
CAMTEL	Cameroon Telecommunications
CAMWATER	Cameroon Water
CDE	<i>Camerounaise Des Eaux</i>
CIG	Common Initiative Group
CSO	Civil Society Organisation
DD-MINH DU	Divisional Delegation of Housing and Urban Development
DEPC	Division of Studies, Planning and Cooperation
DMIRD	Division for Maintenance of Infrastructure and Rural Development
EIG	Economic Interest Group
FEICOM	<i>Fond d'Equipement Intercommunale</i>
FIMAC	<i>Financement des Microréalisations Agricoles et Communautaires</i>
GPS	Global Positioning System
HT	High Tension
ICT	Information and Communications Technologies
IRAD	Institute of Agricultural Research and Development
m.a.s.l.	Metres above sea level
MESOWEFA	Menchum Social Welfare Association
MIDENO	North West Development Authority
MINACULT	Ministry of Arts and Culture
MINADER	Ministry of Agriculture & Rural Development
MAETUR	Urban and Rural Lands Development Authority
MINAS	Ministry of Social Affairs
MINATD	Ministry of Territorial Administration & Decentralization
MINCOM	Ministry of Communication
MINCOMMERCE	Ministry of Commerce
MINDCAF	Ministry of Lands, Surveys & State Property
MINEDUB	Ministry of Basic Education
MINEE	Ministry of Energy & Water Resources
MINEFOP	Ministry of Employment, Professional & Technical Training
MINEPAT	Ministry of Economy, Planning, & Regional Development
MINEPDED	Ministry of Environment, Nature Protection & Sustainable Development
MINEPIA	Ministry of Livestock, Fisheries & Animal Industries
MINESEC	Ministry of Secondary Education
MINFI	Ministry of Finance
MINFOF	Ministry of Forestry & Wildlife
MINH DU	Ministry of Housing & Urban Development
MINIMIDT	Ministry of Industry, Mines & Technological Development

MINJEC	Ministry of Youth & Civic Education
MINJUSTICE	Ministry of Justice
MINMAP	Ministry of Public Contracts
MINMEESA	Ministry of Small & Medium-Sized Enterprises, Social Economy & Handicraft
MINPOSTEL	Ministry of Post & Telecommunications
MINPROFF	Ministry of Women Empowerment & Family Protection
MINSANTE	Ministry of Public Health
MINSEP	Ministry of Sports & Physical Education
MINT	Ministry of Transport
MINTOUL	Ministry of Tourism & Leisure
MINTP	Ministry of Public Works
MINTSS	Ministry of Labour & Social Security
MIRUDEP	Menchum Integrated Rural Development Project
MTN	Mobile Telephone Network
NGO	Non-governmental Organisation
OVC	Orphans and Vulnerable Children
PNGE	National Environmental Management Plan ( <i>Plan national de gestion de l'environnement</i> )
PSU	Summary Urban Development Plan ( <i>Plan Sommaire d'Urbanisme</i> )
SIC	Cameroon Housing Loans Corporation
STRATAS	Strategic Action to Alleviate Suffering
VDA	Village Development Association



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## **EXECUTIVE SUMMARY**

## **Executive summary**

### **Introduction**

In the past few decades, the responsibility of developing planning documents has been given to the Municipalities. Later, Law N° 2004/003 of 21 April 2004, governing town planning in Cameroon, offered the opportunity to develop a new generation of urban planning documents to implement actions for a harmonious and coherent development of urban spaces.

The State of Cameroon, through the ministry in charge of Urban Development and Housing then (MINUH), initiated a programme to enable Councils to prepare planning documents. On 11 November 2011, Wum Council signed Council/State Partnership Agreement N° 0015/E/2/MINDUH/SG. In it, roles and responsibilities were spelt out. This Summary Urban Development Plan (PSU), which fixes "land use and defines the perimeter of each area of assignment. For each, it enacts in a summary manner, rules, restrictions and easements of special land use" is one of the benefits from this new perspective on urban planning and development.

### **Local Council Planning Obligations**

Wum Council, like other councils in Cameroon, has the obligation to plan and ensure systematic land development; compensate those who are affected negatively by planning and land development decisions through compensation and worsenment payments; resettle displaced residents and landlords under acceptable and improved conditions; take preventive measures to avoid haphazard land occupation and development.

### **Local Council Planning Powers**

For town planning and land development to be effective, local Councils need powers to prepare, implement and enforce the respect of town plans; these powers are now provided by the texts in force. The enforcement of this planning document is now assured by the law which has prescribed its approval process. In fact, this is the first such town plan west of the Mungo to have the force of law.

### **The Study**

The two main objectives of the Summary Urban Development Plan are to provide Wum Council with an enforceable town planning document to guide and control the development and management of Wum Town; and to provide Wum Council with a document to present to local and external partners when lobbying for funding for development projects.

The study went through three phases: the inception which did the groundworks; the diagnosis which collected data and information, analysed the problems of Wum Town; and the third phase which made the planning proposals. The participatory process involved all the stakeholders and local actors, who understood the process, integrated their ideas, and built balance and equity into the reports, and validated the work at each phase of the process. The stakeholders own the results.

### **Diagnosis**

#### **State of Urban Development**

During the past several years, urban population has grown enormously. Wum is characterised by increasing discomfort and inconvenience of the urban environment. The central problems of urban development contributing to these undesirable outcomes include, among others, the increasing degradation of the urban environment and a poor state of urban networks and infrastructure (especially urban roads and drainage). These are analysed in problem trees; solutions to the problems are presented in objectives trees, including, among others, ensuring a healthy urban environment, improving on the state of urban networks and infrastructure, ensuring the effective and efficient management of urban land, improving on the quality of housing, improving on the state of urban public and community facilities, ensuring equitable access to basic urban and social services, ensuring development of a strong and reliable economy, ensuring a stable and reliable local finance, and ensuring satisfactory local governance.

## **Proposals**

As a basis for the summary urban development plan for Wum Town, the elements of the town's spatial structure, in increasing order of size, are made up of plots, blocks, neighbourhoods, districts, small towns, and big towns; these levels are served by service centres that are arranged in a hierarchical structure. Each level has a threshold population needed to support the goods and services provided by each service centre, which is a central place.

Put in a different manner, the town or urban area is broken down into districts, each district is broken down into neighbourhoods, each neighbourhood into blocks, and each block is made up of individual plots, and each plot is made up of isolated dwelling(s). Each unit shall have an appropriate centre providing the range of goods and services for the threshold population at that level, with higher order centres providing all the goods and services provided by lower order centres.

The proposed urban spatial structure for Wum Town, as defined within the framework of this summary plan, is broken down into four districts: the northern, eastern, central and southern districts. The Ring Road (the National 11) for now runs through the town, cutting through each of the districts. This concept provides a framework for ensuring a balanced location of public and community facilities (schools, health units, markets, etc.) with respect to the pattern of distribution of both the resident and transit population.

## **Urban Consolidation/ densification**

The advantages of the strategy of urban consolidation, including lower expenditure in providing a high level of infrastructure and services; shorter travel time and lower money to accede to and use available facilities; effective and optimum use being made of available services and infrastructure; and greater access for many more people. Moreover, this strategy minimises sprawl and the urban area uses only as much land as it is socially, economically and culturally necessary.

This consolidation forms the background to the housing improvement programme proposed to include improving on existing housing areas through infilling of vacant housing plots and rehabilitation of dilapidated houses; and the creation of new housing areas through the development of private layouts, development of public layouts, and resettlement schemes.

## **Urban Transportation Networks and Infrastructure**

For most urban networks – urban transport, drainage, water supply and electricity distribution - a hierarchy is proposed and at each level, the networks have a function to perform. For sewage treatment, apart from the usual on-site treatment, a low-cost option using tanker-trucks is proposed, to be experimented in the proposed Wum Council Layout. Sensitization of local population on the many advantages of the system should get the system to be accepted and adopted at the small layout level where its advantages over other systems are most and it performs at its best.

## **Protected Areas**

Identifying protected areas within the town to include vulnerable, risky and scenic sites, and sites of cultural heritage like the shrines, these areas need to be protected, conserved, reclaimed and developed to reduce risk and natural disasters. They should not be occupied, developed and built upon.

## **Town Hygiene and Sanitation**

A holistic approach to managing urban hygiene and sanitation is recommended and involves a sensitisation programme on hygiene and sanitation; enforcement of hygiene and sanitation rules and regulations; and regular sanitary inspections, motivations and sanctions.

## **Solid Waste Management**

The management of solid waste involves sensitising the public and especially households on minimising the generation of solid waste at production sources; solid waste pre-collection management; enforcing rules and regulations on solid waste; encouraging the domestic separation and recycling of waste; ensuring the regular and

prompt collection, and disposal of solid waste by those in charge; and clarifying roles and responsibilities for solid waste management.

### **Landscape Architecture**

To improve on the landscape architecture of Wum Town, the guidelines recommended include: ensuring proper urban planning and design; ensuring systematic subdivision, development and construction on urban land; ensuring effective control of land development; preparing and implementing a landscape architecture or greening plan of the town; preparing and implementing land use plans and regulations.

### **Urban Economic Base**

To develop a firm, sound and durable economic base for Wum Town, one will have to move away from the sole proprietor, small enterprise ventures towards corporate management and investment.

Unfortunately, this will have to take time to bring tangible gains to the many in need. The greater hope lies in the development of cottage industries based on local raw materials, especially agricultural products which will engage many more people and bring to the family budget a sure even if small income.

### **Local Council Finances**

The level of local Council revenue will be increased and stabilized by: building up public confidence in the Council; reducing leakages of local Council revenue; and diversifying sources of local Council revenue.

### **Local Governance**

The implementation of this plan and the continuous planning and development of Wum shall depend on the development of functional institutional frameworks for the development of the Council's human, financial and material resources and for local governance. In the context of the new participatory and enabling environment for urban planning and development, the units to be created to assure effectiveness should be gender sensitive and have a balanced representation of elected representatives, local economic operators, local Council executives, the government, and civil society.

Independent personalities and professionals with clear visions and commitment for the development of Wum Town should chair the proposed organs. This would ensure continuity, sustainability and accountability in the organs. In this respect, specific studies and recommendations should be carried out on their creation and functioning.

### **Partnership**

While seeking new local and external collaborators and partners, Wum Council needs especially to effectively and efficiently use the facilities placed at its disposal by its partnership with MINH DU.

### **Programming**

The programming of the actions to be taken to implement this plan concludes the report.

## **PART I: INTRODUCTION**

## **CHAPTER ONE: GENERAL CONTEXT AND ORIENTATION OF THE STUDY**

### **1.1 Recall of Terms of Reference (ToR)**

The next few pages reiterate the terms of reference of the study.

#### **1.1.1 Context and Justification**

Cameroon, like most of the countries of the world, has an accelerated rate of urbanisation, today in excess of 50%. Since planning was not a major preoccupation of the structural adjustment years, this urban population growth took place under conditions of anarchy, with a double consequence of obstructing towns from fully performing their role in economic development, and also of generating poor living conditions.

During the last fifteen years, urban demographic growth was absorbed by construction in the urban periphery and by densification in the poor inner areas near the city-centres. One notes, therefore, an accentuation of problems, notably the lack of the mastery of the spatial occupation of land; the consequences were anarchy in urban development, the development of slums in some quarters, a degradation of the urban landscape, an increasing shortage in urban facilities, utilities and services, housing problems, land problems, etc. It is no exaggeration to say that this growth was more spontaneous than planned, since it was not accompanied by either by viable infrastructure or by adequate basic social amenities.

Besides, a number of small towns realised effervescent socio-economic change, which ought to be promptly directed. It is in this light that, in the framework of support to the Councils which the law now charges with the responsibility of preparing planning documents, and to face the needs of an increasingly growing and cosmopolitan population, and in the light of better structuring towns, that the State of Cameroon, through MINH DU, the Ministry of Housing and Urban Development, initiated the programme of equipping these small localities with simple planning documents: a PSU (a Summary Urban Development Plan), accompanied by layout plans to make it immediately implementable.

Consequently, the enacting of Law No. 2004/003 of 21 April 2004 to regulate town planning in Cameroon fits properly into the will of the State of Cameroon to better orient the development of towns. This law gives opportunity for a new generation of planning documents, which planning is (i) a solution to regain control of urban management, (ii) one of the major axes for implementing harmonious and coherent urban development. From then on, all urban centres, all urban councils, and all sub-divisional councils must have a land use plan or, failing which, a PSU (Summary Urban Development Plan), shall “determine land allocation and define the area of each of the allocated land use zones. It shall, in summary form, and for each of them, lay down the rules, restrictions and easements of special land use” (Law 2004/003 art 45).

#### **1.1.2 Study Objectives**

The main goal of the study is to produce a town planning document, in collaboration with the concerned local authorities who would approve it, which would serve as a guide for the occupation and the provision of infrastructure networks, for the entire council area. This document ought to precisely define rights-of-way for roads, utilities and services in such a way that the Lands Service may acquire them and register them in the public property of the State. This Summary Urban Development Plan (PSU) shall be drawn up following the dispositions of Law 2004/003 governing town planning and its implementation decrees.

#### **1.1.3 Expected Results**

The town concerned by this study is **WUM**.

The consultancy shall, in compliance with the law governing town planning and the regulations for implementing it, give the following results:

a) Analysis of the site to determine the zones suitable and those unsuitable for sustainable long-term urbanisation (drainage, excessively steep slopes, flood-prone areas, pollution, etc.), and zones needing protection for heritage and/or ecological reasons. This analysis shall be done by direct observation and on the basis of photographic and cartographic documents, either existing or to be elaborated.

From documentation either existing or to be elaborated, a survey within the population and analysis of diverse urban data one should:

- Concertedly fix the new urban boundary;
- Identify the strengths and constraints linked to the natural and created sites;
- Evaluate the level of economic activities;
- Evaluate the functioning of the council institution and the local financial capacities;
- Explain main principles of spatial organisation and urban management;
- Define the main characteristics of urban infrastructure and equipment to be projected, as well as new housing zones to be programmed. Special emphasis shall be put on anarchic or spontaneous areas and slum areas;

Study the conditions and possibilities of environmental protection and the protection of certain biotypes.

Considering the fast speed for preparing the document and its provisional nature, neither precise maps nor air photographs are needed for the purposes of this study. However, the Consultant should, where a cartographic document is not available, produce a sketch whose quality is good enough to enable the orientations of development in the study area to be permanently fixed.

The accuracy of the results shall be adapted to that of the basic document available.

The Consultant shall proceed in this analysis by directly visiting the site, making measurements and sketches, and use of existing documents.

b) Integration of the study area into the context of the whole agglomeration. In order to ensure the coherence of the propositions made with the rest of the agglomeration, the Consultant shall analyse the whole area and establish a sketch of the urban area of the agglomeration. Based on direct observations and existing guideline documents, the Consultant prepares a summary plan of the main structural elements and especially the road and drainage networks which will continue to the limits of the zone or through the study area, and fix the dimensions in collaboration with the technical services of the council or of the Ministry of Housing and Urban Development (MINHDU).

c) Analysis of the networks within the study area. The Consultant shall analyse the state of the network of roads, drainage, distribution of potable water and electricity within the study area and assess and locate weak spots and bottlenecks for which it shall propose solutions.

d) Preparation of a simplified land use plan. On the basis of the preceding analyses, the Consultant shall define a land use plan indicating non-buildable zones, buildable areas devoted to main land uses (housing, economic activities, industry, public facilities); and a layout of the primary and secondary infrastructures and the rights-of-way to be registered in the public property of the State or of the council.

For each of these zones, it shall produce simple regulations to apply when asking for town planning certificates, or building permits, or authorizations to lay out land or subdivide land into plots.

At the end of the study, the following results are expected:

- The justification report should bring out all the details and the potentials of the existing situation, planning constraints and potentials, perspectives for demographic and economic evolution, as well as the needs for facilities, utilities and basic urban infrastructure, in housing, and in land, evaluated from rapid surveys. Identification of perimeter within which equipment will grow concurrently with the perspectives for urban evolution.
- The plans accompanying the report should be produced at an appropriate scale of 1 :5000, and should clearly show :
  - o The existing situation;



- New development zones and structuring equipment;
- The linking of existing or projected roads, as well as technical networks (short and long term);
- The proposition of spontaneous housing zones to be restructured;
- Choice of a layout zone to be subdivided into plots;
- The urban limits and priority equipment.

e) Production, in accordance with the law governing town planning, of a layout plan subdividing land into plots on an area between 5 and 7 hectares for Lot 3 only.

The Consultant shall define in his offer the means and methods he proposes to use to execute these tasks. It should absolutely be remembered that these plans are provisional, while awaiting a Land Use Plan (POS), which is more detailed. Consequently, simple and fast methods should be used, concentrating on the basic documents available at the beginning of the study, giving priority to direct field enquiries and a simplified cartography. Only the limits of various zones and the rights-of-way for roads [and the reservations for public utilities should be precisely located (margin of error less than 1 metre), in the coordinate system used by the Surveys Service (for example using a GPS).

### 1.1.4 Completion Deadline

#### 1.1.4.1 Delivery schedule

The work should be realised within three (03) months for both lots. The Consultant is required to conduct the study in close consultation with the local council concerned, and purpose to furnish working documents which are as concise as possible. Only the final report will be produced in 20 copies and forwarded in an electronic form.

The delay does not include the time required for approval and for the implementation of the Summary Urban Development Plan (PSU).

TITLE	CONTENT
<b>Phase 1: Inception Report</b> (05 copies)	<ul style="list-style-type: none"> <li>• <b>Proposed Methodology</b> (with possible improvement)</li> <li>• <b>Limitations of the proposed approach</b></li> <li>• <b>Detailed programme</b> of activities to be undertaken (as a draft work plan)</li> <li>• <b>Personnel and job specifications of each staff member</b></li> <li>• <b>Logistics</b> for effecting the proper conduct of the study</li> <li>• <b>Provisional timetable</b> for realising the study and for mobilising of key personnel on the ground, per town and for all towns</li> <li>• <b>Various appendices</b> (survey forms, lists of resource persons to contact, ..., list of documents to use, bibliography, ...)</li> </ul>
<b>Phase 2: Urban Diagnosis of Summary Urban Development Plan (PSU)</b>	
<b>Interim Report Phase 2: diagnostic assessment of the PSU</b> (03 copies) <b>Six (06) weeks after approval of Phase 1 Report.</b>	<b>Production of digital base maps:</b> <ul style="list-style-type: none"> <li>• <b>Complementary thematic surveys</b></li> <li>• <b>Synthesis of diagnosis (diagnostic assessment of the existing situation)</b></li> <li>• <b>Thematic maps A1, A2 or A3 format (1/20.000 to 1/5.000) and synthetic maps of the actual situation (1/20.000 to 1/5.000) or any other scale deemed appropriate by the consultant</b></li> <li>• <b>Elaboration of problem trees</b></li> <li>• <b>Sketch determining strategic orientations</b></li> </ul>
<b>Approval</b>	<b>Approval by the SDO, MINHDU and the Council (01 week)</b>
<b>Final Report Phase 2: diagnostic assessment of the PSU</b> (10 copies) <b>One (01) week after approval of Interim Report</b>	<ul style="list-style-type: none"> <li>• <b>Consideration of all amendments</b></li> <li>• <b>Finalization</b></li> <li>• <b>Production of the final version after agreement of the SDO Menchum Divison, the Divisional Delegate MINHDU and the Wum Council</b></li> </ul>

<b>Phase 3 : Justification Reports of PSU</b>	
<p><b>Interim Report phase 3 : Justification Reports of PSU</b> (03copies) <b>Three (03) weeks after approval of Final Report Phase 2</b></p>	<p><b>1 – Justifying Report:</b></p> <ul style="list-style-type: none"> <li>• General Introduction (recall the context and objectives)</li> <li>• Executive summary (&lt;15 pages)</li> <li>• Synthesis of diagnosis (diagnostic assessment of the existing situation)</li> <li>• Elaboration or confirmation of problem trees</li> <li>• Definition of objectives and strategic orientations</li> <li>• Programming of needs</li> <li>• Proposal of the Summary Urbanization Plan (PSU) in two options</li> </ul> <p><b>2 - Graphic Documents :</b></p> <ul style="list-style-type: none"> <li>•Thematic graphic documents (see methodology above)</li> <li>•Synthesised graphic documents (see methodology above)</li> </ul> <p><b>3 - Adoption of the planning proposal</b></p> <p><b>4 – Detailing of the planning proposal</b></p> <ul style="list-style-type: none"> <li>• <b>Indication of the main phases and evaluation of realisation cost</b> (only the programmes to be implemented over the next five years should be given special attention. Those to be realized beyond will be indicated for the record)</li> <li>• <b>Development of Annexes:</b> <ul style="list-style-type: none"> <li>- greening/ flowering plan, forestation and all green spaces, squares and parks;</li> <li>- general plan for sanitation (storm water and sewage, household waste), supply of drinking water and energy, telecommunication;</li> <li>- environmental protection measures and other systematic protection against natural and human calamities and hazards (fire, floods, earthquakes, air assault, ...), where applicable.</li> </ul> </li> </ul> <p><b>5 - Provisional regulations in Appendix</b></p>
<b>Approval</b>	<b>Approval by SDO/ Divisional Delegate MINHDU / Council (01 week)</b>
<p><b>Final Report of phase 3 of PSU</b> (20 copies/town) <b>One (01) week after approval of Interim Report 3</b></p>	<ul style="list-style-type: none"> <li>• <b>Take into consideration all amendments</b></li> <li>• <b>Finalization of documents</b></li> <li>• <b>Production of final document after agreement of SDO Menchum, Divisional Delegate of MINHDU and the Wum Council</b></li> </ul>

**1.1.4.2 Production of a layout, subdivided into plots (5 to 7 hectares maximum)**

Draft:

- A report containing all data and justification of the proposals, the definition of project beneficiaries;
- The draft proposals (two or three) giving spatial organization and location of equipment;
- The layout plan, with subdivisions into plots;
- A road and street plan with different profiles;
- The town planning regulations (outline).
- The documents of the draft will be delivered in three (3) copies.

Final Draft:

It will consist of:

- The report including information justifying the proposals;
- The layout plan;
- Subdivision into plots;
- Plan of roads and infrastructure (water, electricity, telephone);
- The development of open spaces and green spaces;
- The program of work and assessment in the year of the study;
- Regulations;

- Presentation of the report.

The final draft will be submitted in ten (10) copies.

The Consultant will provide a monthly Progress Report of the work to the Control Engineer.

The Consultant also undertakes to be available to the Administration and to assist it in the company of various technicians who participated in the studies, first in Yaoundé and in each locality.

It is anticipated that two (02) briefing and consultation meetings will be held, one in the investigation stage to clarify the objectives of the study and seek wider collaboration, and the other at the end of the survey to publicly discuss the problems of the town. In addition, a one-day seminar will take place at the expense of the Consultant, in every town at the decision making stage.

The Consultant will be the facilitator of these meetings.

Any modifications or additions that may be requested by the Administration will not be paid until the plan is approved by decree.

The Consultant may be required during the study period, on request of the Administration, to provide its opinion on any proposed construction or development projects in the study area.

#### **1.1.5 Service Provider Profile: Key Personnel**

To carry out this study, the provider must propose a:

- **Chief of Mission (Urban Planner / Architect-Planner / Urban Networks Engineer)** providing proven expertise and relevant references in urban planning. The Head of Mission must have a master's degree ('A' level+5 years), have at least 7 years experience in the field of urban planning and have participated in at least 03 similar studies and be enrolled in the National Order of Cameroon Town Planners (ONUC).

Each team must include, besides the Head of Mission, the following experts:

- **Demographer-Sociologist**, ('A' level+5) he/she must provide proof of:
  - Professional experience of at least 10 years in this field of study or in urban development;
  - Have completed at least two (02) projects of the same nature, and be familiar with the urban context of Cameroon.
- **Traffic or Networks Engineer** ('A' level +5), Enrolled in the National Order of Engineers, he/she must meet the following conditions:
  - Experience of a minimum of five (05) years in the design and maintenance of urban infrastructure;
  - Have already participated in at least two (02) similar projects, and be familiar with the Council environment in Cameroon and with issues pertaining to the urban environment.
- A specialist in institutional and financial analysis: **Economist (expert in housing problems)** Holds a post-graduate diploma ('A' level +5), in the field of economics, financial analysis, taxation, law, management, ... and possess solid professional experience of at least 10 years in one of these fields or in the field of urban management and local urban development and have carried out at least 02 studies in the field of financial audits, housing or local funding. Knowledge of the context of Councils in Cameroon and justification of experience in these areas on a national or international level will be greatly appreciated.
- **A Specialist in Cartography:** He holds at least a university diploma ('A' level+2) in the fields of topography and justifying solid professional experience of at least 5 years in the field of cartography and have performed at least 02 studies in the field of digital mapping. Knowledge

of the use of common mapping software and justification of experience in these areas on a national or international level will be greatly appreciated.

## **1.2 Recall of the Methodology Presented by the Bidder**

### **1.2.1 Observations on the Terms of Reference**

Tender File No. 009/ONIT/MDTB/WUM/SDO/2012 of 26/072012 for the Elaboration of Summary Urbanisation Plans (PSU) for Wum Town is the basis of the following observations.

- 1) Law No. 2004/003 of 21/04/2004 regulates town planning in Cameroon.
- 2) Decree No. 2008/0736/PM of 23/04/2008 lays down the implementation instrument governing the preparation and amendment of urban planning documents.

As a Consultant invited for the realization of this project, we have the following observations, which need to be responded to in order that a worthy PSU is achieved for Wum Town.

#### **A. Delimitation of the Urban Area**

- We hope that the town has been delimited using the appropriate coordinate system WGS 84 the projection used for the mapping of the territory of Cameroon. If not, it constitutes constraints prior to the commencement of the PSU studies proper. Hence, some time would be wasted in getting the information relating to the actual limits of the town.
- At the level of the PSU, as a planning document, its approval ends at the divisional level. The competent approval authority is the Municipal Council, whose deliberations for the Municipal Order for the purpose are based on the recommendations of the local town planning services (see section 26 of Law No. 2004/003 of 21/04/2004 and article 28 of Decree No. 2008/0736/PM of 23/04/2008 attached).
- The Tender talks of approval by decree (page 59 of TENDER). A PSU is not approved by decree but by a Municipal Order (Law No. 2004/003 of 21/04/2004, section 46(2)).
- In the spirit of decentralisation, the role of the DSPC (Department of Studies, Planning and Cooperation) in the approval of an SUP does not seem necessary since the contract engineer is supposed to have safeguarded the interest of DSPC. (See 4. Completion Deadline in Tender File, pages 57 and 58).
- However, the role and purpose of the seminar in the Completion Deadline (Tender, page 59) is unclear.

#### **B. Expected Results**

- Expected Results (page 55 (e) and (f) of Tender File) mentions a layout on land 5 – 7 hectares in area. While it is unclear whether it is a State or Council layout, establishing a layout in the context of this PSU without the necessary time and resources duly considered, renders it out of place. The results expected require a street plan and networks with different profiles. To prepare profiles of this nature, it requires contoured site plans of a certain accuracy.
- Layout studies for Wum should be the subject of a separate study for it takes time and additional resources to get this done.

#### **C. Validation of the PSU documents**

- The time taken up by the two workshops (one for validating the diagnosis and the other for approving the proposals), the solemn Council session to present the plan to the Council, its partners and stakeholders, the time for administering questionnaires, all add up to much time and should have been considered in establishing the duration of the project.

#### **D. Written and submitted observations**

- The above observations were submitted in written form within the time stipulated in accordance with Article (2) of the of the PSU WUM tender document reference N°009/ONIT/MDTB/WUM/SDO/2012. A meeting with the Delegates of MINH DU and MINEPAT took place in Wum on the 17/08/2012 to discuss the above mentioned points and admendments to point (C) were agreed upon.
- The preparation of a detailed layout of 5-7 hectares was consequently dropped.
- The situation of the layout was to be appropriately shown on the PSU WUM final reports.
- Hence, correspondences were expected to be written to all the invited Bidders with an addendum before the date of submission of the tender. This has not been the case. Hence these technical proposals have taken into account the issues raised and agreed upon in WUM on the 17/08/2012

#### **1.2.2 Understanding of Terms of Reference by the Bidder**

##### **1.2.2.1 The Problem**

Generally, the resources available for planning, development and urban management are inadequate. Specifically, human, material and financial resources available for urban planning urban development and management are inadequate or non-existent.

Processes and procedures of decision making related to urban planning, to development, to construction or to management are not very clear. Furthermore, the roles and responsibilities of the State, the council, the civil society and the private sector are not clearly defined, resulting in duplication and conflicts of jurisdiction despite the existence of regulations.

Most urban areas do not have consistent data and information that may allow an understanding of problems and urban needs. Thus, decisions related to urban planning and urban development are usually not based on facts and concrete, felt needs. These are some reasons why management and urban development are neither sustainable nor viable.

##### **1.2.2.2 Focal principles of organisation of the study for the PSU**

Our main axes for organising the study for the PSU of Wum town:

- the main actors visualise and understand the borders of the town;
- contribute to the improvement of understanding of the real issues of concern to the various actors in view of preparing the urban development plan;
- analyse the state of natural sites of the town;
- analyse the morphological, demographic and population dynamics of the town;
- analyse the state of social infrastructure and access to basic social services;
- analyse the state and functioning of roads and other networks as well as access to basic utilities;
- analyse the state and the functioning of public and collective facilities;
- analyse the structure and functioning of the economy of the town;
- analyse the state of the environment;
- allow actors to actively participate and contribute to the preparation of development programmes;
- educate, prepare and mobilise the key actors to a possible implementation of development programmes.

##### **1.2.2.3 Expected Results**

- The main actors visualise and understand the borders of the town;
- The key actors understand exactly the characteristics, potential, the natural resource base and environmental conditions of the town;
- The key actors fully understand the condition and operation of existing economic equipment;
- The main actors fully understand the state and problems of public facilities and infrastructure networks;

- The state and the problems associated with the functioning of public utility networks and infrastructures themselves.

#### **1.2.2.4 Relevance of Study**

The studies will:

- 1) Assist development organisations wishing to implement development projects in the town;
- 2) Help researchers seeking information on the socio-economic and other factors of the town;
- 3) Help decision makers and the people: to whom the information will serve as the basis of comparison and of projections;
- 4) Promote cooperation between communities, public and private institutions in order to invest in the production activities in the town and create jobs, thanks to access to spatial databases.

Table below, conceived from our previous experiences, clearly presents sectors and subsectors to take into account during the study.

Table: Main activities, the objectives and the expected results

Main activities	Specific activities	Specific Objectives	Expected results
<b>Phase 1: Inception report</b>			
Inception report	<ul style="list-style-type: none"> <li>- Definition of study area</li> <li>- Methodology with improvements</li> <li>- Limitations of the proposed methodology</li> <li>- Detailed programme</li> <li>- Personnel and job descriptions for each of them</li> <li>- Logistics</li> <li>- Calendar</li> <li>- Various annexes</li> </ul>	Methodology proposed with improvements	- Inception report
<b>Phase 2: Diagnosis</b>			
Consultation and working session	<ul style="list-style-type: none"> <li>- Consultation and working session of key stakeholders</li> <li>- Discussions</li> <li>- Collection of data and available documents</li> </ul>	<ul style="list-style-type: none"> <li>- Explain the objectives</li> <li>- Gather the expectations of stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>- Participants are sensitised and ready to collaborate</li> <li>- Expectations of stakeholders are known</li> <li>- Prejudices minimised</li> </ul>
Reconnaissance visit	<ul style="list-style-type: none"> <li>- Get in contact with municipal authorities</li> <li>- Taking of notes</li> </ul>	<ul style="list-style-type: none"> <li>- have a global view of the study area</li> </ul>	<ul style="list-style-type: none"> <li>- Notes taken</li> <li>- Pictures taken</li> </ul>
Sensitisation/mobilisation	<ul style="list-style-type: none"> <li>a) Convene a one day meeting of key stakeholders</li> <li>b) Explain the concept of PSU and expected results</li> <li>c) Discussions</li> <li>d) Collection of data and available documents</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the objectives of the PSU</li> <li>• Gather the expectations of stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>- Participants are sensitised and ready to collaborate</li> <li>- Expectations of stakeholders are known – prejudices minimised</li> </ul>
Collection/evaluation and analysis of existing data and documents	<ul style="list-style-type: none"> <li>a) Classify data and documents</li> <li>b) Exploit documents following pre-defined criteria</li> </ul>	Determine the quality and usefulness of data and documents available	<ul style="list-style-type: none"> <li>- Useful data and qualitative information collected</li> <li>- Complementary data and information needs determined</li> </ul>
<b><u>Elaboration of basic maps</u></b>			



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Preparation of basic maps of the town	<ul style="list-style-type: none"> <li>– Codification of GIS data</li> <li>– Integration of GIS data</li> </ul>	Provide a basis for field surveys and eventual data analysis	<ul style="list-style-type: none"> <li>– Accurate base maps and updates available</li> </ul>
Integration of observations in the report	<ul style="list-style-type: none"> <li>– Review of reports</li> </ul>	- Consideration of stakeholder observations	<ul style="list-style-type: none"> <li>– Corrected report</li> </ul>
<b><u>Field surveys</u></b>			–
(a) GPS/GIS field survey (b) Complementary thematic surveys	<ul style="list-style-type: none"> <li>– Collection of data (GPS)</li> <li>– Observations on the field and documentation</li> <li>– Collection of complementary data</li> </ul>	<ul style="list-style-type: none"> <li>– Collect data and additional information</li> <li>– Facilitate the restitution of GIS database and base maps</li> </ul>	<ul style="list-style-type: none"> <li>– Relevant and appropriate data and information obtained</li> </ul>
(c) Investigation of major problem areas	<ul style="list-style-type: none"> <li>a) Contact local actors</li> <li>b) Semi-structured interviews</li> <li>c) Administer the questionnaires</li> <li>d) Field observations and documentation</li> </ul>	<p>Collect data and additional information</p> <p>Work with local stakeholders to have local realities</p>	<ul style="list-style-type: none"> <li>– The consultants master the local realities</li> <li>– Local actors and stakeholders take ownership of the project</li> <li>– Relevant and appropriate data and information obtained</li> </ul>
<b><u>Analysis</u></b>			
Analysis of the natural site	<ul style="list-style-type: none"> <li>– Relief and topography,</li> <li>– Hydrology,</li> <li>– Vegetation,</li> <li>– Climate,</li> <li>– Geology,</li> <li>– Pedology.</li> </ul>	<ul style="list-style-type: none"> <li>– Establish a relationship between relief and land use to define orientation axes of priority urbanisation</li> <li>– Identify hazardous areas due to slope,</li> <li>– Identify areas prone to mass movements,</li> <li>– Characterize streams (nature of the flow, source, nature and shape of the valleys, flow characteristics)</li> <li>– Identify flood zones;</li> <li>– Characterize the original vegetation of the natural site of the town;</li> </ul>	<ul style="list-style-type: none"> <li>– Key stakeholders understand exactly the characteristics, potential, the natural resource base and environmental conditions of each urban area,</li> <li>– Maps and data on the topographical location of the town</li> <li>– Mapped risk zones (vulnerable to mass movements).</li> <li>– Location of building areas</li> <li>– Location of areas suitable for agriculture within urban and peri-urban areas</li> <li>– Maps and data on hydrography of the town;</li> <li>– Map of flood zones</li> </ul>
Analysis of man-made site	<ul style="list-style-type: none"> <li>a) Socio-economic surveys</li> <li>b) Sector surveys with competent authorities</li> <li>c) Built-up area</li> <li>d) Access to basic urban social services,</li> </ul>	<ul style="list-style-type: none"> <li>– Gather relevant information from the actors of civil society involved in urban development</li> <li>– Collect information relating to the actions of divisional or sub-divisional delegations in the town;</li> <li>– Assess the level of exploitation of all natural resources;</li> <li>– Evaluate the organisation and use of space,</li> </ul>	<ul style="list-style-type: none"> <li>– Receptions of survey forms completed by individuals and services surveyed,</li> <li>– Analysis of survey results, and exploitation in the development options</li> </ul>



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	<p>e) Environment and urban landscape f) Economic activities g) Industrial zones</p>	<ul style="list-style-type: none"> <li>- Enable key actors to understand the level, the constraints and difficulties in accessing social services available</li> <li>- Making the diagnosis of the main obstacles to access social services available</li> <li>- Determine trends and types of needs for urban basic social services</li> <li>- Enable key stakeholders to understand and to own the state of the environment and the urban landscape</li> <li>- Evaluate the organisation and use of space</li> <li>- Conduct an analysis of spatial differentiation of built-up area.</li> </ul>	<ul style="list-style-type: none"> <li>- Key actors fully understand the situation and key issues</li> <li>- The situation and the main problems are properly documented</li> <li>- Key actors fully understand the main problems and potential of built-up area</li> <li>- Key actors need to understand the nature of the land, built-up area and the level and directions of growth of the town</li> <li>- Problems and main causes identified</li> <li>- The situation and problems of the environment and the urban landscape properly documented</li> </ul>
Administration, Demography and urban social development	<p>a) Delineation of urban area b) Administration, c) Demography and urban social development, d) Sociology</p>	<ul style="list-style-type: none"> <li>- Isolate the urban area from the rural,</li> <li>- Establish the basis for a possible official demarcation of urban areas.</li> <li>- Divide the urban area into specific study zones or districts.</li> </ul>	<ul style="list-style-type: none"> <li>- The main actors visualize and understand the borders of the urban area</li> </ul>
Economy	<p>a) Overview (including income-generating structures) b) Primary sector c) Secondary Sector, d) Service sector, e) Informal Sector, f) Situation and functioning of the urban economy.</p>	<ul style="list-style-type: none"> <li>- Enable key stakeholders to understand and appreciate the structure and functioning of the urban economy;</li> <li>- Provide a basis for restructuring and improving the functioning of the urban economy;</li> <li>- Identify key actors of the urban economy</li> <li>- Enable key actors to understand the level, status and functioning of urban economic activities.</li> <li>- Identify key issues related to the development of urban economic infrastructure,</li> <li>- Enable the planning and improvement of urban economic infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>- Key actors fully understand the structure and functioning of the urban economy,</li> <li>- An report on the urban economy.</li> <li>- Key actors fully understand the condition and functioning of existing economic equipment</li> <li>- Reports.</li> </ul>
Collective services	<p>1) Public services 2) Educational equipment 3) Public health services 4) Municipal cemetery 5) Urban markets 6) Abattoir</p>	<ul style="list-style-type: none"> <li>- Enable key stakeholders to understand and appreciate the problems related to collective services in the town.</li> <li>- Provide a basis for improving management of existing urban utilities.</li> <li>- Provide a basis for the planning of the future.</li> <li>- Enable key stakeholders to understand and assess the</li> </ul>	<ul style="list-style-type: none"> <li>- Key actors fully understand the status, functioning and problems of collective services</li> <li>- The state and problems related to collective services properly documented.</li> </ul>

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	<ul style="list-style-type: none"> <li>7) Urban parking equipment</li> <li>8) Sports and leisure equipment</li> <li>9) Public library</li> <li>10) Creativity centres</li> <li>11) Public toilets etc.</li> </ul>	<p>condition and functioning of existing utilities.</p>	<ul style="list-style-type: none"> <li>– Key actors fully understand the problems associated with collective services.</li> <li>– Illustrated reports</li> </ul>
Transport and various network infrastructure	<ul style="list-style-type: none"> <li>1) Roads</li> <li>2) Urban and interurban transport</li> <li>3) Drainage</li> <li>4) Drinking water networks and infrastructure</li> <li>5) Energy supply</li> <li>6) Sanitation system</li> </ul>	<ul style="list-style-type: none"> <li>– Enable key stakeholders to understand and appreciate the problems related to transportation and traffic in the town.</li> <li>– Provide a basis that will enable improvement in the management of existing urban transport infrastructure.</li> <li>– Provide a basis for the planning of future transport infrastructure</li> <li>– Enable key stakeholders to understand and assess the condition and functioning of existing public facilities and infrastructure networks.</li> <li>– Provide a basis for improving existing networks and infrastructure.</li> <li>– Provide a basis for the planning of future networks and infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>– Key actors fully understand the status, operation and problems with public facilities and urban infrastructure networks.</li> <li>– The state and problems associated with networks of public facilities and urban infrastructure properly documented.</li> <li>– Key actors fully understand the transportation issues and those associated to urban traffic.</li> <li>– Illustrated reports.</li> </ul>
Local finance	<ul style="list-style-type: none"> <li>– Expenditure and the level of service rendered to the population</li> <li>– Resources</li> <li>– Financial situation</li> <li>– The cash flow</li> <li>– Investment efforts</li> </ul>	<ul style="list-style-type: none"> <li>– Enable key actors understand trends, types, management and finance issues of the local council</li> <li>– Provide a basis for increased revenue of the local council and improvement of financial resource management of the council</li> </ul>	<ul style="list-style-type: none"> <li>– Key actors fully understand the trends, types, processes, procedures and problems of financial management of the council</li> <li>– Trends, types, processes, procedures and issues of council finances,</li> </ul>
Council organisation	<ul style="list-style-type: none"> <li>– Functioning of the council</li> <li>– Functioning of services</li> <li>– Absorption capacity of the powers transferred to councils</li> <li>– Intervention capacity of technical Services</li> </ul>	<ul style="list-style-type: none"> <li>– Enable key stakeholders to understand and appreciate the problems related to the council organisation</li> <li>– Enable key stakeholders to assess the potential and the importance of setting up a partnership at the level of council</li> <li>– Create council unions to improve municipal organisation</li> </ul>	<ul style="list-style-type: none"> <li>– Key actors fully understand the issues, processes and procedures of council organisation.</li> <li>– Problems, processes and procedures of the municipal organisation itself.</li> </ul>
Local partnership and urban governance	<ul style="list-style-type: none"> <li>– The degree of involvement of civil society</li> <li>– Management mode of commercial facilities</li> <li>– Eventual institutional support</li> <li>– Domains analysis</li> </ul>	<ul style="list-style-type: none"> <li>– Enable key stakeholders to understand and appreciate the problems related to governance in the municipality.</li> <li>– enable key stakeholders to assess the potential and the importance of setting up a partnership at the level of the council</li> <li>– Create council unions to improve the local governance and partnership</li> </ul>	<ul style="list-style-type: none"> <li>– Key actors fully understand the issues, processes and procedures of local governance and partnership.</li> <li>– Problems, processes and procedures of local governance and partnership.</li> </ul>
Identification and analysis of problems	<ul style="list-style-type: none"> <li>– Prepare problem trees by sector</li> </ul>	<ul style="list-style-type: none"> <li>– Identify central problems</li> <li>– Identify causes of central problems</li> </ul>	<ul style="list-style-type: none"> <li>– Problem trees</li> </ul>

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Strategic orientation	<ul style="list-style-type: none"> <li>- Refine problem trees</li> <li>- Refine the goals</li> <li>- Formulate specific objectives</li> </ul>	<ul style="list-style-type: none"> <li>- Define the strategic indicators by sector</li> </ul>	<ul style="list-style-type: none"> <li>- Strategic orientation clearly defined</li> </ul>
Workshop for validation of the Diagnosis	<ul style="list-style-type: none"> <li>- Organisation of a one-day workshop</li> <li>- Present reports</li> <li>- Discussions</li> </ul>	<ul style="list-style-type: none"> <li>- Restitution/validation of diagnosis</li> <li>- Consideration of all amendments</li> <li>- Finalisation</li> </ul>	<ul style="list-style-type: none"> <li>- The different stakeholders and local urban development partners understand the situation</li> <li>- Obtain input from stakeholders</li> <li>- Validated report</li> </ul>
Integration of observations in the report	<ul style="list-style-type: none"> <li>- Revision of the reports</li> </ul>	<ul style="list-style-type: none"> <li>- Consideration of stakeholders' observations</li> </ul>	<ul style="list-style-type: none"> <li>- Corrected report</li> </ul>
Submission of provisional report phase 2 for approval	<ul style="list-style-type: none"> <li>- Collect observations from Council – DD-MINHDU</li> </ul>	<ul style="list-style-type: none"> <li>- Approval by Council – DD-MINHDU</li> </ul>	<ul style="list-style-type: none"> <li>- Written observations available1</li> </ul>
<b>Phase 3: Justifying report of the PSU</b>			
<b><u>Elaboration of Urban Development Plans</u></b>			
Summary of main results of phase 2 - Diagnosis	<ul style="list-style-type: none"> <li>- Housing</li> <li>- Urban collective services</li> <li>- Urban transport</li> <li>- Demography and urban social development</li> <li>- Human resources of urban sector, etc.....</li> </ul>	RS	RS
Confirmation of problem trees	<ul style="list-style-type: none"> <li>- Confirmation of problem trees</li> </ul>	<ul style="list-style-type: none"> <li>- Identify central problems</li> <li>- Identify the causes of central problems</li> </ul>	<ul style="list-style-type: none"> <li>- Problem trees drawn up</li> </ul>
Strategic orientations	<ul style="list-style-type: none"> <li>- Refine problem trees</li> <li>- Refine the goals</li> <li>- Formulate specific objectives</li> </ul>	<ul style="list-style-type: none"> <li>- Define the strategic indications by sector</li> </ul>	<ul style="list-style-type: none"> <li>- Strategic orientations clearly defined</li> </ul>
<b><u>Definition of urban development planning principles</u></b>			
Elaboration of two alternative PSU scenarios		<ul style="list-style-type: none"> <li>- Make clear to stakeholders that there is rarely a perfect solution to a given organisation problem</li> </ul>	<ul style="list-style-type: none"> <li>- Adoption of a development scenario</li> </ul>
a) Proposition of a development plan	<ul style="list-style-type: none"> <li>- Development of a planning grid</li> <li>- Elaboration of planning principles</li> <li>- Development of a detailed action plan</li> <li>- Elaborate development plans</li> </ul>	<ul style="list-style-type: none"> <li>- Make planning guidelines and principles available</li> <li>- Provide basis for taking action</li> <li>- Make development plans available</li> <li>- Make structure plans available</li> <li>- Programme development activities</li> <li>- Assure effective realization of the development projects/programmes</li> <li>- Provide logical and effective framework for decision</li> </ul>	<ul style="list-style-type: none"> <li>- Planning principles and guidelines prepared</li> <li>- Action plan prepared</li> <li>- Development plan prepared</li> <li>- Structure plan prepared</li> <li>- Development activities programmed</li> <li>- Implementation strategies prepared</li> <li>- Logical framework for decision</li> </ul>

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		<ul style="list-style-type: none"> <li>– making for implementation</li> <li>– Assure effective and efficient framework for urban development</li> <li>– Provide documents for soliciting for project funding</li> </ul>	<ul style="list-style-type: none"> <li>– making provided</li> <li>– Institutional framework for urban development prepared</li> <li>– Planning documents (maps/plans and reports) for projects prepared</li> </ul>
b) Programming of needs	<ul style="list-style-type: none"> <li>– Development of urban structure plans</li> <li>– Preparation of an urban development programme</li> <li>– Definition of operational strategies for implementation</li> <li>– Definition of operational procedures of decision making</li> <li>– Definition of institutional urban planning</li> <li>– Preparation of provisional project plans and reports</li> </ul>	<ul style="list-style-type: none"> <li>– Organize functional groupings of land use</li> <li>– Establish land development potentials</li> <li>– Establish sustainable environmental balance</li> <li>– Prevent environmental destruction</li> <li>– Provide equitable system for locating public activities and services</li> <li>– Provide structure for circulation and network provision</li> <li>– Establish existing land use</li> <li>– Establish urban growth and expansion</li> <li>– Establish long term urban area</li> </ul>	<ul style="list-style-type: none"> <li>– Existing land uses established</li> <li>– Extension zones delimited/identified</li> <li>– Open spaces identified /delimited</li> <li>– Natural sites protected</li> <li>– Proposed land uses allocated</li> <li>– Principal activities, public utilities and services located</li> <li>– Functional structure for transport, circulation and networks established</li> <li>– Short and medium term development maps produced</li> <li>– Long term development map produced</li> </ul>
<b>Graphic thematic documents</b>	<ul style="list-style-type: none"> <li>– General destination of soils</li> <li>– Extension areas</li> <li>– Main open spaces or woodlands to be maintained or created,</li> <li>– Natural sites to protect</li> <li>– Location of main activities and public facilities</li> <li>– General organisation of traffic, transport and roads</li> <li>– Land Use Plan</li> <li>– Short and medium term cartography (less than 5 years)</li> </ul>	<ul style="list-style-type: none"> <li>– Prepare thematic maps of proposals per section to illustrate the existing and proposed land use.</li> </ul>	<ul style="list-style-type: none"> <li>– Thematic maps of services, road networks, water supply, drainage, protected areas, etc, will be produced.</li> </ul>
<b>Elaboration of annexes</b>	<ul style="list-style-type: none"> <li>– The scope of that regulation,</li> <li>– The spatial distribution of the development plan</li> <li>– The terms of use or land occupation</li> </ul>	<p>The regulation shall focus on rights-of-way of infrastructure and community facilities</p>	<ul style="list-style-type: none"> <li>– Landscaping or greening/flowering plan of all green spaces, squares and parks available</li> <li>– Available general sanitation plan (storm water and sewage, household waste), water supply and energy, telecommunications</li> <li>– Available measures of environmental protection and prevention of risks</li> </ul>

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			from natural phenomena and human
<p><b><u>Workshop validation:</u></b>                      1) Provisional report phase 3                      2) Justifying report of PSU</p>	<ul style="list-style-type: none"> <li>- Organise a two-day workshop</li> <li>- Present reports</li> <li>- Discussions</li> </ul>	<ul style="list-style-type: none"> <li>- Restitution / validation of justifying report</li> <li>- Consideration of any amendments</li> <li>- Finalisation</li> </ul>	<ul style="list-style-type: none"> <li>- The different stakeholders and partners in local urban development understand eventual proposals</li> <li>- Obtain observations from stakeholders</li> <li>- Validated report</li> </ul>
<p><b><u>Submission of reports for approval</u></b>                      1) Provisional report phase 3                      2) Justifying report of PSU</p>	<ul style="list-style-type: none"> <li>- Collect observations from Council – DD-MINH DU</li> </ul>	<p>Approval by Council – DD-MINH DU</p>	<ul style="list-style-type: none"> <li>- Written observations available</li> </ul>
<p>Finalisation of documents</p>	<ul style="list-style-type: none"> <li>- Collect observations</li> </ul>	<ul style="list-style-type: none"> <li>- Written/graphic final reports available</li> </ul>	<ul style="list-style-type: none"> <li>- Written/graphic final reports available</li> </ul>

### 1.2.3 The procedure and process

- Reconnaissance visit
- Sensitisation and mobilisation of actors (workshop):
  - The interface with key stakeholders,
  - The delimitation of urban space
- Collection and analysis of existing textual documentation
- Knowledge of current situation
  - GIS / GPS survey
  - Survey of major problem sectors
- Analysis of field survey results
  - Analysis of detailed textual documentation
  - Processing of cartographic data
- Elaboration of problem trees and definition of strategic orientations
- Workshop Validation:
  - Diagnosis
- Elaboration of Urban Development Plans
- Elaboration of sectors plans
- Preparation of documents annexed to PSU
- Validation workshop:
  - Provisional report phase 3
- Review the final report.

### PHASE 1: INCEPTION REPORT

#### ✓ Inception report

The points below will be part of the inception report:

- 1) Methodology proposed
- 2) Limitations of proposed approach
- 3) Detailed programme of activities
- 4) Personnel and job specification for each
- 5) Logistics
- 6) Provisional timetable for realisation of the study
- 7) Various annexes

### PHASE 2: DIAGNOSIS

#### ✓ Preparatory Meetings

For best results, a preparatory meeting with the SDO Menchum, the Divisional Delegate of MINH DU in Menchum and the Mayor of Wum Council is essential.

During this meeting, presentations will be made to explain the importance of procedures and standard formats of GIS database that will form the backbone of data collection.

#### ✓ Consultation and working meeting

A variety of actors and stakeholders will be mobilized to participate actively in the study. These actors will involve:

##### A) The decentralised state services concerned

Their role will be to support the process, provide reports and secondary data including their opinions and perspectives on the development of Wum town.

##### B) The NGOs and organisations of civil society

Those of them who work in town will also speak of development issues. Thanks to the groundwork they do in the town, they will provide data to be used in the comparison and allow the consultant to triangulate information collected.

**C) The Council**

The council is the main actor and owner of the Project. It will provide all municipal data and take an active part in the whole process.

**D) The Communities**

Communities will be contacted and consulted to obtain their views on the status and functioning of the town, or on governance as practised in their localities. They will be mobilized for action, but also to support the process for a better understanding of the purpose of the study.

**E) Traders / private sector**

They must provide the information and opinions of a non-government point of view and share their views on growth and barriers to growth in their town.

**F) The elected**

The elected will have to know, understand and better represent the aspirations of the people on political issues.

✓ **Reconnaissance visit**

Before the actual start of the planning process of the PSU, the CAMGIS team of experts will proceed to a reconnaissance visit of the place. Reconnaissance will be for:

1. Recognition of the limits of the study area,
2. Identification of the sources of information and collection of existing documentation,
3. Identification of the major functions, major infrastructure and equipment of the town,
4. Preparation of the basis of necessary surveys.

✓ **Delimitation of study area**

The following activities will be carried out to delimit the study area:

1. Preliminary visit to the site to do GPS tracking of the study area.
2. It will be made during the field visit and the contact to local administration and the Divisional Delegation of MINH DU in Wum.
3. The GPS will be used for geographic positions of localities and points of interest, which must be shown on the map.

✓ **Data collection**

Since the acquisition of satellite images is not a requisite part of this project, data collection will depend mainly on textual information and data obtained from field surveys.

**1) Delimitation of study area**

It is absolutely necessary to delineate the study area. In the course of delimitation, GPS will be used to allow for the projected growth of the town in the near future.

The joint meeting with the administrative and local authority services of the town will allow the consultant to understand the nomenclature of the town, including:

- The limits of the study area,
- The exact names of quarters and their boundaries,
- The names of streets, etc ...

This is important since during the elaboration of the PSU, it will be necessary to use the neighbourhood as its smallest unit. Successful meetings will allow operators of GPS in the field to make a correct spatial classification of GPS/GIS data based on their respective blocks.

From the GPS/GIS data collected, the following thematic elements will be established:

- a) The natural physical environment (topography, drainage, vegetation, etc....);
- b) Industry;
- c) Housing;
- d) The basic utilities:
  - Roads and transportation (roads),
  - Post and telecommunications,
  - Water (capture, storage, distribution),
  - Energy (electricity, oil, gas),
  - Commercial equipment (warehouses, markets, slaughterhouses);
- e) Community services:
  - Administration,
  - Commerce and banking,
  - Health,
  - Educational equipment,
  - Culture and sports,
  - Worship,
  - Tourism, reception, hotels, restaurants, etc.

## 2) Collection and analysis of existing documentation

An analysis of all data and text information available would facilitate the understanding of the current situation; hence, it is absolutely necessary to collect and analyse available data.

Planning reports, administrative documents on available services, economy and finance, reports of service providers and other academic productions on specific topics, will be consulted and analysed. It should be noted that data and information collected through field observations and administration of questionnaires will complement the information derived from documents considered as not up to date.

### ✓ The field survey

This is an important step in collecting data and information. Data and information collected in the available documents are completed and updated with the field observations. The tools of modern scientific research such as GPS will be used to identify and locate key physical and human elements for eventual analysis. The process of field observation not only allows a visual assessment, but also the consultant to take notes that will be used to write the report.

During the field observation, we will use the digital camera to film key elements that illustrate some conclusions.

#### ○ GPS/GIS field surveys

Field work is performed by operators with GIS software installed on a computer. This laptop is connected to a GPS to allow capture or control of the location in real time and display it on the base map loaded on the device. This work helps clarify or add new objects identified by the field survey.

#### A) Processing of GPS data

The processing of GPS data collected in the field should begin one or two days after the fieldwork starts. This is to avoid errors due either to poor coverage or wrong configuration of the GPS. This avoids the trouble of returning to the field for corrections, if the technician brings inaccurate data from the field. Different analytical procedures will be used to identify, code and transform information. The current situation will be presented.



## **B) Verification of data**

Mobile GPS teams check the data collected with GPS by viewing with GIS software. During this exercise, they check that the data were downloaded and converted correctly. Every night, data collected by mobile GPS/GIS teams are verified to be eventually completed.

## **C) Data Integration**

The major advantage is that integration with all the information prepared for automation is subject to a second check, to update and to improvement. Methodically applying the standard principles, each element and variable data is systematically scrutinised throughout the study area. The differences between data from multiple sources to different levels are often detected and corrected. The process continues until all compilation sheets of thematic maps are integrated and new attributes created.

## **D) Management of data quality**

Management of quality in a GIS Project involves all actions aimed to solve the problems of design, processing and presentation in the creation and management of a database. This is to ensure that the data in their final forms in the database will not suffer any distortion and they contain accurate information in all its desired characteristics. It is also to ensure that the database is structured to allow maximum efficiency in data processing. It is also about ensuring that the processed data are stored in appropriate files.

### **o Investigation of major problems**

For data collection that will enable an understanding of the actual situation, the Consultant intends to undertake four types of field investigations:

1. Survey of administrative services;
2. Survey of land use;
3. Survey of socio-economic activities;
4. Survey of the urban environment.

The **survey** of administrative services will include: existing facilities or those whose creation is envisaged, the request, their coverage, conditions of service, equipment and materials, and personnel. A descriptive form will be developed for each equipment, and its coordinates will be identified with GPS. The forms will be grouped by sector and confronted with the views of local representatives of the administrative service concerned.

The survey of land use will aim at identifying the major urban functions. Walking through the main areas identified on the base map, the Consultant will proceed with the GPS reading of characteristic zones and then deduce the surface area. Each zone is described according to dominant functions: housing, services (education, health, transport...), commerce...

The determination of characteristic areas of town will pave the way for **socio-economic surveys**. These will be performed on a sample of selected households. The questionnaire will be designed to determine the characteristic profile of the inhabitants of each area, housing status, housing quality, perceived needs of the town.

The survey of activities will identify major employers, industry sector, activity sectors, and volume of activities in order to identify prospects. To this end, consultation of available administrative information from various services will help to determine the level of activity in the town. In addition to the survey of land use, the main activities will be located on maps. It is absolutely necessary to understand, document and analyse the organisation and functioning of communities in the town as follows: -

### 1) Land tenure modes

Current and future land use modes in the town depend on flexibility of modes and transfer of land ownership. It is imperative that land ownership patterns are clearly documented.

### 2) Survey of public and community facilities

Public and community facilities are part of the land use in the urban area. Modes of provision and the state of public and community facilities also influence the management of the land use.

### 3) Survey of roads and various networks

Modes and intensity of land use depend significantly on the mode and state of transportation network and public facilities. This requires the survey on modes and actual state of various networks and infrastructure in the town.

#### a) Transportation Networks

- Types
- State of network

#### b) Provision of water

- Sources
- Tanks
- Stand taps

#### c) Supply of electricity

- High voltage
- Transformers
- Quarters connected
- Quarters not connected

#### a) Communication

- Mobile phone installations and networks
- Fixed telephone installations

#### b) Drainage

#### c) Waste water system

#### d) Urban agriculture:

- Involvement of Wum population in urban agriculture;
- Activities and characteristics of urban agriculture;
- Effects of agriculture;
- Problems of agriculture.

### 5) Survey of environmentally sensitive areas

Initial analysis of the natural site and land use modes shall indicate sensitive environmental areas that should be protected, conserved and restored. A detailed survey of areas that are environmentally fragile and risky is also necessary to enable the generation of appropriate management strategies. This survey shall include: -

- Identification and delimitation of environmentally fragile/risky zones;
- Survey of characteristics of the zones;
- The systems and land use types and their environmental impacts;
- Initial state of the environment: an inventory of environmentally fragile/risky zones;
- Management of environmentally fragile/risky zones: landscape, earthworks, planting trees, etc.

The counting of the survey forms will be made using appropriate software (SPSS).

○ **Analysis of field survey results**

The collection of field data will be complemented by a comprehensive literature review which will place the town in its immediate environment, identify potentials that are available to it, and define the strategic orientations of future development.

All these data collected will allow the production of a monograph on the town in order to be used later for other planning studies.

✓ **Elaboration of problem trees and definition of strategic orientations**

This step focuses on the analysis of problems identified and solutions found.

○ **The problem tree**

This tool will be used to further analyse the problem by identifying the causes and effects of the main problem. We will use a tree to illustrate this process. The roots of the tree constitute the causes, the main problem the trunk, and the branches represent the effects. The priority problems will be analysed and research done into the causes and effects of the main problem. This tool will allow reformulation or better identification of their real problem.

○ **The objectives tree**

It is important to know the situation desired by the urban centre, in order to find out how to get it. Thus, the decried situation (problem) will be reversed by the transformation of a negative situation into a positive situation, so the objective. An objective tree will be used to illustrate this situation. The main problem will be represented by the trunk of the tree, causes the roots, and the branches illustrate the effects.

To identify solutions to the key problem, CAMGIS will use a table of solutions. Here, the activities/projects likely to achieve the objectives will be identified. Ways to address each of such problems are the solutions. Moreover, the urban centre will reveal the possibility to execute the identified solutions through their own available resources and/or with external support.

**PHASE 3: FINAL PLANNING REPORTS**

✓ **Elaboration of Urban Development Plans**

The final planning proposals shall be made up of three reports namely:

- 1) Descriptive report,
- 2) Graphic documents,
- 3) The annexes (planning guide, etc..)

**A. Descriptive Report**

The descriptive report to be prepared shall contain:

1. Review of the actual situation and prospects of economic and demographic development of the town, considering its relations with neighbouring jurisdictions;
2. Planning objectives;
3. Programmes to be achieved;
4. Planning option adopted and its justification according to targeted perspectives, the equilibrium that must be preserved between urban development and rural planning, and optimum utilization of existing large or projected equipment;
5. Identification of key implementation phases of the option retained.

**B. Graphic documents**

The graphic documents at suitable scales will show:

- General land use;

- Extension zones and areas of restructuring and/or urban renewal;
- Major open spaces or woodlands to be maintained or to be created;
- The main urban or natural sites to be protected;
- Location of the most important main activities and facilities of public interest;
- The general organisation of transport and circulation with the layout of the main roads and infrastructure,
- The essential elements of drainage networks and waste disposal.

**C. The annexes (planning guide, etc..)**

Thematic maps shall be prepared at different scales. Some of them include:

- The direction of urban expansion zones
- The location of existing and proposed public and community facilities,
- Proposed zones to be renovated or restructured,
- Open spaces/green zones to be protected or created,
- The organization of proposed road networks,
- The organization of proposed water supply, electricity and drainage networks,
- The proposed land use plan

✓ **Preparation of development options**

Development options or alternative development plans will be based on the following principles:

- Controlled agglomeration;
- Consolidated urban development;
- Improved networks, infrastructure and existing facilities.

The evaluation criteria and selection of the best alternatives are:

- The functionality of the plan;
- The environmental impact of the plan;
- The profitability of the plan;
- Feasibility of implementation;
- The responsiveness to current and future needs and trends;
- The prevention of future problems and adverse impacts;
- The social impact;
- The economic impact;
- The effectiveness of land management.

✓ **Definition of urban development principles and programmes of activities**

○ **Spatial configuration**

It focuses on:

- Delimiting the urban area;
- The configuration of functional planning units;
- The naming of urban units, transit passages, numbering of plots and houses.

The structures of existing neighbourhoods and towns are not harmonized and therefore cannot provide a basis for functional planning and provision of equipment and services in an urban area. However, they must be taken into account when defining an urban spatial nomenclature...

○ **Preparation of the Urban Development Plan**

This step will involve the following activities:

- Preparation of an urban structure plan;
- Preparation of an urban development programme;
- Defining processes and procedures for decision making about urban development;

- Proposing strategies for implementing plans of urban structures and development programmes.

### ✓ **The Validation Workshops**

A two-day validation workshop will be organised to validate the justifying report. This workshop will:

- Assess, guide and contribute to the urban development plan;
- See if the expectations and concerns raised during the first workshop were taken into account;
- Criticise the urban development plan;
- Accept and visa the urban development plan and reports for approval and implementation.

During this workshop, participants will:

- Review and contribute to the finalisation of the detailed analysis of the problems and main objectives of urban development;
- Assist in defining the needs of urban planning;
- Clearly identify their fears and their expectations.

#### **1.2.4 Organisation of the project**

Operational management of the project involves two levels that are inseparable:

- The administration or management of the project; and
- The implementation of the project.

##### **1) Project Administration**

Liaising with the Chief of Mission, the administration of CAMGIS Bamenda will ensure that the project administration and management are smooth:

- Prepare, sign and deposit bids;
- Recruit resource persons;
- Prepare and sign contracts with resource persons;
- Provide the necessary logistics for the Project.

##### **2) Project teams**

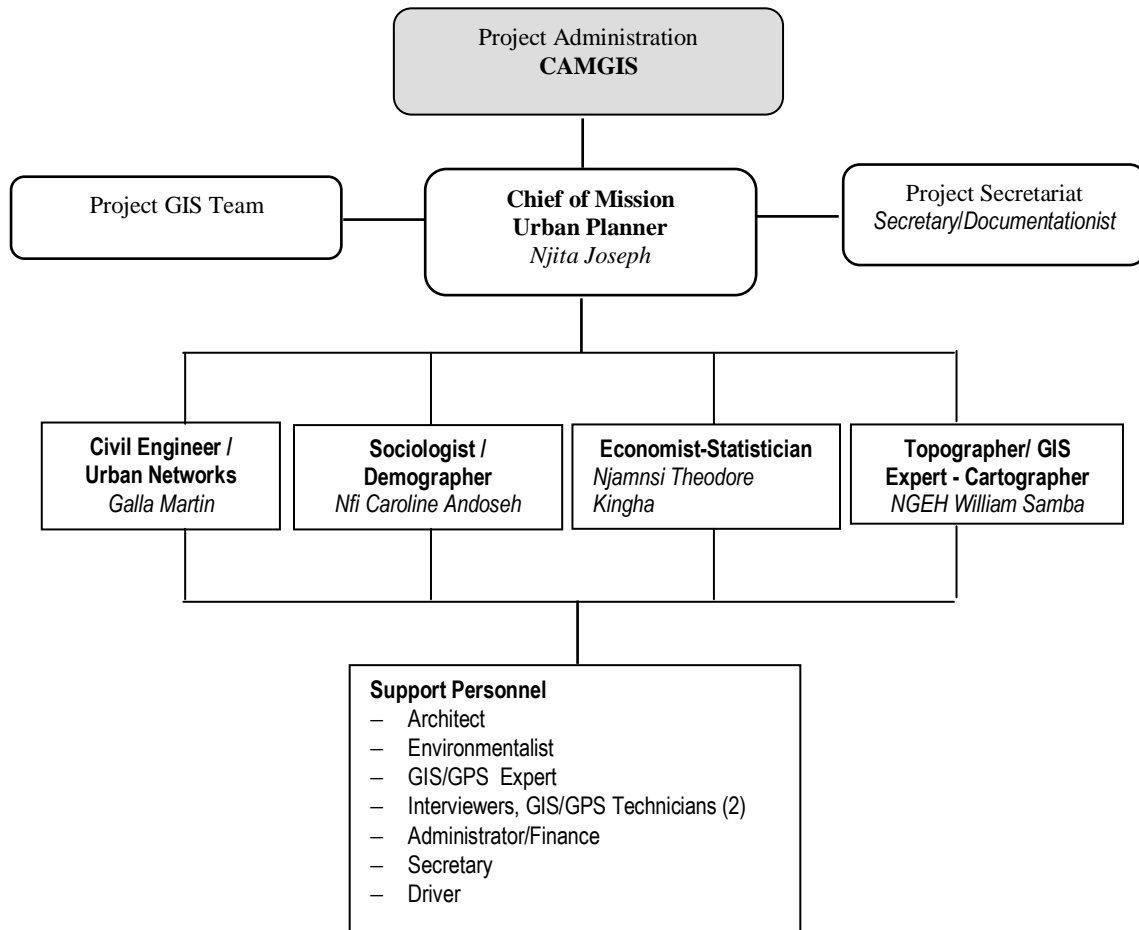
For the execution of the project, there will be a Project Team, coordinated by the Chief of Mission; the main team has core consultants, supported by subject-area specialists (including the GPS/GIS sub-team); support staff, and a secretariat.

#### **1.2.5 Intervention strategy**

For the execution of the project, there will be a Project Team, coordinated by the Chief of Mission; the main team has core consultants, supported by subject-area specialists (including the GPS/GIS sub-team); support staff, and a secretariat.

### 1.2.6 Organisation of human resources

The Organisation of the Project is illustrated in the following diagram:



## **PART II: SUMMARY**

## CHAPTER TWO: SUMMARY

### 1) What is a Summary Urban Development Plan?

This participatory land use document is prepared for an urban area where no land use or development document previously existed. Determining land allocations to various uses, it lays down the rules, restrictions and special rights of way for land use (Law No 2004/003 of 21/04/2004, ss.44 and 45). This Summary Urban Development Plan for Wum brings out the major orientations in policy, guidelines, strategies and projects in the sustainable development of Wum Town in the short-term.

### 2) Objectives of a Summary Urban Development Plan

The main objective of this Plan is to provide Wum Town with a simplified urban management tool as a means of promoting planned and sustainable urban development through the use of planning standards and principles accepted by key stakeholders and local actors.

### 3) State of Urban Development

The state of urban development in Wum is characterised by:

- Increasing discomfort and inconvenience of the urban environment.

The central problems of urban development, which contribute to these undesirable outcomes, include:

- Increasing degradation of the urban environment;
- Poor state of urban networks and infrastructure (urban roads and drainage).

From the problem trees presented, the following objectives have been developed:

- Ensure a healthy urban environment,
- Improve on the state of urban networks and infrastructure,
- Ensure the effective and efficient management of urban land,
- Improve on the quality of housing,
- Improve on the state of urban public and community facilities,
- Ensure equitable access to basic urban and social services,
- Ensure development of a strong and reliable economy,
- Ensure a stable and reliable local finance,
- Ensure satisfactory local governance.

### 4) Local Council Planning Obligations

On the other hand, local Councils should have the obligation to:

- Plan and ensure systematic land development;
- Compensate those who are affected negatively by planning and land development; decisions: compensation and worse payments;
- Resettle displaced residents and landlords in acceptable and improved conditions;
- Take preventive measures to avoid haphazard land occupation and development.

The state of urban development in Wum is characterised by:

- Increasing discomfort and inconveniences of the urban environment.

The central problems of urban development, which contribute to these undesirable outcomes, include:

- Increasing degradation of the urban environment;
- Poor state of urban networks and infrastructure: urban roads and drainage.

### 5) Local Council Planning Powers

For town planning and land development to be effective, local Councils need powers to:

- Prepare, implement and enforce the respect of town plans;
- Impose public right-of-ways on private land and development;
- Determine and control the use of land;



- Defer the development of land;
- Decide and impose priority development areas;
- Recover the cost of urban development from those who benefit: betterment charges and development rates;
- Reject or endorse land transactions and registrations of land titles;
- Control land development and construction (buildings).

## 6) Conceptual Framework for Planning Wum

The planning and development of Wum should be guided by:

- Making optimum use of the opportunities offered by the natural site;
- Maintaining existing man-made advantages and opportunities;
- Providing a forward and proactive plan, that is flexible to accommodate the past, present and future expectations and aspirations.

Although current means are limited, future generations could find the means to develop and manage the town to suit their needs and desires. Technology and inadequate means should therefore not pose a limit to our plans and visions for future generations.

However, the plan is design with respect to our current needs and means while at the same time ambitious enough with respect to changing means, desires and expectations of tomorrow's generations.

## 7) Limits of Planning Area

The proposed limits of the planning area have been established based on:

- The minimum carrying capacity of land within the planning area which can accommodate more than the projected population of Wum by 2015;
- The need to control and curb the unnecessary urban sprawl which is costly to inhabitants, the Council and the government;
- Existing physical features such as hills, major streams and forest reserve.

## 8) Elements of the Spatial Structure

From projections based on the Third General Population and Housing Census of 2005, Wum is a small town with a population of about 58 706 people; it is likely to grow to over 63 280 by 2015. This size of the population places Wum within the framework of Big Towns in the planning proposals.

The proposed elements of urban structure for Wum are made up of:

- Plots,
- Block,
- Neighbourhood,
- District,
- Small town,
- Big town.

Table 2.1: Proposed Population Sizes Of Elements of Urban Spatial Structure

Item	Spatial Unit	Threshold Population
01	Block	11 - 100
02	Neighbourhood	101 - 500
03	District	501 - 2 000
04	Small Town	2 001 - 10 000
05	Big Town	10 001 - 100 000
06	City	Greater than 100 000

Source: CAMGIS 2012

### 9) Concept of Urban Spatial Structure

The town or urban area is broken down into districts, each district is broken down into neighbourhoods, neighbourhood into blocks, and blocks are made up of individual plots, then isolated dwellings. Each unit shall have an appropriate centre providing the range of goods and services for the threshold population at that level with higher order centres providing all the goods and services provided by lower order centres.

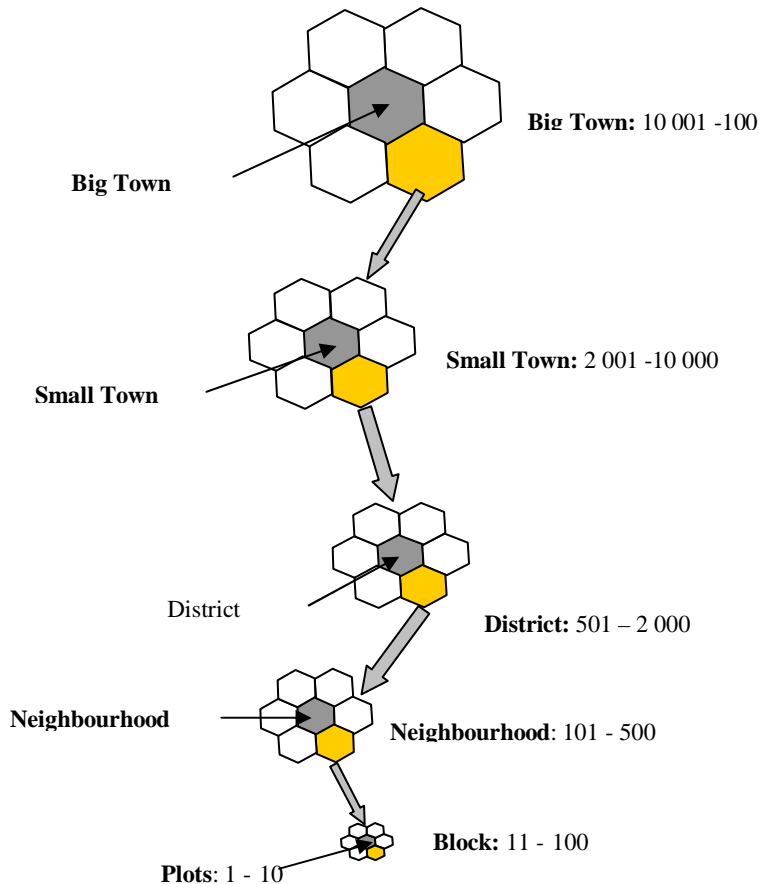


Figure 2.1: Concept of Urban Spatial Units

### 10) Proposed urban spatial structure

Wum Town, as defined within the framework of this summary plan, is broken down into four districts: the northern, eastern, central and southern districts. The Ring Road (the National 11) for now runs through the town, cutting through each of the districts.

### 11) Criteria for Preparing the Urban Land Use Plan

The proposed Wum Town land use plan is based on the following criteria:

- Separating areas, which should be protected from human activities from those which could be occupied and built upon;
- Promoting an acceptable degree of land use segregation which could contribute to enhancing the value of real estate development, while encouraging social interaction and integration;
- Maintaining and improving on the existing land use pattern;
- Minimizing land use conflicts and incompatibilities;
- Encouraging a balanced mix of land uses, which could minimize cost and time of travel;
- Permitting the gradual and progressive evolution of land use mix and densities to match socio-economic and cultural evolution of the population.

The proposed pattern of urban land use is conceived to:

- Ensure a balanced allocation of land for low, medium and high income groups for housing;
- Ensure a balanced spatial distribution of land uses which should enable households of different socio-economic groups to settle in any direction or part of the town;
- Provide the possibilities for households from different socio-economic groups to share services and facilities; and
- Reduce the tendency of ethnic and cultural clustering in favour of socio-cultural integration.

## 12) Urban Consolidation

Encouraging urban consolidation requires that the urban area should use as much land as it is socially, economically and culturally necessary. The advantages of urban consolidation include:

- The Council shall spend less money per hectare and person to provide a high level of infrastructure and services;
- The government shall spend less money per hectare and person to assist the Council;
- Inhabitants and visitors shall spend less time and money to use available facilities;
- Effective and optimum use shall be made of available services and infrastructure;
- Many more people shall have access to available services and infrastructure.

## 13) Housing and Land Development

Population, housing and land development are closely related. Understanding the trends, composition and patterns of population enables the estimation of housing needs and demands. It further enables the estimation of land needed to satisfy housing needs.

The projected population of Wum from 2011 to 2015 is expected to increase from about 57 430 to 63 280. Over this period, the annual increase in population is expected to be 2.9% based on natural growth rate with estimated household size of 5.4 persons, and an average of 2 households (h/h) per dwelling unit (D.U.), a total of about 220 dwelling units shall be needed to respond to the total housing needs by the population over this period. This means that considering the results of diagnosis in the housing sector that puts the existing stock of both high and medium quality housing in Wum in 2009 at 30%, whereas 70% is substandard; consequently, 188 new dwelling units shall need to be realized in 2010 and subsequently an annual average increase of 8 dwelling units between 2011 and 2014 to cope with the projected population changes.

A total of 6.22 hectares of land shall be needed over this period to cope with the overall increase in housing needs. On an annual basis between 1 000 m<sup>2</sup> to 7 200 m<sup>2</sup> of land shall be required to cope with housing needs.

The recommended housing policy is to create conditions for the poor and medium income groups to improve on their housing and increase their housing stock. This involves:

- a) Facilitating access to land for housing the poor;
- b) Facilitating access to technical assistance for housing;
- c) Promoting the development and use of local building materials;
- d) Encouraging the filling of vacant housing plots;
- e) Organising the supply of land for housing ;
- f) Simplifying procedures for approving building plans.

Housing improvement programme includes: -

- Improving on existing housing areas:
  - Infilling of vacant housing plots;
  - Rehabilitation of dilapidated houses.
- Creation of new housing areas:
  - Development of private layouts;
  - Development of public layouts;
  - Resettlement schemes.

#### **14) Public and community facilities**

Public and community facilities are those basic urban services, which have specific locations and sites and require that beneficiaries travel to them to benefit.

The main objectives of providing these services are to ensure:

- a) The balanced location with respect to the pattern of distribution of the population;
- b) Adequate provision of space;
- c) Suitable sites;
- d) Easy access to sites;
- e) Adequate capacity of facilities;
- f) Effective use of available services;
- g) Reduced pressure on existing facilities.

To realize these objectives this plan aims at:

- a) Making optimum use of existing facilities;
- b) Closely relating the provision of future facilities to the trends and patterns of needs and demand;
- c) Involving main stakeholders in the planning, location and sitting of facilities.

The main components of these facilities include:

- a) Educational facilities;
- b) Health facilities;
- c) Social welfare facilities;
- d) Civic and cultural facilities;
- e) Markets;
- f) Urban parking facilities;
- g) Sports and recreational facilities;
- h) Public and community halls.

#### **15) Urban Transportation Networks and Infrastructure**

The proposed hierarchy of road networks includes:

- Primary (National Road N11), which passes through the town;
- A dense network of secondary distributor roads, which distribute traffic in and out of town;
- Tertiary roads.

#### **16) Drainage Networks**

The proposed drainage networks take two forms:

- A hierarchy of road drainage channels and structures which is closely related to the hierarchy of urban road networks;
- A hierarchy of natural drainage channels which is closely related to existing water courses;
- A third level of drainage networks which do not feature on the plan is the drainage of individual properties, which should normally connect to road drainage channels.

#### **17) Sewage Network and Treatment**

- A low cost sewage transportation to treatment plant using tanker-trucks;
- Pondage system for treatment of sewage (This is a new idea to implement in Wum; it works best on a small scale. It will be experimented on a small scale in the proposed Wum Council Layout.);
- Sensitization of local population on the many advantages of the system.

#### **18) Water Supply Networks**

A proposed hierarchy of water supply networks includes:

- A transportation main which carries portable water from source to the storage reservoir or tank;
- A primary distributor network, which takes potable water from the reservoir to the major spatial units of the city;
- A secondary distributor network which distributes water within defined spatial units
- Tertiary and local distribution networks are expected to distribute water to neighbourhoods, clusters and blocks accordingly.
- Service connection mains link individual homes, buildings and sites to the whole water supply network.

### **19) Energy Supply Networks**

Electricity is the only collective source of energy in Wum. The hierarchy of electricity supply networks proposed includes:

- The high tension line;
- Medium tension lines which steps down the capacity and transports energy to main spatial units within Wum;
- Distribution lines which distributes energy to small spatial units such as clusters and blocks;
- Individual connections lines link individual buildings and homes to the whole network.

### **20) Protected Areas**

Protected areas within the town include vulnerable, risky and scenic sites, and sites of cultural heritage like the shrines, which should not be occupied, developed and built upon. These areas need to be protected, conserved, reclaimed and developed to reduce risk and natural disasters.

### **21) City Hygiene and Sanitation**

A holistic approach to managing urban hygiene and sanitation is recommended and involves:

- Sensitisation programme on hygiene and sanitation;
- Enforcement of hygiene and sanitation rules and regulations;
- Regular sanitary inspections, motivations and sanctions.

### **22) Solid Waste Management**

Solid waste collection points should be located at 200-500 metres apart along tertiary, secondary distributor roads accordingly. The management of solid waste involves:

- Sensitising the public on solid waste pre-collection management;
- Clarifying roles and responsibilities for solid waste management;
- Preparing and implementing a strategic plan for solid waste management;
- Enforcing rules and regulation on solid waste;
- Minimising the generation of solid waste at production sources;
- Encouraging the domestic separation and recycling of waste;
- Ensuring the regular and prompt collection, and disposal of solid waste.

### **23) Landscape Architecture**

To improve on the landscape and architecture of Wum, the following guidelines are recommended:

- Ensure proper urban planning and design;
- Ensure systematic subdivision, development and construction on urban land;
- Ensure effective control of land development;
- Prepare and implement a landscape architecture or greening plan of Wum Town;
- Prepare and implement land use plans and regulations.

## 24) Urban Economic Base

To establish a firm, sound and durable economic base for Wum, one will have move away from sole proprietor, small enterprise ventures towards corporate management and investment where experienced and competent managers use capital to generate and redistribute profits;

- Develop local management capacities;
- Encourage fair competition in investment operation;
- Mobilize local capital;
- Attract external capital;
- Search for profitable markets for local produce and products.

## 25) Local Council Finances

The level of local Council revenue will be increased and stabilized by:

- Building up public confidence in the Council;
- Reducing leakages of local Council revenue; and
- Diversifying sources of local Council revenue.

## 26) Partnership

Wum Council needs to galvanise and synergise the involvement and effective participation of its local and external collaborators/partners. The Council needs especially to effectively and efficiently use the facilities placed at its disposal by its partnership with the Ministry of Housing and Urban Development (MINHDU). The experiences of civil society, NGOs, economic operators, external departments of the government, administrative authorities, local development associations and other funding agencies need to be emulated.

## 27) Local Governance

The implementation of this scheme and the continuous planning and development of Wum shall depend on the development of functional institutional frameworks for local governance. These institutional arrangements should include:

- The establishment of the needs for appropriate human resources to conscientiously carry out various programmes to fruition;
- The creation of a local planning authority within the Council;
- The establishment of functional mechanisms for financing town planning and urban development;
- The creation of an effective forum for developing the economic base of the Council;
- The definition and enforcement of operational procedures for:
  - Town planning;
  - Land development;
  - Development control.

It is strongly recommended that the planning authorities and boards to be created have the balanced representatives of elected representatives of the population, local economic operators, local and city Council executives, the government, civil society and be gender sensitive.

However, to ensure continuity, sustainability and accountability, they should be chaired by independent personalities and professionals with clear visions and commitment for the development of Wum Town. In this respect, specific studies and recommendations should be carried out on the creation and functioning of these proposed organs.



## CHAPTER THREE: SYNTHESIS OF URBAN DIAGNOSIS

This chapter brings together the synopsis of the findings of the urban diagnosis in tabular form under mainly built and institutional environments.

### 3.1 THE BUILT ENVIRONMENT

Code	Sector	Problems	Causes	Consequences
<b>310</b>	<b>THE BUILT ENVIRONMENT</b>			
311	Problem of urban spatial structure	<ul style="list-style-type: none"> <li>– Lack of infrastructure to match growth and expansion;</li> <li>– Lack of statistics for assessing the demand and need for services;</li> <li>– No mechanism for monitoring the growth and spatial evolution of the town;</li> <li>– Lack of harmonious organization of land uses and development</li> </ul>	<ul style="list-style-type: none"> <li>– Insufficient collaboration between government services and private sector;</li> <li>– Government policies and procedures not clear in some aspects;</li> </ul>	<ul style="list-style-type: none"> <li>– Spatial evolution of the town is difficult to monitor;</li> <li>– Haphazard location of facilities and alignment of networks</li> <li>– Haphazard development</li> </ul>
312	Management of Urban Land	<ul style="list-style-type: none"> <li>– Anarchical subdivision of land into urban plots;</li> <li>– Unorganized conversion of rural land into urban land;</li> <li>– Inaccessibility of occupied sites;</li> <li>– Poorly drained sites;</li> </ul>	<ul style="list-style-type: none"> <li>– Landlords not guided on proper procedures;</li> <li>– Lack of market for land;</li> <li>– Un demarcated sites to be protected;</li> <li>– Concerned services are not very active</li> </ul>	<ul style="list-style-type: none"> <li>– Land in urban areas are anarchical subdivided;</li> <li>Some occupied sites are inaccessible</li> </ul>
313	The built environment	<ul style="list-style-type: none"> <li>– Boundaries of plots are not clear</li> <li>– Lack of organized land market</li> <li>– Lack of transparency and informal practices in land transaction</li> <li>– Non-existence of cadastral maps</li> </ul>	<ul style="list-style-type: none"> <li>– No cadastral maps</li> <li>– Boundaries of plots not clear</li> </ul>	<ul style="list-style-type: none"> <li>– Boundaries of plots are not clear</li> <li>– Non cadastral maps</li> <li>– Conflicts</li> </ul>
		<ul style="list-style-type: none"> <li>– Poor quality of housing</li> <li>– Inadequate housing for the poor.</li> <li>– Many houses are not connected to basic utilities;</li> </ul>	<ul style="list-style-type: none"> <li>– Poverty</li> </ul>	<ul style="list-style-type: none"> <li>– Poor quality of housing</li> <li>– Inadequate housing for the poor.</li> </ul>
314	Housing	<ul style="list-style-type: none"> <li>– Insufficient decent housing stock</li> </ul>	<ul style="list-style-type: none"> <li>– Lack of locally available skilled labour.</li> <li>– Inadequate natural (local) building materials.</li> <li>– High cost of imported building materials.</li> </ul>	<ul style="list-style-type: none"> <li>– High construction cost of decent housing;</li> <li>– Poor housing quality;</li> <li>– Increase in urban poverty and criminality.</li> </ul>
		<ul style="list-style-type: none"> <li>– Absence of housing development control.</li> </ul>	<ul style="list-style-type: none"> <li>– Undefined or poorly attributed development control responsibilities.</li> </ul>	<ul style="list-style-type: none"> <li>– Arbitrary implantation of housing units;</li> <li>– Use of poor building materials and building methods;</li> <li>– Risk of domestic accidents occurring.</li> </ul>



Summary Urban Development Plan - Wum Town

Code	Sector	Problems	Causes	Consequences
<b>310</b>	<b>THE BUILT ENVIRONMENT</b>			
		<ul style="list-style-type: none"> <li>– Uncontrolled and indiscriminate occupation of land.</li> </ul>	<ul style="list-style-type: none"> <li>– Absence of Town Plans and Strategic Orientations.</li> </ul>	<ul style="list-style-type: none"> <li>– Inappropriate use of land.</li> <li>– In hygienic urban environment.</li> </ul>
		<ul style="list-style-type: none"> <li>– Remarkable use of temporary building materials.</li> </ul>	<ul style="list-style-type: none"> <li>– Poor knowledge of laws regulating the building of houses in Cameroon.</li> </ul>	<ul style="list-style-type: none"> <li>– Building of houses unfit to protect against theft and fire incidents.</li> </ul>
		<ul style="list-style-type: none"> <li>– Poor drainage; -high water-borne diseases.</li> </ul>	<ul style="list-style-type: none"> <li>– Insufficient pipe-borne potable water</li> <li>– Poor sanitation.</li> </ul>	<ul style="list-style-type: none"> <li>– High hospitalization and family expenditure</li> <li>– Time lost on sickbeds</li> </ul>
		<ul style="list-style-type: none"> <li>– Inadequate financing of housing development projects.</li> </ul>	<ul style="list-style-type: none"> <li>– Absence of local banks and financial institutions;</li> <li>– Absence of a Housing Development bank.</li> </ul>	<ul style="list-style-type: none"> <li>– Insufficient supply of housing units;</li> <li>– Emergence of squatter settlements.</li> </ul>

### 3.2 ECONOMIC BASE

Code	Sector	Problems	Causes	Consequences
<b>320</b>	<b>ECONOMIC BASE</b>			
321	Urban Economic Base	<ul style="list-style-type: none"> <li>– Slow and weak commercial sector; that is the commercial sector is operating far below its full capacity</li> <li>– Weak secondary sector which has been the engine of growth and development for many communities and countries production sector;</li> <li>– Feeble corporate investment initiatives;</li> <li>– Weak government technical and financial support for economic operators;</li> <li>– Insufficient credits for small, medium and large scale enterprises;</li> <li>– Inadequate and weak financial institutions</li> </ul>	<ul style="list-style-type: none"> <li>– Poor state of the road especially the ring roads, inter-quarter roads and road linking Wum to other neighbouring communities</li> <li>– Very poor and insufficient energy supply in spite the presence of a huge Central and West African hydro-electric potential (that is the Menchum fall)</li> <li>– Weak banking institutions</li> <li>– Very little or no commercial production of agric produce</li> <li>– Insufficient collateral security especially land certificates and land titles</li> <li>– Weak and reluctant response of the local population towards banking activities. They mostly prefer hoarding or savings in family gathering (Njangie houses)</li> </ul>	<ul style="list-style-type: none"> <li>– Weak economic base</li> <li>– Low rate of economic growth and development</li> <li>– High level of unemployment and underemployment</li> <li>– High level of poverty and low living standards</li> </ul>

### 3.3 PUBLIC AND COMMUNITY FACILITIES

Code	Sector	Problems	Causes	Consequences
<b>330</b>	<b>PUBLIC AND COMMUNITY FACILITIES</b>			
331	Educational Facilities	<ul style="list-style-type: none"> <li>- Untrained teachers in schools;</li> <li>- Insufficient furniture and equipment</li> <li>- No post-secondary institution;</li> <li>- Gap exist in the provision of both primary and secondary schools</li> </ul>	<ul style="list-style-type: none"> <li>- Unemployment of trained teachers;</li> <li>- Insufficient annual/continuous evaluation of equipment by the education providers concerned;</li> <li>- Inadequate provision of educational facilities</li> </ul>	<ul style="list-style-type: none"> <li>- Areas are deprived of basic needs</li> <li>- Land allocation not available/suitable for future developments.</li> <li>- Exodus to school in Buea, Bamenda and Nigeria</li> <li>- High illiteracy</li> </ul>
332	Health Facilities	<ul style="list-style-type: none"> <li>- Over utilized capacities.</li> <li>- Gap exist in the provision</li> <li>- Inadequate accommodation</li> <li>- Poorly furnished and equipped;</li> <li>- Limited capacity in terms of personnel and facilities;</li> <li>- Extremely large catchments areas</li> </ul>	<ul style="list-style-type: none"> <li>- Insufficient facilities and weak staff strength</li> <li>- Non application of recommendations of annual/continuous evaluation of equipment by the ministry concerned;</li> </ul>	<ul style="list-style-type: none"> <li>- Buildings are poorly maintained</li> <li>- Rapid deterioration Patients lack proper health care;</li> <li>- Care givers exposed to health risks.</li> <li>- Short life expectancy</li> <li>- Death rate high</li> </ul>
333	Recreational and Sports Facilities	<ul style="list-style-type: none"> <li>- No adequate facilities in terms of type and quality</li> </ul>	<ul style="list-style-type: none"> <li>- No provision of facilities</li> </ul>	<ul style="list-style-type: none"> <li>- Social disfunctioning</li> <li>- Social well-being decreases</li> <li>- Anarchical use of available space;</li> </ul>
334	Civic and Cultural Facilities	<ul style="list-style-type: none"> <li>- No befitting structure</li> <li>- Limited finances to build a new one</li> </ul>	<ul style="list-style-type: none"> <li>- No structure provided</li> </ul>	<ul style="list-style-type: none"> <li>- Malfunction of the activities</li> </ul>
335	Tourism	<ul style="list-style-type: none"> <li>- There are sub-standard and inadequate facilities</li> </ul>	<ul style="list-style-type: none"> <li>- Lack of professionalization in the sector</li> <li>- Undeveloped sites</li> <li>- The Divisional Delegation has no building of its own, nor a means of transport</li> </ul>	<ul style="list-style-type: none"> <li>- Insufficient leisure activities</li> </ul>

### 3.4 URBAN NETWORKS AND INFRASTRUCTURE

Code	Sector	Problems	Causes	Consequences
<b>340</b>	<b>URBAN NETWORKS AND INFRASTRUCTURE</b>			
341	Road Networks	<ul style="list-style-type: none"> <li>- Unplanned and undeveloped networks,</li> <li>- Lack functional networks,</li> <li>- High cost of travel.</li> </ul>	<ul style="list-style-type: none"> <li>- Undeveloped networks,</li> <li>- Inexistent road networks,</li> </ul>	<ul style="list-style-type: none"> <li>- Poor road connectivity</li> </ul>
342	Drainage	<ul style="list-style-type: none"> <li>- Un-constructed natural drainage;</li> <li>- Absence of road drainage channels and structures;</li> </ul>	<ul style="list-style-type: none"> <li>- Lack of funding for drainage activities</li> </ul>	<ul style="list-style-type: none"> <li>- Natural drainage not constructed;</li> <li>- Private property/premises poorly drained</li> </ul>

Summary Urban Development Plan - Wum Town

Code	Sector	Problems	Causes	Consequences
		<ul style="list-style-type: none"> <li>- Poorly drained private and individual premises;</li> <li>- Absence of a coherent hierarchy of drainage networks.</li> </ul>		<ul style="list-style-type: none"> <li>- Poor sanitary conditions</li> </ul>
343	Water Supply	<ul style="list-style-type: none"> <li>- Unsatisfactory quality of water;</li> <li>- Several uncoordinated independent sources;</li> <li>- Inadequate network coverage</li> </ul>	<ul style="list-style-type: none"> <li>- Poorly maintained networks and infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>- Absence of sufficient water supply</li> <li>- Poor quality water supply;</li> <li>- Poor quality water supply;</li> <li>- Water borne diseases</li> </ul>
344	Electricity	<ul style="list-style-type: none"> <li>- Dependence on other sources of energy supply: electricity;</li> <li>- High cost of connection to electricity supply;</li> <li>- Frequent cuts in electricity supply;</li> <li>- High cost of domestic gas;</li> <li>- Over-dependence on firewood which exerts pressure on the environment.</li> </ul>	<ul style="list-style-type: none"> <li>- Lack of sustainable energy supply;</li> <li>- Limited capacity of electricity supply;</li> <li>- High cost;</li> <li>- Frequent cuts in electricity supply;</li> <li>- Poorly maintained networks</li> </ul>	<ul style="list-style-type: none"> <li>- Poor lighting;</li> <li>- Monopoly of source of energy;</li> <li>- Haphazardly connected electricity networks;</li> <li>- Frequent cuts in electricity supply</li> <li>- Damage of appliances;</li> </ul>
345	Telecommunications (ICT)	<ul style="list-style-type: none"> <li>- Inadequate coverage of the town by all the network service providers</li> </ul>	<ul style="list-style-type: none"> <li>- Poorly maintained existing communications equipment;</li> <li>- Outdated communications technologies;</li> <li>- Slow adoption of changing ICT times</li> </ul>	<ul style="list-style-type: none"> <li>- Poor network connections</li> </ul>

### 3.5 URBAN ENVIRONMENT AND NATURE PROTECTION

Code	Sector	Problems	Causes	Consequences
350	URBAN ENVIRONMENT AND NATURE PROTECTION			
351	Urban environment and nature protection	Destruction of the natural environment	Wastes from households and oil spills from garages; Deforestation	Destruction of the natural environment and biodiversity loss
		Air and water pollution	Wastes from households and garages;	Poor waste management; Air and water pollution;
		Cropper/herder conflicts	Pressure on farmlands and poor farm to market roads; Population pressure on land, ignorance and the administration; Pressure on farmlands, poor farm to	Loss of cattle, court cases and wastage of limited income;

*Summary Urban Development Plan - Wum Town*

<b>Code</b>	<b>Sector</b>	<b>Problems</b>	<b>Causes</b>	<b>Consequences</b>
			market roads and the search for water for animals and for irrigation;	
		Lack of a good quality potable water	Pollution of streams	Bad quality potable water; Prevalence of water borne diseases
		Haphazard planting of crops (corn, plantains and banana) and trees around homes	Pressure on farmlands and poor farm to market roads	Obstruction of electricity lines by these trees when matured Poor picturesque view of homes
		Encroachment of water catchment/shed areas by croppers for cultivation of crops, by herders for grazing and for construction of homes	Rapid expansion and pressure on limited land;	Depletion of water table and shortage of potable water
		Poor hygiene and sanitation in homes: Defecating in streams and in the open and poor toilet construction	Lack of knowledge on basic rules in hygiene and sanitation, Lack of toilets and pipe borne water system	High prevalence of diseases
		Haphazard settlement pattern	Rapid expansion and pressure on limited land;	Obstruction of right of way and poor provision of services
		Construction of homes in landslide/swampy areas	Rapid expansion and pressure on limited land;	Flooding and loss of property
		Burying of corpses in water flooded graves	Shortage of suitable land for residential use and lack of cemeteries	Contamination of the water table
		Encroachment into shrines	Rapid expansion and pressure on limited land;	Erosion of cultural values
		Poor waste management	Lack of appropriate disposal outlets;	Pollution
		Pollution of streams	Poor waste management; Absence of a conventional washing point for cars and ignorance	Pollution of streams Poor quality of water
		Flooding	Siltation of the water courses and Climate change	Loss of life and property
		Excessive erosion due to the removal of the natural vegetation	Removal of vegetative cover of the soil	Destruction of the natural environment and biodiversity loss
		Dust pollution	Removal of vegetative cover of the soil and road construction	Respiratory illnesses

### 3.6 COUNCIL FINANCE AND INSTITUTIONAL SECTORS

Code	Sector	Problems	Causes	Consequences
<b>360</b>	<b>COUNCIL FINANCE AND INSTITUTIONAL SECTORS</b>			
361	Council finance	<ul style="list-style-type: none"> <li>- The lack of cadastral plans and records of ownership hamper the contribution of land and property taxes to Council revenue.</li> <li>- High taxes scared potential taxpayers.</li> <li>- Population not adequately involved and informed on how tax money is spent.</li> <li>- The fall in customs revenue and toll gate are heavily attributed to the poor state of the roads;</li> <li>- Inadequate data especially from the previous administration for a better diagnosis of the income and expenditure situation of the Council</li> </ul>	<ul style="list-style-type: none"> <li>- No cadastral plans and records;</li> <li>- High taxes;</li> <li>- Bad roads;</li> <li>- Fall in customs revenue</li> </ul>	<ul style="list-style-type: none"> <li>- Contribution of land and property taxes inexistence</li> <li>- Potential taxpayers reduced</li> <li>- Fall in customs revenue</li> <li>- Lacked of archives</li> </ul>
362	Local Governance and Partnership	<ul style="list-style-type: none"> <li>- Forums of interface are unavailable between the Council and the population;</li> <li>- Inadequate personnel;</li> <li>- Personification of service delivery;</li> </ul>	<ul style="list-style-type: none"> <li>- Unavailable Forums of interface between the Council and the population;</li> </ul>	<ul style="list-style-type: none"> <li>- Inadequate personnel;</li> </ul>

## **CHAPTER FOUR: CONFIRMATION OF PROBLEM TREES AND OBJECTIVES**

### **4.1 State of Urban Development**

The state of urban development in Wum is characterised by:

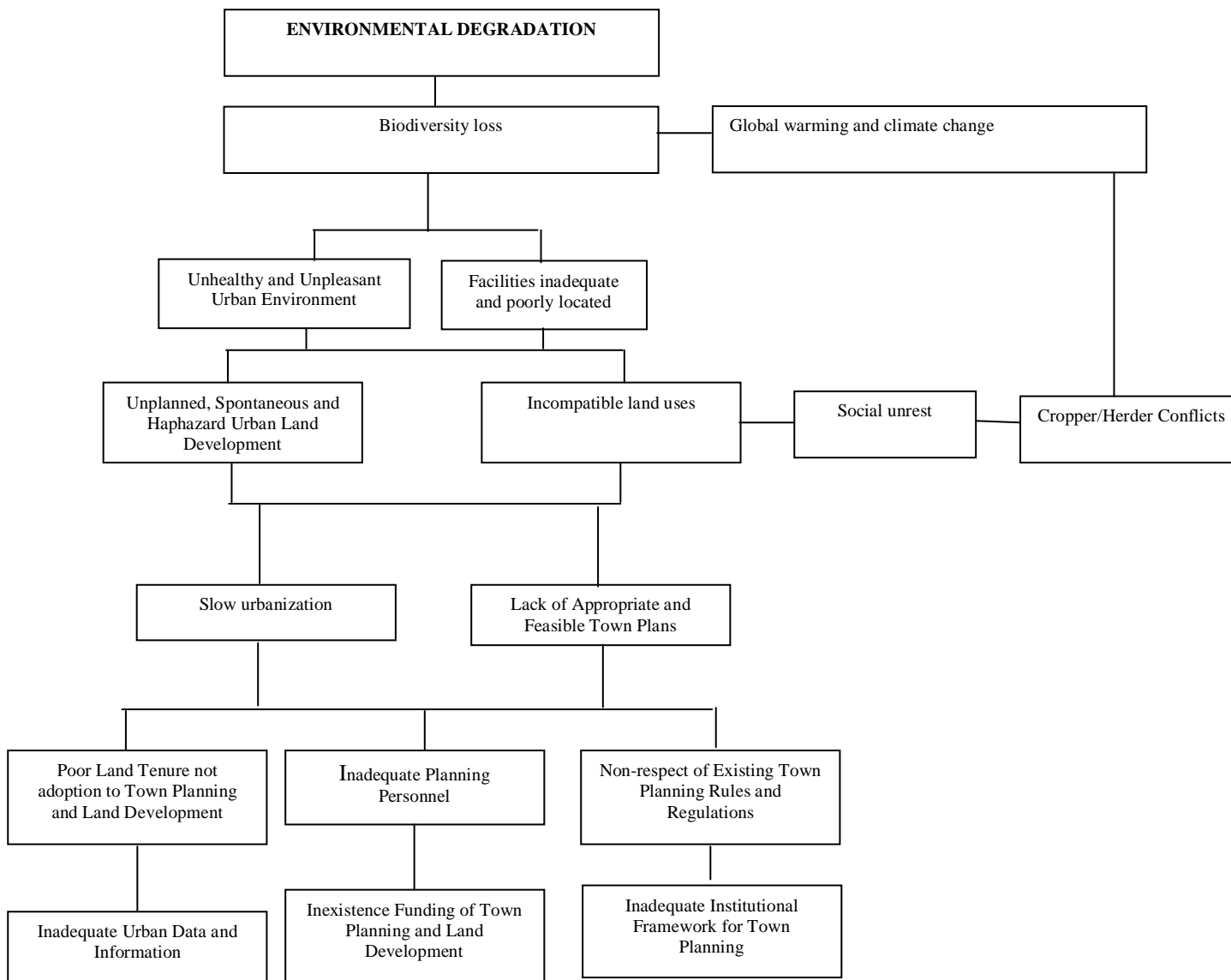
- Entrenching poverty;
- Increasing inequality and inequitable access to economic opportunities and social services;
- Increasing discomfort and inconveniences of the urban environment.

The central problems of urban development, which contribute to these undesirable situations include:

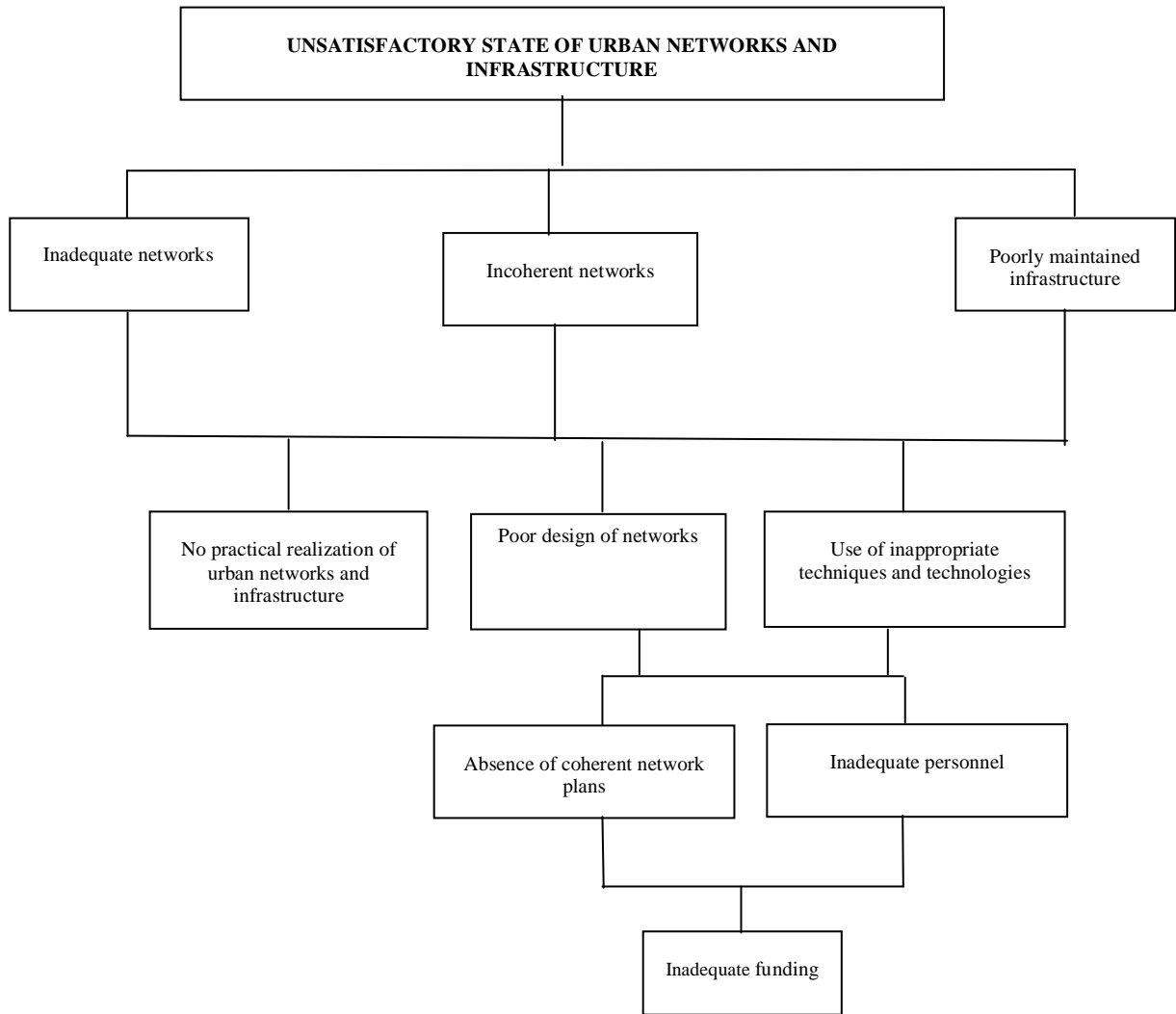
- Increasing degradation of the urban environment;
- Poor state of urban networks and infrastructure: urban roads and drainage;
- Poor state of urban housing;
- Poor state of public and community facilities;
- Inequitable access to basic urban and social services;
- Weak and unstable urban economy;
- Weak and unreliable local finance;
- Unsatisfactory local governance;
- Poor and ineffective management of urban lands.

The primary causes of these central problems have been illustrated in the following problem trees.

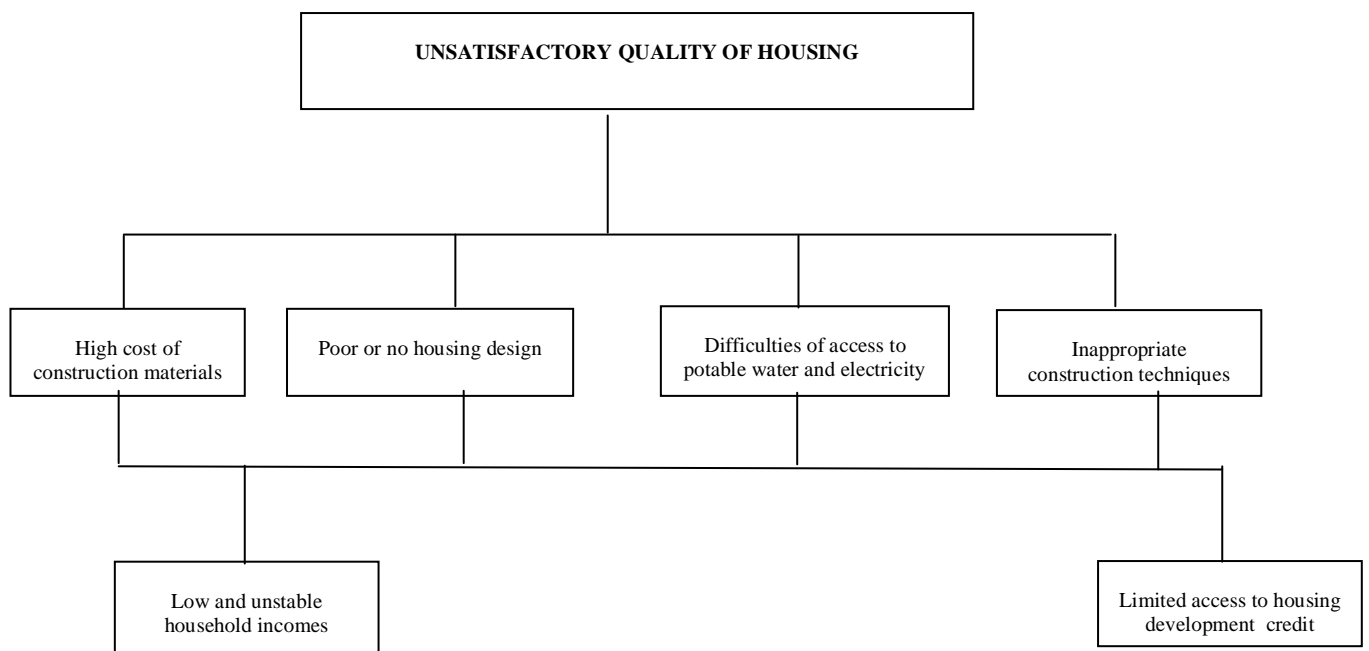
**PROBLEM I**



**PROBLEM II**

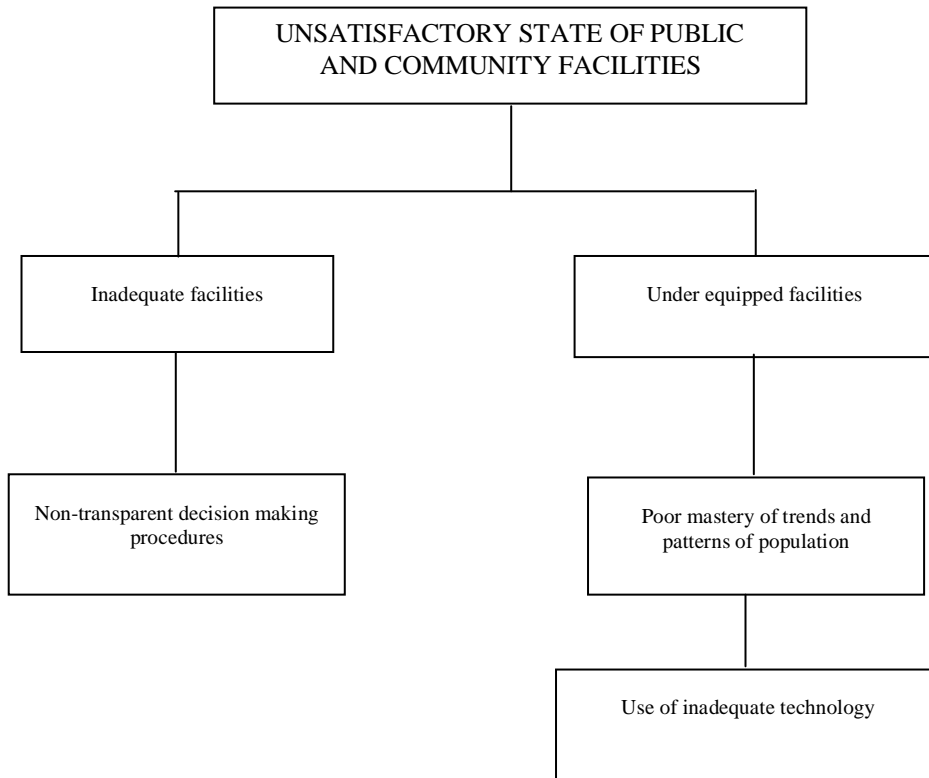


**PROBLEM III**

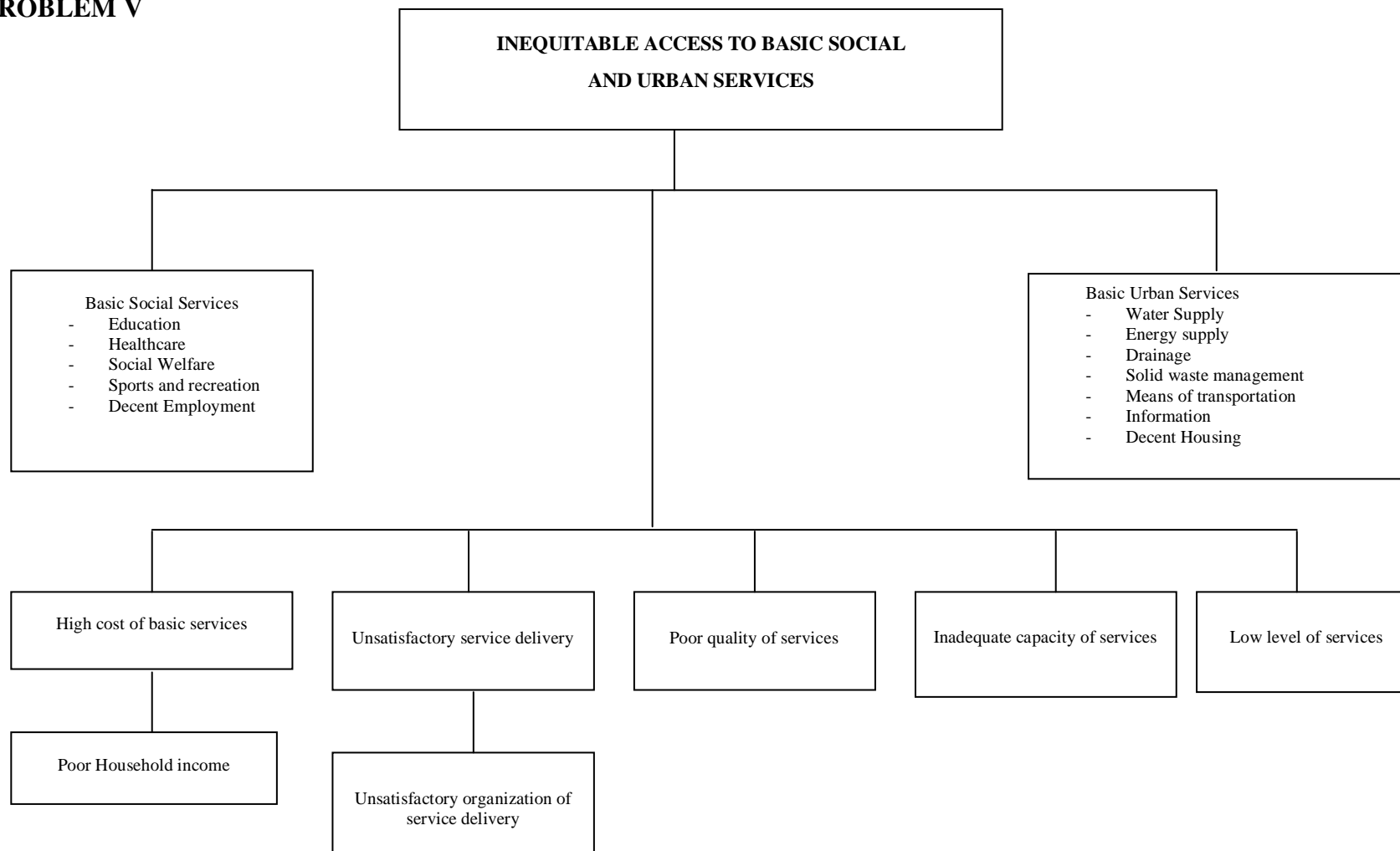




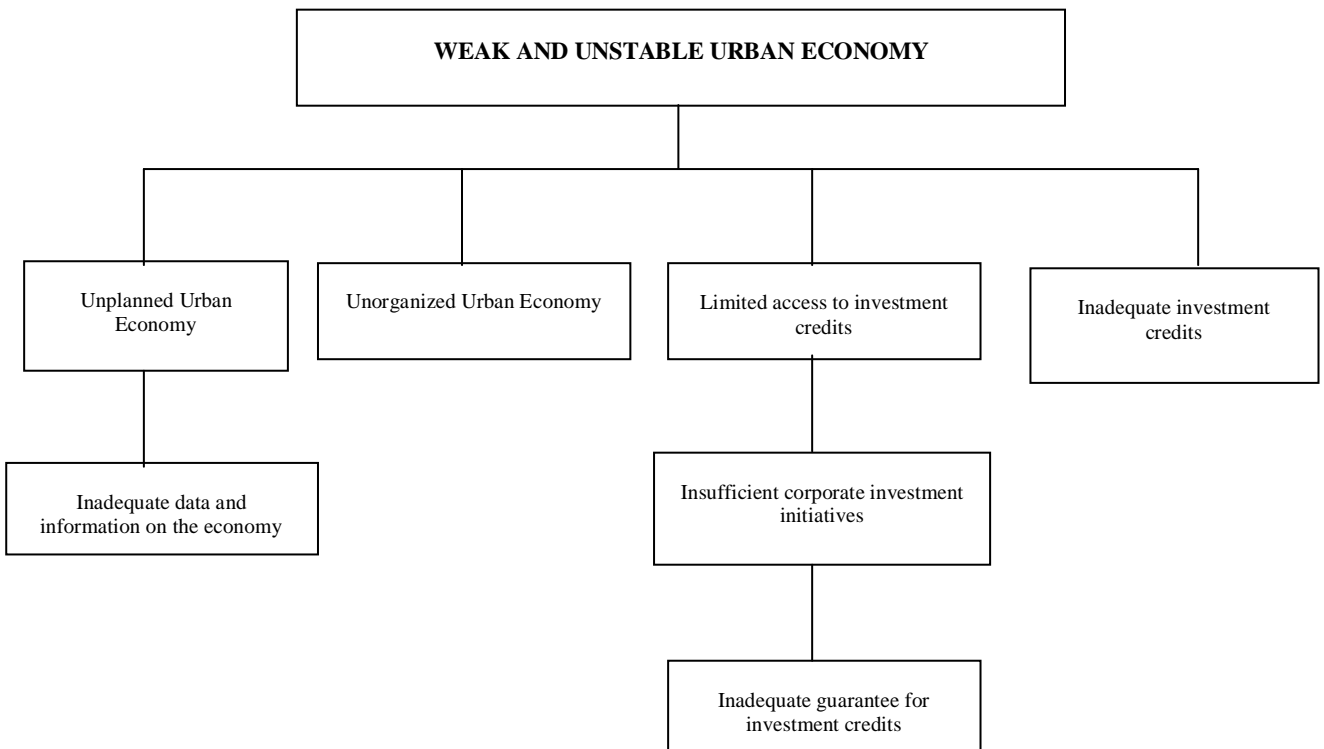
**PROBLEM IV**



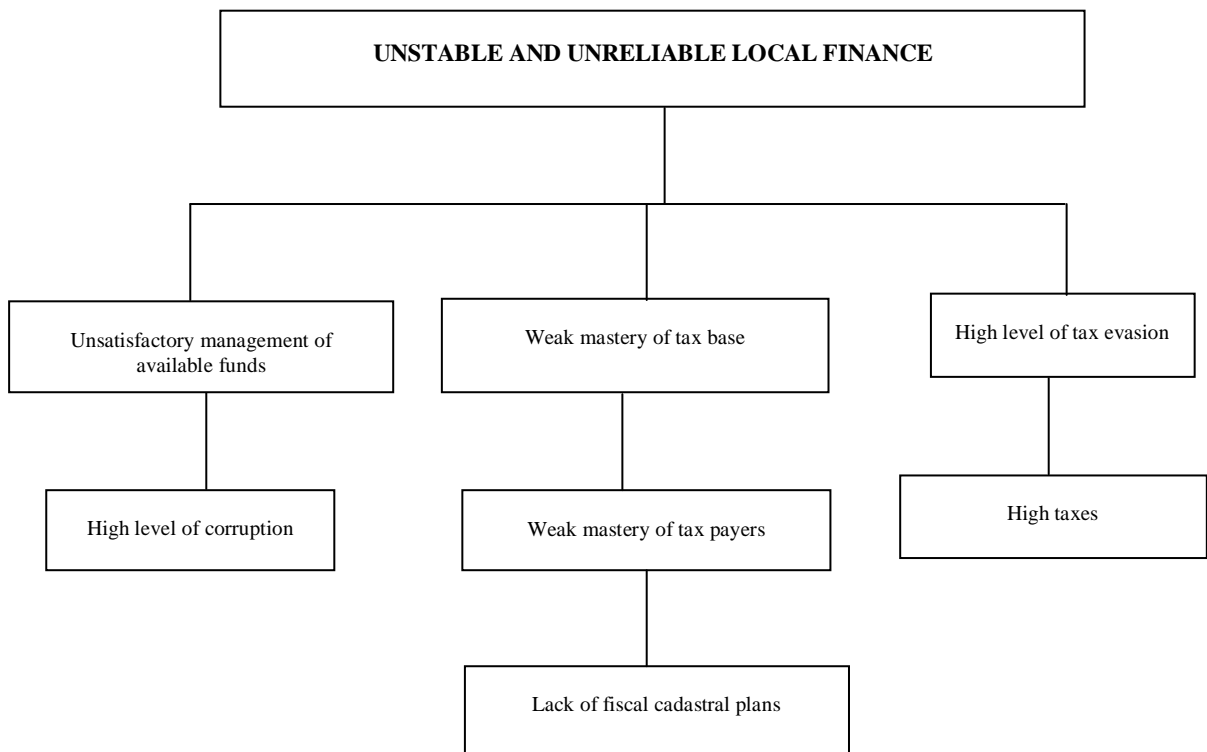
**PROBLEM V**



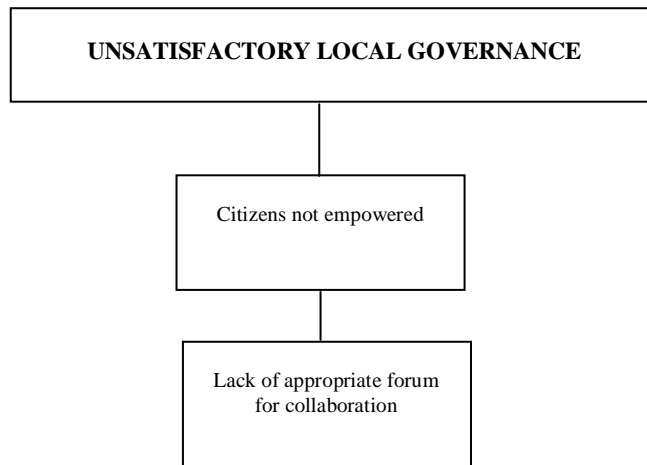
**PROBLEM VI**



**PROBLEM VII**



**PROBLEM VIII**

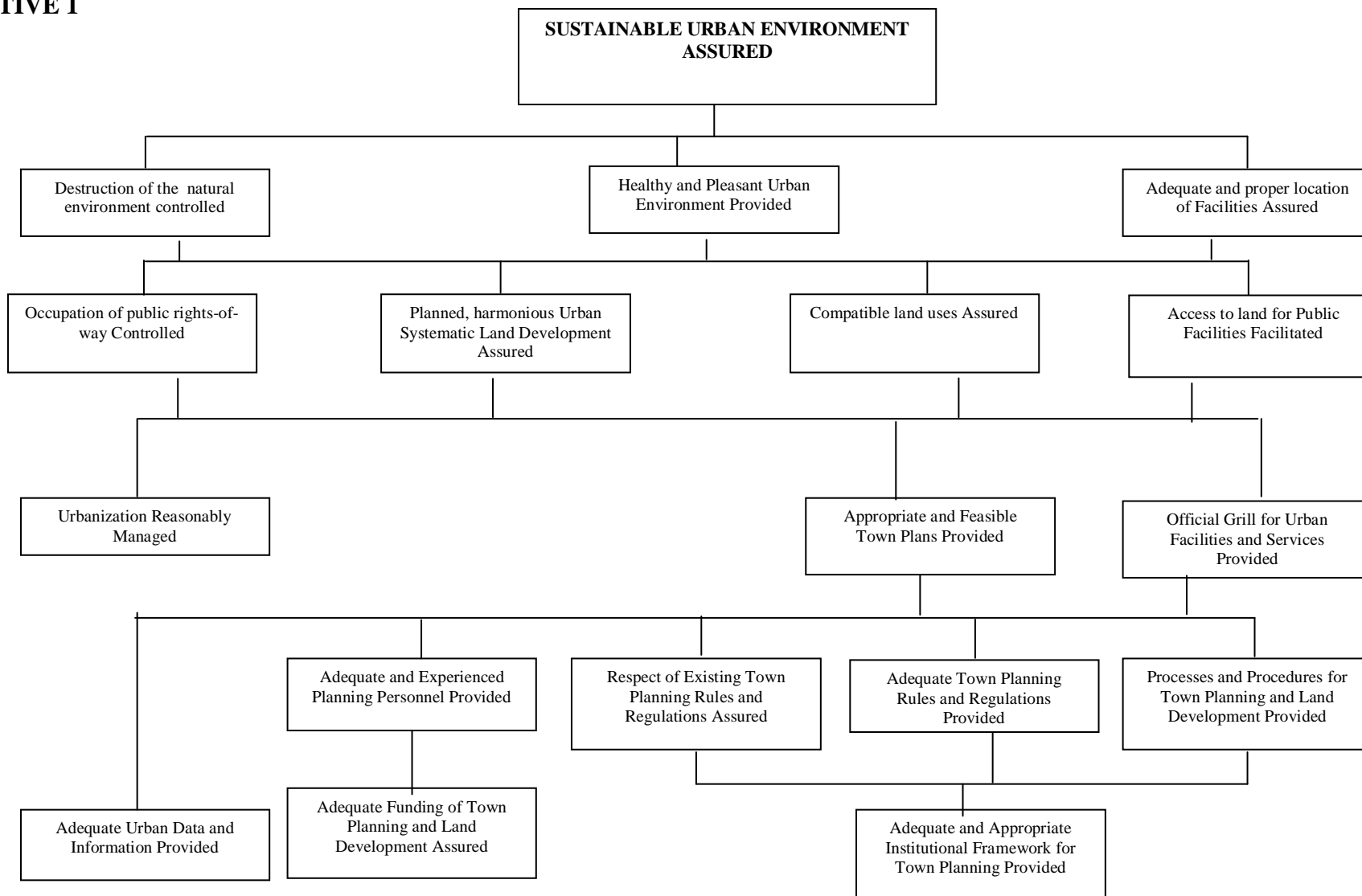


## **4.2 Strategic Orientations**

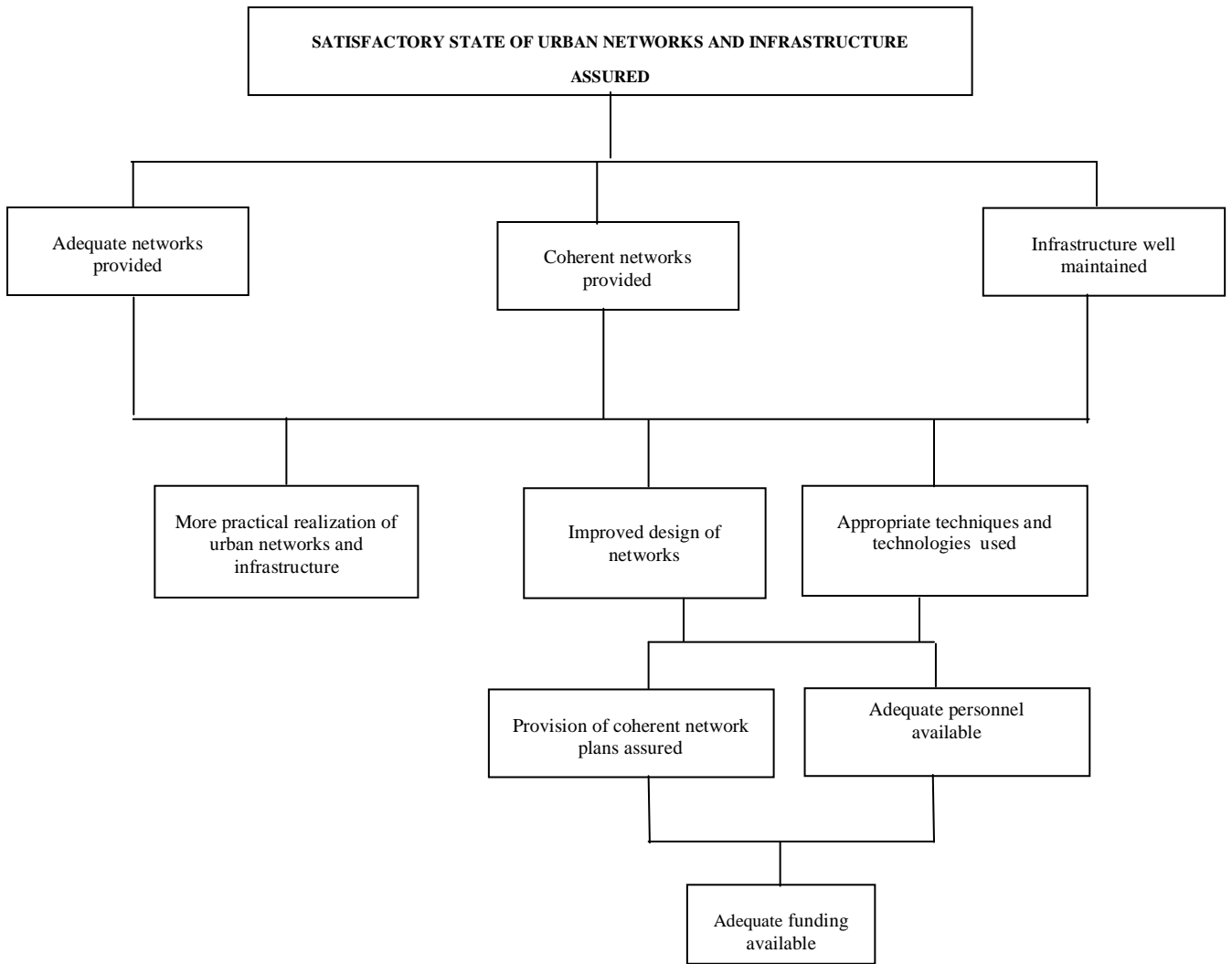
From the problem trees presented above, the following strategic orientations are necessary:

1. Ensure a healthy urban environment;
2. Improve on the state of urban networks and infrastructure;
3. Ensure the effective and efficient management of urban land;
4. Improve on the quality of housing;
5. Improve on the state of urban public and community facilities;
6. Ensure equitable access to basic urban and social services;
7. Ensure development of a strong and reliable economy;
8. Ensure a stable and reliable local finance;
9. Ensure satisfactory local governance.

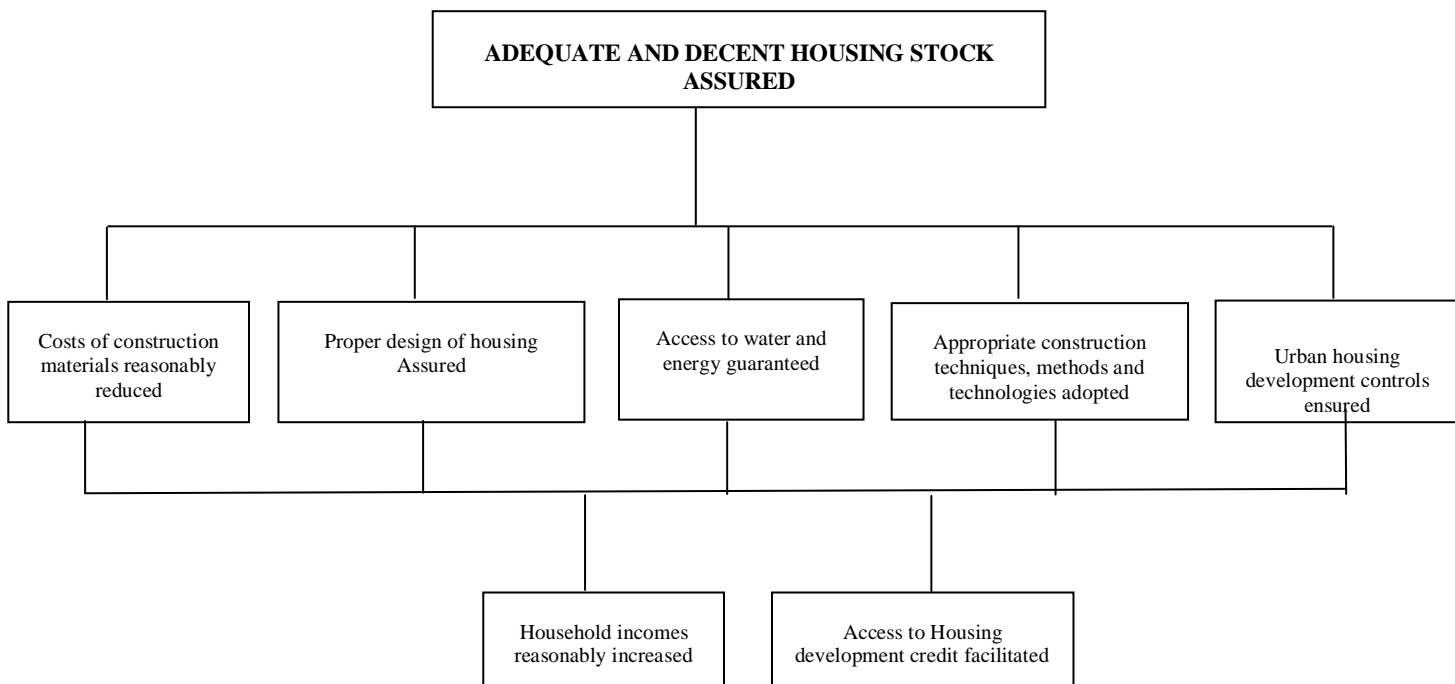
**OBJECTIVE 1**



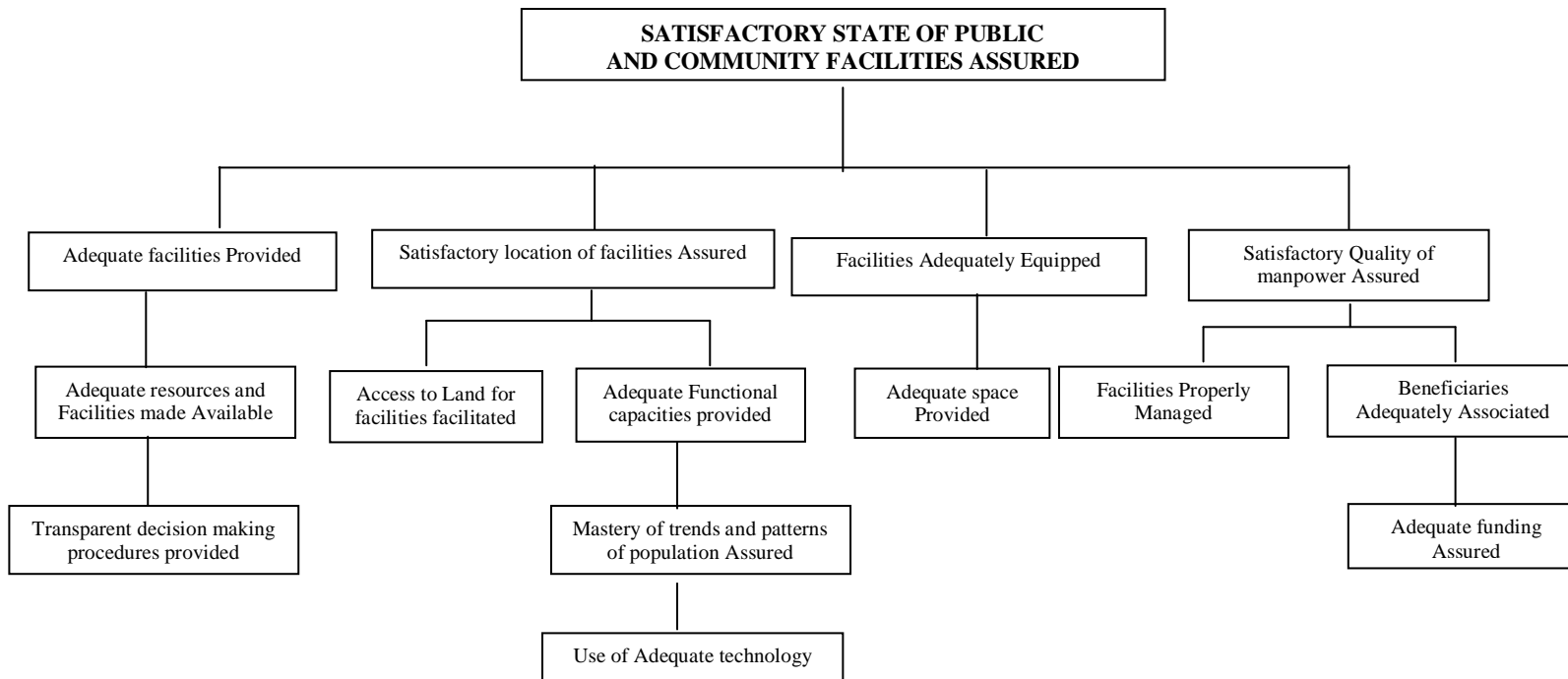
**OBJECTIVE 2**



**OBJECTIVE 3**

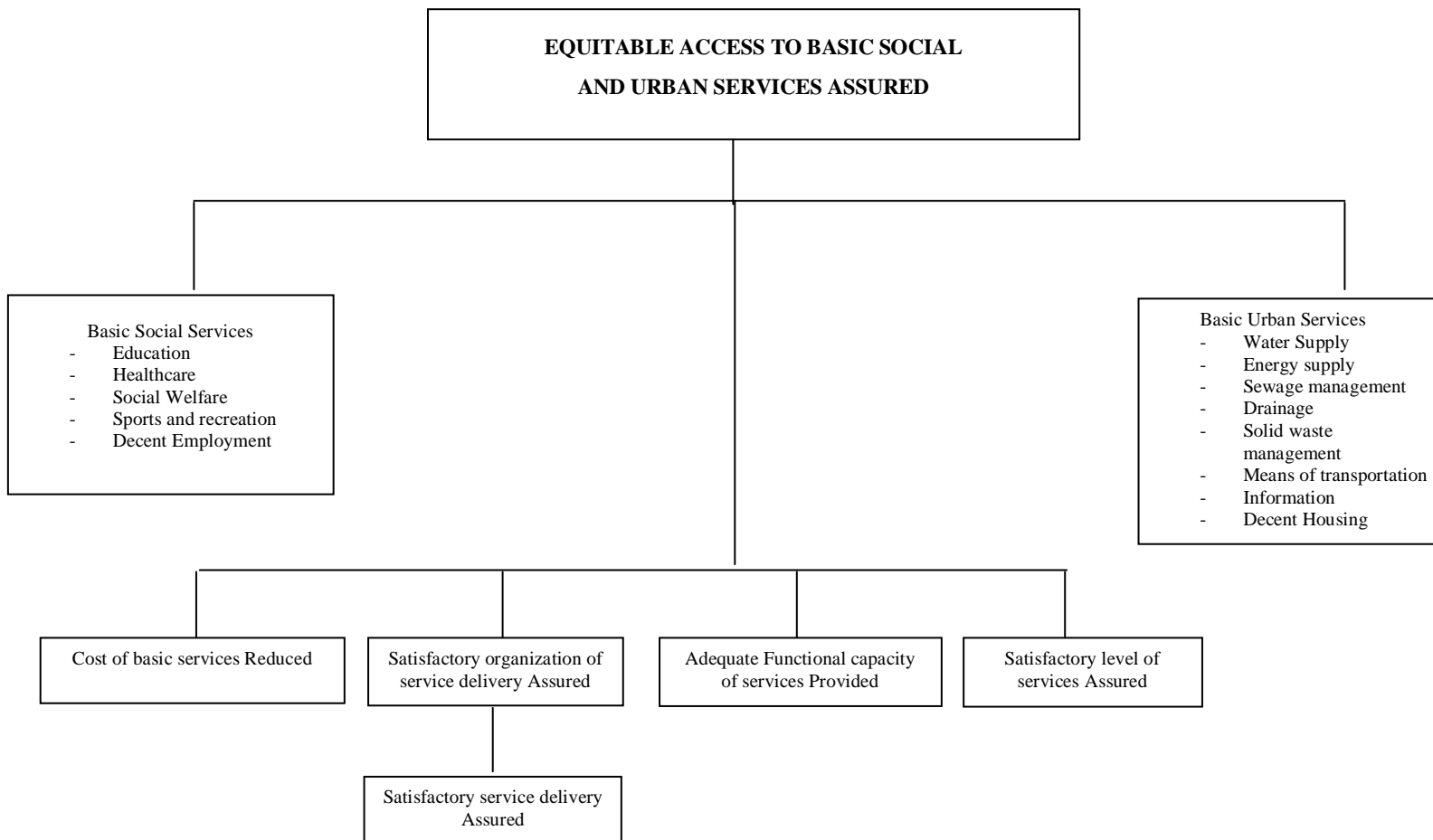


**OBJECTIVE 4**

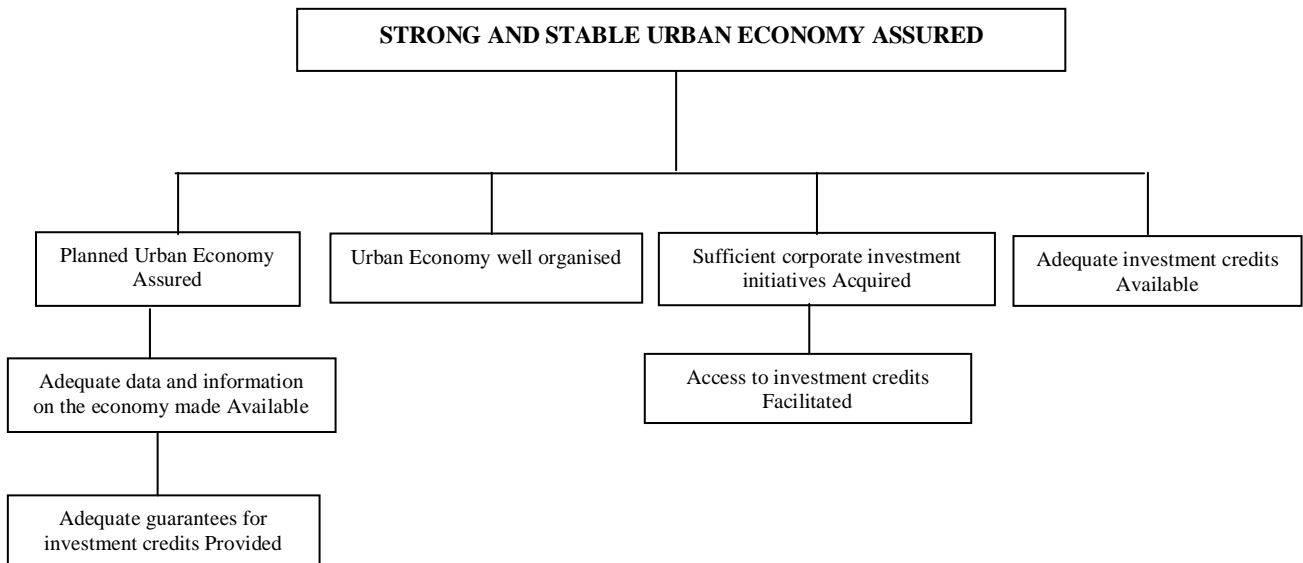




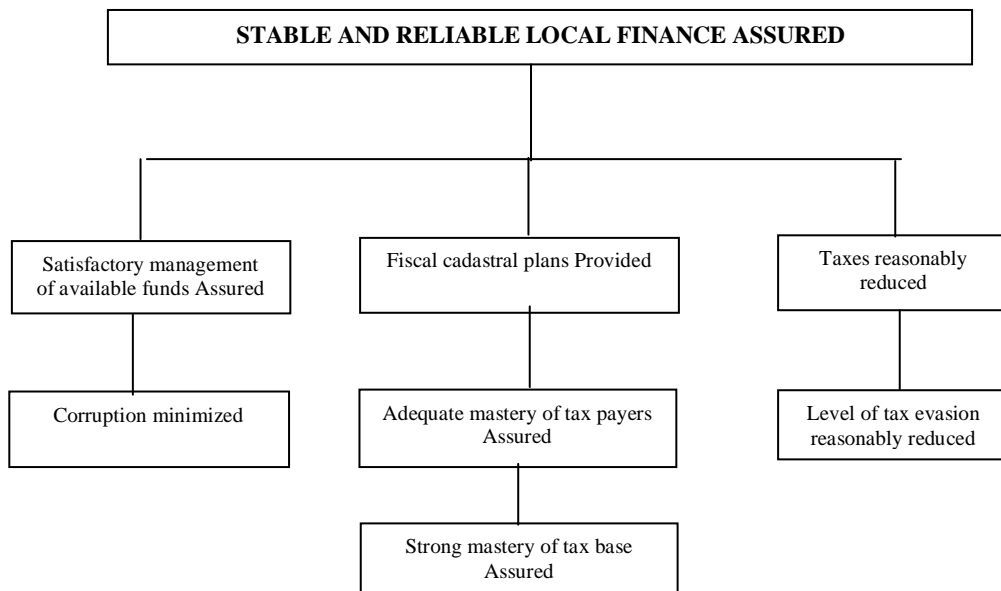
**OBJECTIVE 5**



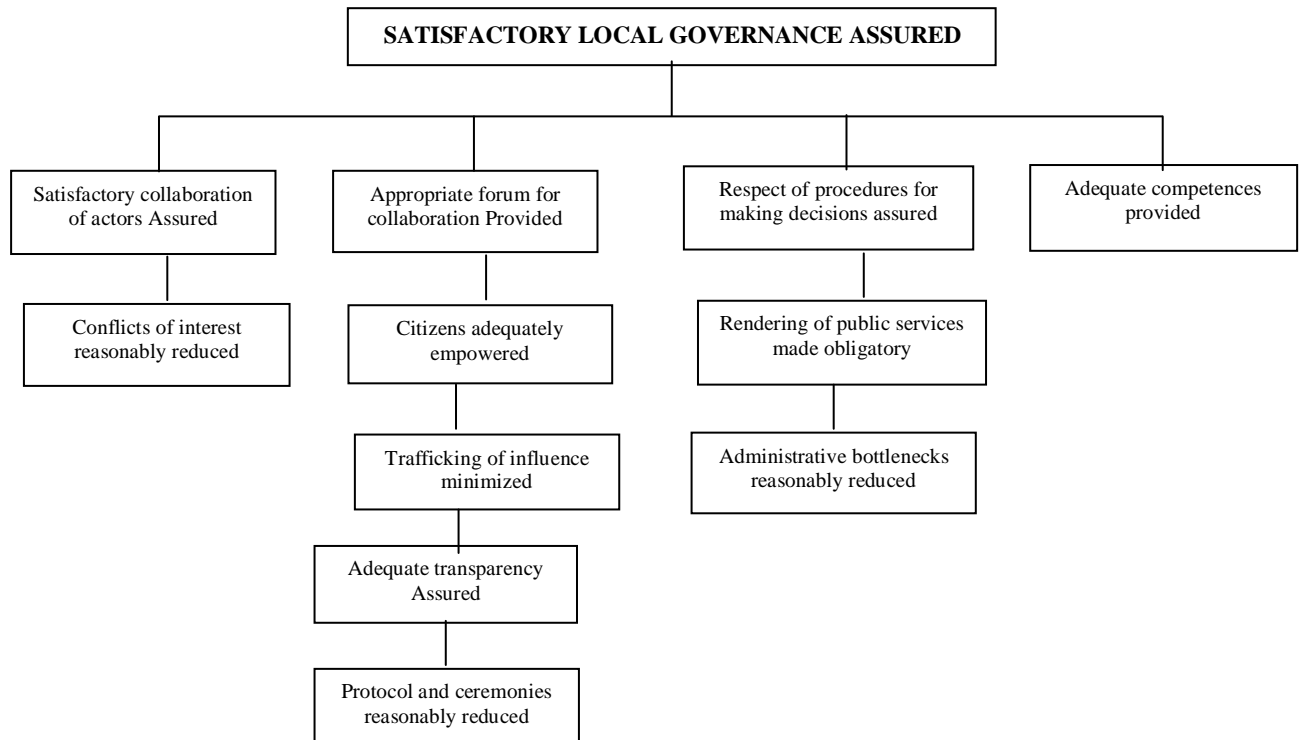
**OBJECTIVE 6**



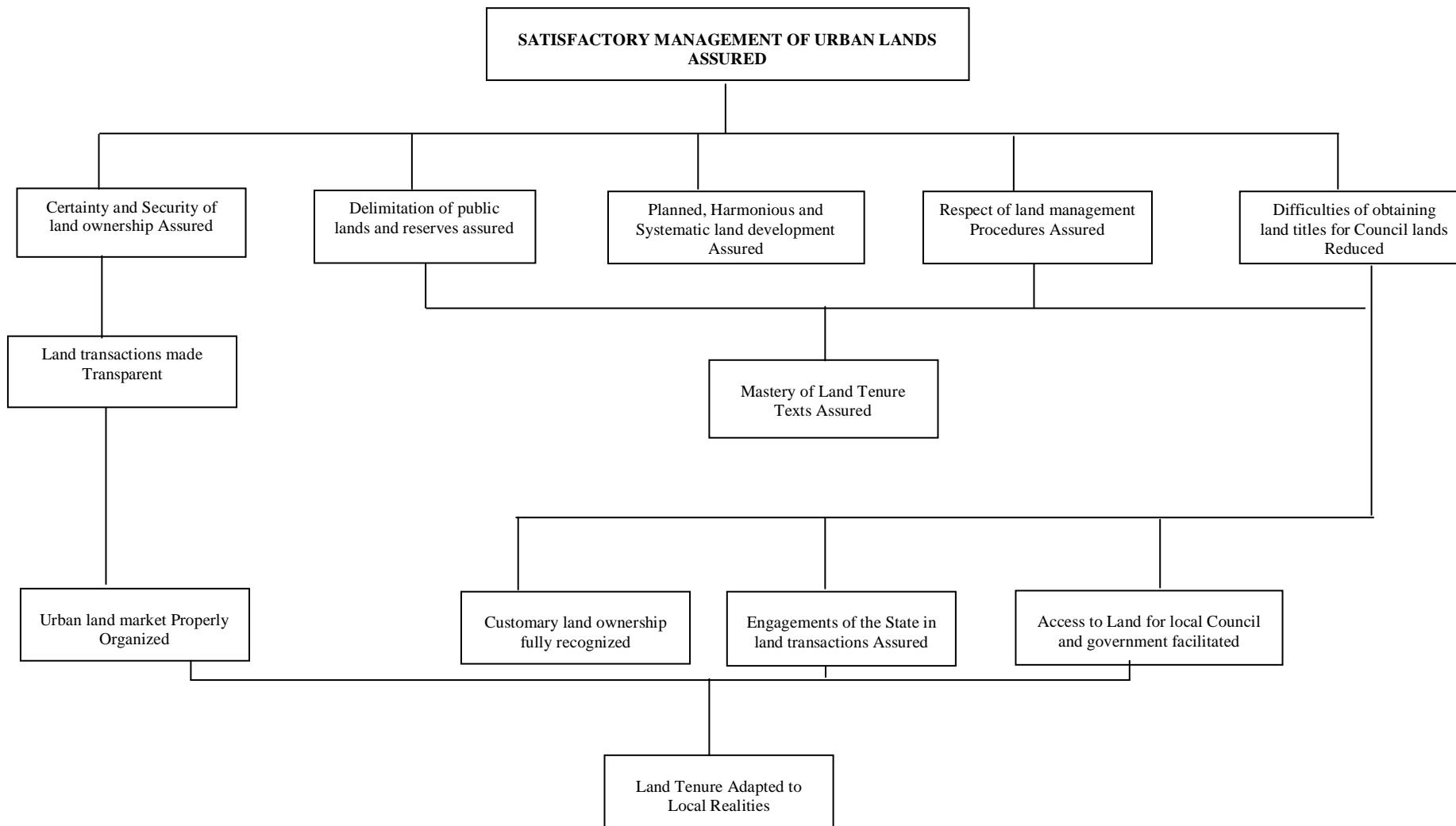
**OBJECTIVE 7**



**OBJECTIVE 8**



**OBJECTIVE 9**



## **PART III: PLANNING PROPOSALS**

## CHAPTER FIVE: URBAN SPATIAL STRUCTURE

### 5.1 The Spatial Structure of Wum Town

#### 5.1.1 The Problem

Wum Town has the following problems of spatial structure:

- An unstructured urban fabric;
- Uncontrolled urban sprawl;
- No basis for providing services and infrastructure to match growth and expansion;
- Lack of a basis for assessing the need and demand for services;
- A basis for a harmonious organisation of land use and development is lacking;
- Difficulties of monitoring the growth and spatial evolution of the town.

#### 5.1.2 Objectives

The proposed spatial structure aims at:

- Structuring the urban fabric to make the provision of services and infrastructure more rational;
- Controlling urban sprawl;
- Facilitating the monitoring of the growth and spatial evolution of the town.

The basic components of Urban Spatial Structure are the spatial units which are shaped by the two organising concepts of threshold population and range of goods and services which are briefly discussed below.

### 5.2 Elements of spatial structure

#### 5.2.1 Urban units

Urban units in the proposed structure have the elements indicated in Table 5.1.

Table 5.1: Proposed Units and Their Threshold Populations

Level	Spatial Unit	Threshold Population
1	Block	11 - 100
2	Neighbourhood	101 - 500
3	District	501 - 2 000
4	Small Town	2 001 -10 000
5	Big Town	10 001 -100 000
6	City	Greater than 100 000

#### 5.2.2 Concept of Urban Spatial Unit

The town is broken down into districts, each district broken down into neighbourhoods, each neighbourhood into blocks and each block is made up of individual plots, then isolated dwellings. Each unit shall have a centre providing a range of goods and services for a corresponding threshold population. In this spatial structure, Wum Town is now a big town from projections based on the Third General Population and Housing Census of 2005, with a population size of over 58 706 persons.

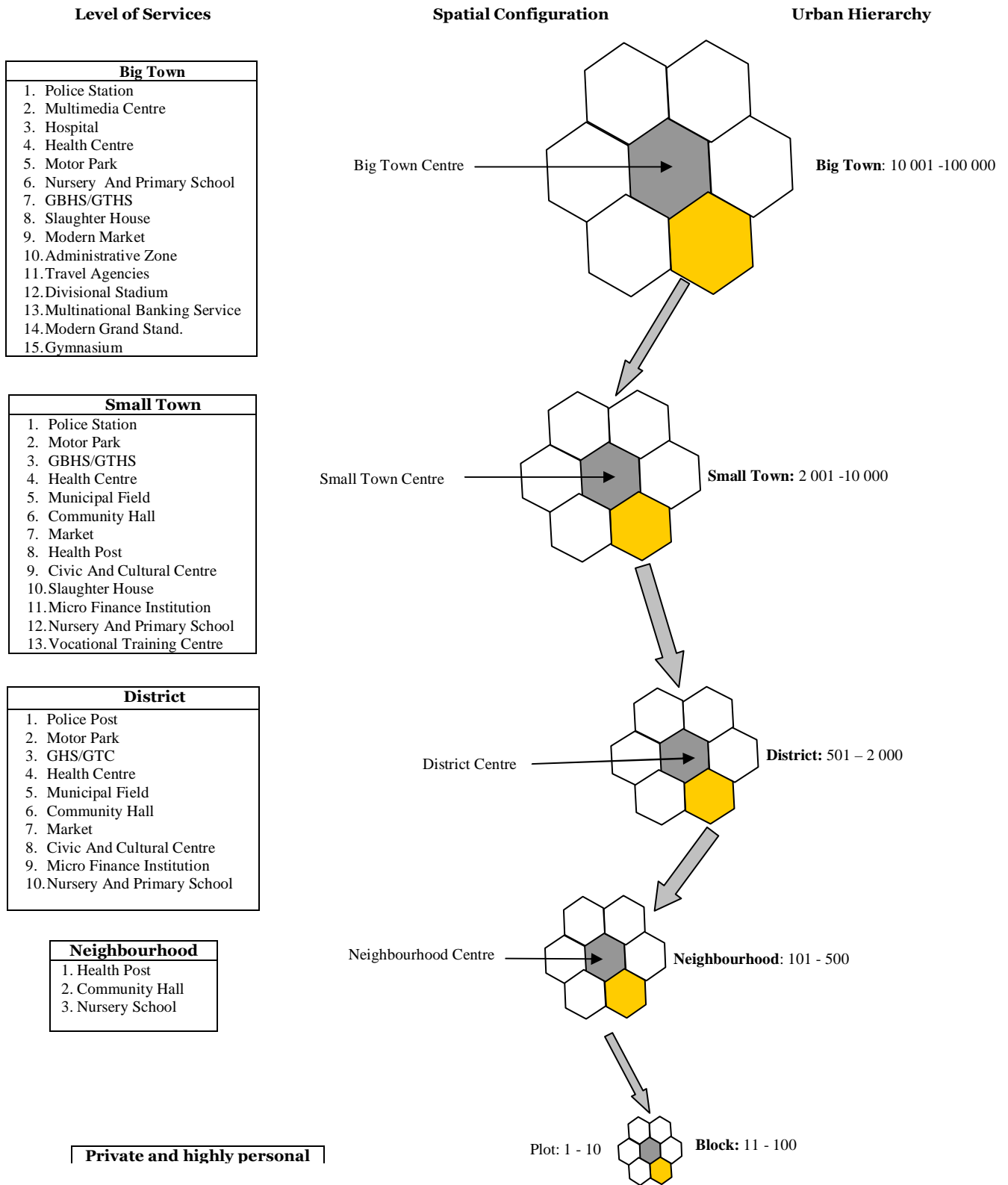


Figure 5.1: Concept of Urban Spatial Unit

### 5.3 Hierarchy of Service Centres

#### 5.3.1 Concept of Threshold Population

Each good or service has a minimum level of population needed to support the provision or supply of that good or service. That population is what is referred to as the threshold population. Since goods and services have different threshold populations, those that require smaller populations to support their supply are of

lower order; those that require larger populations to support them are of higher order. In other words, there are lower or higher order goods and services; or a hierarchy of goods and services.

There is also a hierarchy of spatial units, or central places, or service centres, to supply goods or services best supplied by central places.

### **5.3.2 Concept of Range of Goods or Services**

The range of a good or service is the farthest distance that a dispersed population is willing to travel in order to obtain that good or service. Ordinarily, people would walk to the nearest opportunity that offers a good or service that they need. They would patronise the nearest service centre offering it.

### **5.3.3 Roles of Threshold and Range**

The roles of the threshold population and the range of goods and services lies in their working together in a hierarchy to determine the best locations for goods and services vis-à-vis the dependent population.

## **5.4 Proposed Urban Spatial Structure**

With a population over 58 000, Wum Town is a big town. The town is expected to offer economic, social and cultural services and opportunities to its inhabitants who should move to the town centre to avail themselves of the goods and services provided at the scale and level of the whole town. Based on our concept, it is divided into districts, neighbourhoods, and blocks. Seeing the Ring Road (National 11) - which runs through the town from southwest to north-east - as a barrier, Wum Town is broken into two parts - the western and eastern parts. This must be seen as a barrier to the free development of the town. (See **Map N° 5.1**).

### **5.4.1 Facilities and Services**

The facilities and services to be provided at each of the levels of service centre in the town are mentioned hereunder.

#### **5.4.1.1 Town**

The facilities and services to be provided at the level of the town include:

- A town market and motor park;
- A town shopping centre;
- A district hospital;
- A town stadium;
- A town park and garden;
- Public offices at the level of subdivision;
- A post office.

#### **5.4.1.2 District**

The services and facilities to be provided within each district include:

- A district market and motor park;
- A district shopping centre;
- A government secondary grammar school;
- A government secondary technical school;
- A district postal agency;
- A district police station;
- A district park and garden.

#### **5.4.1.3 Other levels**

Each residential district should be broken down into residential **neighbourhoods** or quarters. The neighbourhood should have a service centre composed of government primary school, a neighbourhood grocery and shops, a playground and community hall.



## 5.5 Urban Spatial Nomenclature and Street Furniture

### 5.5.1 Elements of Urban Spatial Nomenclature and Street Furniture

The main elements of urban spatial nomenclature include:

- The names of places and streets;
- The numbering of plots and buildings;
- The control of all installations within the rights-of-way for public roads.

Street furniture are any fixtures within or outside the public road reserve which desirably or undesirably influence the use of transit passages.

The components of urban street furniture include:

- Traffic markings, signs, guard rails
- Bill boards and sign boards
- Street landscaping
- Installation of public utilities: telephone booths, post boxes, fire hydrants, standpipes, street lights and electric lines, public utility inspection chambers
- Erection of public and private structures: canteens, kiosks
- Control of front fences.

### 5.5.2 Proposals for Urban Spatial Nomenclature and Street Furniture

The principles for spatial nomenclature shall include: -

#### a) Nomenclature of roads

- Highways
- Boulevards
- Roads
- Streets
- Walkways

#### b) Naming of Places

- Each district shall derive its name from the local name of its service centre;
- Each neighbourhood shall derive its name from the local name of the area;
- Major roads shall derive their names with reference to their hierarchical destinations from the centre of each spatial unit;
- Streets and minor roads shall derive their names from events, activities and personalities approved by the Council;
- Clusters within each neighbourhood shall be numbered in serial order and clockwise;
- Blocks shall be numbered from North to South and from West to East;
- Plots and buildings shall be numbered in sequence in odd and even numbers on either side of the street or road: odd numbers on the left, even numbers on the right.

### 5.5.3 Integration of the Wum Central Master Plan Proposals

The September 2004 Master Plan for Wum was not approved for implementation. This notwithstanding, it had some technical strengths: its proposals for street names, for example. It is suggested that the names which it used for roads and streets should be integrated into the system when the ideas of this Summary Urban Development Plan will be detailed out for implementation.

## CHAPTER SIX: PROPOSED LAND USE PLAN

### 6.1 The Proposed Land Use Plan

Land use planning takes into consideration the affinity of land use activities. This is an attempt to ensure orderliness in land uses and to help correct and improve utilisation of land through complementarity. This will constitute the basis for Council decision and policy making. The proposed land use plan shows the various proportions of land and their positional relationship to neighbouring land uses.

#### 6.1.1 Criteria for Preparing the Land Use Plan

The proposed land use plan for Wum is elaborated taking into consideration the following criteria:

- a) To create a physical and social environment conducive to the functioning of a modern planned urban centre;
- b) To set aside areas that can be occupied and built upon from zones to be protected from human activities;
- c) To enhance acceptable separation of land uses in a manner that favours land improvements and promotes interaction and social integration of the population;
- d) To conserve and improve the current land uses;
- e) To reduce conflicts and incompatibilities associated with unplanned land use activities;
- f) To promote a balanced mix of land uses capable of minimizing commuting time losses;
- g) To set in motion the gradual and progressive mix of land uses and intensities in the bid to accommodate the socio-economic and cultural evolution of the local population;
- h) To achieve balanced development for planned residential areas that form an integral and visually attractive cityscape;
- i) To produce living environments that are responsive and compatible with the needs and living patterns of residents;
- j) To significantly increase housing stock qualitatively and quantitatively;
- k) To improve quality of existing housing and finish incomplete housing projects.

The proposed land use plan recommends the ways by which the population can occupy land and make rational use of resources found on the land.

### 6.2 Land Use Categories

Ordinarily, land use is classified into the following categories:

- Residential:
  - Low density residential area,
  - Medium density residential area,
  - High density residential area;
- Commercial and business:
  - Retail,
  - Wholesale,
  - Services;
- Public and semi-public:
  - Government and semi-government offices,
  - Educational establishments,
  - Religious institutions,
  - Health institutions,
  - Leisure;
- Industrial:
  - Light industry,

- Extracting industry,
- Food products;
- Transport and communications:
  - Roads,
  - Motor parks,
  - Communications;
- Mixed land use:
  - Conforming,
  - Non-conforming uses;
- Vacant land:
  - Agriculture. (see **Map 6.1**)

### 6.2.1 Residential land use

The main feature of any residential area are dwelling or housing units. The level of quality of housing units is a function of the prevalence of basic and superior living standards within the dwelling unit, as well as the amount of complementary services, housing utilities and amenities, including health, education, shopping, working, recreation, etc.

#### 6.2.1.1 Residential land use elements

The elements of residential land use in Wum include:

- High density housing: for low-income households;
- Medium density housing: for medium income households;
- Low density housing: for high-income households;
- Mixed residential/commercial housing: for households in transition from medium to high-income households.

##### 6.2.1.1.1 Evolution of housing needs

Changes in housing needs are usually a function of the evolution witnessed or one to be influenced by future demographic trends. Field survey of the population of the town revealed that its population in 2011 was 57 430. Considering the National Annual Growth Rate of 2.9, projections of the future population of Wum and related housing needs are as per Table 6.1 here-below.

Table 6.1: Population Projections and Related Housing Needs

Year	Growth rate	Population	H/h Size	Households	H/h per D.U.	D.U. required	Existing D.U. 2011	D.U. needed
2011	2.9	<b>57430</b>	5.5	10442	2	5221	3806	<b>1415</b>
2012	2.9	<b>58706</b>	5.5	10674	2	5337		<b>116</b>
2013	2.9	<b>60194</b>	5.5	10944	2	5472		<b>135</b>
2014	2.9	<b>61718</b>	5.5	11221	2	5611		<b>139</b>
2015	2.9	<b>63280</b>	5.5	11505	2	5753		<b>142</b>
Total								<b>1947</b>

Source: 3<sup>rd</sup> GPHC BUCREP 2005; *projection CAMGIS 2012*

Table 6.1 shows the estimated evolution of housing needs from 2011 to 2015. Results of diagnosis carried out in 2012 by CAMGIS in the housing sector in Wum Town puts the existing stock of both high and medium quality dwelling units (which are invariably classified in Table 6.2 below as detached, semi-detached or official residence) at 73.4%, whereas the rest, 26.6% of this stock is substandard.

From the same survey, 60.6% of sampled households are inhabited by at least 3 persons and at most 8 persons. This gives an average household size of 5.5 persons and an average of 2 households (H/h) per Dwelling Unit (D.U.), a total of 3806 dwelling units of good quality exist and at least 1947 dwelling

units ought to be realized to satisfy the total housing needs of the population over this period. Clearly therefore, Table 6.1 shows that a cumulative total of 1666 new dwelling units must be constructed by 2013; and subsequently an annual average of 141 new dwelling units for the two remaining years; to cope with the projected population increases.

Table 6.2: Housing Types in Wum Town

S/ No.	Type of House	Number of Units	Percentage
1	Detached Housing	224	44.7
2	Semi Detached Housing	141	28.1
3	Official Residences	3	0.6
4	Bungalows	68	13.6
5	Blocks of Flats	53	10.6
6	No response	12	2.4
	<b>Total</b>	<b>501</b>	<b>100</b>

Source: CAMGIS Survey, 2012

The 1947 new dwelling units needed from 2012 to 2015 are distributed according to income groups as per Table 6.3 here-below.

Table 6.3: Distribution of Housing Needs by Income Groups: 2012-2015

Item	Housing category	%	Dwelling units
01	Low-income housing	60	1168
02	Medium income housing	25	487
03	High income housing	15	292
	<b>Total</b>	<b>100</b>	<b>1947</b>

Source: CAMGIS 2012

#### 6.2.1.1.2 Spatial distribution of housing needs

The pattern of spatial distribution of housing needs shall correspond to the pattern of distribution of population by income levels, see Table 6.3 above.

#### 6.2.1.1.3 Supply of land for housing horizon 2015

Table 6.7 below shows the corresponding land needs to cope with the annual increases in demand for quality housing from 2013 to 2015. A total of 86,155 hectares of land shall be needed over this period to cope with the overall increase in housing needs. On an annual basis between 2,336m<sup>2</sup> to 14,300 hectares of land shall be required to cope with housing needs.

Table 6.4: Demand for Housing Land by Income Group from 2013-2015

Item	Category of housing	Dwelling Units	Average plot size (m <sup>2</sup> )	D.U. per plot	Land needed (m <sup>2</sup> )	Land needed (ha)
02	Low-income housing	1168	400-800	2	350,400	35,040
03	Medium-income housing	487	800-1000	2	219,150	21,915
04	High-income housing	292	> 1000	1	292,000	29,200
	<b>Total</b>	<b>1947</b>			<b>861,550</b>	<b>86,155</b>

Source: Simulation of PNGE, 1999 and CAMGIS, 2012.

#### 6.2.1.1.4 Supply of Housing Land within the Planning Area

The total planning area of Wum Town under the present project covers a surface area of 7 494 hectares. The land surface area reserved for residential housing development within the context of this PSU is

805,61 hectares. The distribution of residential housing land is in conformity with income levels, which is equally a reflection of housing quality as per Table 6.8 here below.

Table 6.5: Supply of Housing Land within the Planning Area

Housing quality	(%) land Residential	Surface area (m <sup>2</sup> )	Surface area (ha)
High density	1.41	1 054 841	105,48
Medium density	5,58	4 183 566	418,36
Low density	3,76	2 817 703	281,77
Total	10.75	8 056 110	805,61

Source: CAMGIS, 2012

### 6.2.1.1.5 Housing Improvements

#### 6.2.1.1.5.1 Elements of Housing

- a) The house;
- b) Housing environment;
- c) Services in the house;
- d) Access to land for housing;
- e) Access to housing credit;
- f) Access to technical assistance;
- g) Materials for housing constructions;
- h) Processes and procedures for housing;
- i) Stock of houses.



Photo 6.1: Low Grade Housing

### 6.2.1.2 Housing Improvement Programme

In the following paragraphs, consideration is given to the various actions to be taken to improve the quality of housing in Wum Town. (See Map 6.2)

- a) Infilling of vacant building plots and upgrading of existing buildings;
- b) Development of layout for the eventual settlement of displaced persons;
- c) Upgrading of existing quality housing stock;
- d) Restructuring of unplanned development in residential areas;
- e) Rehabilitation of dilapidated houses.

#### **6.2.1.2.1 Infilling of Vacant Housing Plots**

Several vacant and partially developed plots are found within the town. These plots should be identified and developed to make optimum use of land and existing public infrastructure and services.

#### **6.2.1.2.2 Development of layout for Resettlement**

The proposed layout should be developed in conformity with the requirements for development of sites and services. The layout, apart from being available to others, shall be used to accommodate persons displaced in the process of restructuring unplanned development in residential areas. The procedures for developing the layout shall involve:

- a) Mobilization of funds for creation of sites and services on the layout;
- b) Selection and acquisition of the layout;
- c) Surveying, planning and laying out of sites and services;
- d) Developing of the sites and services;
- e) Allocation of plots to those who can afford to develop them;
- f) Controlling of development and construction activities;
- g) Progressively providing public and community facilities;
- h) Managing and exploiting the sites and services.

#### **6.2.1.2.3 Upgrading of existing quality of housing stock**

A number of fairly good houses exist in Wum Town, but they do not have the necessary and basic amenities expected in a high grade housing unit: a steady supply of water and electricity, good drainage, gardens, etc.

#### **6.2.1.2.4 Restructuring of unplanned development in residential areas**

Housing areas identified for restructuring shall be planned and redeveloped, ensuring that a road network of different hierarchies, water and electricity supply networks, service centres, open spaces, etc., are provided.

#### **6.2.1.2.5 Rehabilitation of dilapidated houses**

The rehabilitation of dilapidated, abandoned and uncompleted houses within the existing urban area should involve:

- a) Identification of the houses;
- b) Provision of technical and financial assistance to concerned land owners;
- c) Control of the rehabilitation process;
- d) Imposition of a tax on owners of undeveloped land or dilapidated structures.

### **6.2.2 Commercial land uses**

Based on the closeness of Wum Town to the border, it has many activities, so an attempt has been made to boost business activities. In this regard 3% of the town has been devoted to commercial land use. The proposed location of commercial areas ensures convenience, proximity to residential areas and to the thoroughfare.

The spaces demarcated are proposed for:

- a) Markets;
- b) Central Business District;
- c) Services.

### **6.2.3 Urban open spaces**

- a) Natural reserves;

- b) Parks and Gardens: are proposed to be at proximity to residential areas for convenience purposes;
- c) Town greens: are proposed by exploiting the advantages of the natural landscape;
- d) Protected areas.

#### **6.2.4 Sports and recreational facilities**

- a) Children playgrounds;
- b) Football fields.

#### **6.2.5 Social welfare facilities**

- a) Youth centre;
- b) Women's empowerment centre;
- a) Handicapped.

#### **6.2.6 Industrial zones**

Proposed industrial area covers 5% of the total urban land. The proposed sites ensured large space to accommodate industrial activities in terms of space demand for manufacturing- buildings, storage, loading and offloading. The plan also ensures greater accessibility to transportation in and out of the industrial zone. The plan also ensures adequate isolation from residential areas.

#### **6.2.7 Transportation**

The proposed road network covers 15% of the urban land and ensuring maximum accessibility to all activity centres.

#### **6.2.8 Educational facilities (public, private)**

The proposed schools are in line with government policy of basic education to all citizens. The numbers of the schools proposed are based on the threshold population that can support various streams. The existing and proposed population distributions as well as the existing and proposed land use situations have also been taken into account. The distributions and locations ensure minimum walking distances for pupils and students from their homes to schools. The facilities proposed include:

- Nursery schools;
- Primary schools;
- Grammar schools;
- Technical colleges.

#### **6.2.9 Public health facilities**

- a) District Hospital;
- b) Health Centres.

#### **6.2.10 Public Utility Networks and infrastructure**

- Drainage networks;
- Sewage networks and infrastructure;
- Energy (electricity) supply networks;
- Telecommunication networks and infrastructure;
- Solid waste management networks;
- Water supply networks.

#### **6.2.11 Public Offices**

The location of proposed public offices is made to meet the functions and requirements of various offices in Wum.



### 6.3 Land Use and Space Allocation

Table 6.6 shows the allocation of space by land use type within the planning area.

Table 6.6: Allocation of Space by Land Use Type within the Planning Area

Land Use Category	Total Area (Hectares)	%
Residential	1538.9	60
Commercial	76.9	3
Industrial	128.2	5
Public Services	153.9	6
Open Spaces and Play grounds	76.9	3
Roads	384.7	15
Protected areas	205.2	8
<b>Total</b>	<b>2564.91</b>	<b>100</b>

Source: CAMGIS 2012

**Plan 6.3** shows the pattern of urban land use in Wum. The proposed pattern of urban land is conceived to:

- Ensure a balanced allocation of land for low, medium and high income groups for housing;
- Ensure a balanced spatial distribution of land uses which should enable households of different socio-economic groups to settle in any direction or part of the town;
- Provide the possibilities for households from different socio-economic groups to share services and facilities; and
- Reduce the tendency of ethnic and cultural clustering in favour of socio-cultural integration.

### 6.4 Urban development alternatives

As a service centre, the function of a town centre is to be a focus of human activities: administrative, economic, social and even cultural activities. The location is to serve the whole town and the adjoining settlements within its sphere of influence.

Development options or alternative development plans will be based on the following principles:

- Controlled agglomeration;
- Consolidated urban development;
- Improved networks, infrastructure and existing facilities,
- Integration of the various spatial units.

#### 6.4.1 Variants

Two possible development alternatives or options have been proposed, namely Alternative A and Alternative B. Each alternative has been evaluated for its strengths against a set of criteria; from the scorings, a preferred alternative has been established.

##### 6.4.1.1 Alternative A: a uni-centred urban area

In this option, the town of Wum develops around one hub, or centre from which a lot of things radiate. In this case many things originate and move outwards, just like a lot of other things converge on it. This mono centre supplies all the goods and services needed at various levels of the demand for goods and services. This option has its advantages; just as it has its disadvantages.

##### 6.4.1.2 Alternative B: a multi-centred urban area

For this option, Wum Town develops around a main centre; around it are many smaller centres or sub centres acting as growth poles in their areas of influence. These centres are smaller service centres or central places supplying goods and services best suited for supply at their level.



### 6.4.1.3 Evaluation of alternatives

The following criteria were used to evaluate the alternatives for the urban development of Wum:

- The functionality of the alternative plan;
- The profitability of the alternative plan;
- Feasibility of implementation;
- The responsiveness to current and future needs and trends;
- The prevention of future problems and adverse impacts;
- The social impact;
- The economic impact;
- The environmental impact of the alternative plan;
- The effectiveness of land management.

The evaluation scale used ranges from 1 to 3, as seen in Table 6.7 below.

Table 6.7: Evaluation Scale

Decision	Scale
Low	1
Moderate	2
High	3

Table 6.8: Comparative Analysis

Criteria	Alternative	
	A: Uni-Centred Urban Area	B: Multi-Centred Urban Area
Functionality of the plan	1	2
Profitability of the plan	1	3
Feasibility of implementation	2	3
Responsiveness to current and future needs and trends	1	2
Prevention of future problems and adverse impacts	1	3
Social impact	2	3
Economic impact	2	3
Environmental impact of the plan	2	2
Effectiveness of land management	2	3
<b>Total</b>	<b>14</b>	<b>24</b>

Source: CAMGIS 2012

### 6.4.2 Preferred Alternative

The scores are 14 and 24 respectively for a uni-centred as opposed to a multi-centred urban area. The option to have many service or growth centres is preferred to the option that centralises (and congests!) everything on the present centre.

### 6.4.3 Components of the CBD

The major land uses of the CBD shall include:

- ⇒ A central commercial district which accommodates the central market,
- ⇒ Super markets,
- ⇒ Shops,
- ⇒ Private offices,
- ⇒ Financial services and catering services.

#### **6.4.3.1 Elements of the Town Cultural Centre**

- a) A community hall;
- b) A public library;
- c) A park and garden;
- d) An art theatre;
- e) A museum;
- f) Open space;
- g) A sports complex;
- h) A creativity centre;
- i) A multi-media telecentre.

### **6.5 Land Use Management Plan**

#### **6.5.1 Elements of Land Use**

The elements of land use to be managed include:

1. Area of land;
2. Human activities;
3. Means of movement;
4. Natural environment to be protected.

#### **6.5.2 Urban Land Development**

The elements of urban land development include:

- ❑ The total area of land to be developed over a specific period;
- ❑ The area of land developed for different land uses;
- ❑ The number of developed plots for housing low, medium and high income households;
- ❑ Servicing of sites for development with:
  - Roads,
  - Drainage,
  - Water supply,
  - Energy (electricity) supply,
  - Sewage installations;
- ❑ Subdivision of land into plots;
- ❑ Development of sites and plots;
- ❑ Provision of public and community facilities.

## CHAPTER SEVEN: PUBLIC AND COMMUNITY FACILITIES

### 7.1 Public and Community Facilities

Public and community facilities are the basic urban services provided for the general interest of the population, which have specific locations and sites.

### 7.2 Components

The main components of these facilities include:

1. Educational facilities;
2. Health facilities;
3. Social welfare facilities;
4. Civic and cultural facilities;
5. Urban markets;
6. Urban parking facilities;
7. Sports and recreational facilities;
8. Public and community halls.

### 7.3 Location of Public and Community Facilities

#### 7.3.1 Educational Facilities

Table 7.1 represents the standards used in planning the future provision of government educational facilities in Wum. This is done with the understanding that the government has the primary responsibility for the education of its citizens. Denominational and lay private providers offer alternative types of education to those who can afford them and complement the government's contributions. **Map 7.1** indicates the locations of some major public and community facilities in Wum Town.

Table 7.1: Proposed Standards for Public Educational Facilities

Item	Public Educational Facilities	Level of Provision	Population Threshold	Catchments Radius	Space Standards
01	Day care centres	Block	11 - 100	500m	0.5hectares
02	Primary /Nursery schools	Neighbourhood	101 - 500	1.0km	2.0 hectares
03	General Grammar Schools	District	501 – 2 000	2.5km	5.0 hectares
04	Technical Secondary Schools	District	501 – 2 000	2.5km	5.0 hectares
05	High Schools	Town	2 001 - 10 000	2.5km	5.0 hectares

Source: CAMGIS 2012

#### a) Day Care Centres

Presently, there are two day care centres (SHADACC and Jesus Cares Crèche) existing in Wum. This is highly insufficient. The growth of the town and demands on the population for alternative ventures and activities will necessitate the opening of more day care centres in the town to provide care for the children and liberate some time for parents to carry out other activities. Thirteen day care centres are proposed: one in each of the eleven villages that make up Wum and two in the new residential layout. Additionally, it is recommended that each public office makes provision for an equipped crèche to accommodate the needs of nursing mothers whose babies require more attention and especially more frequent breastfeeding than the daily two hours nursing breaks can meet.

#### b) Nursery/Primary schools

Ordinarily, the standards in Table 7.1 above would be used to estimate the gap and projected needs for nursery schools in Wum as from 2012 to 2015. However, the proposed schools are based on the fact that

nursery schools should be provided within walking distance without crossing major roads to school for 3-5 years old children. As such, a nursery school should have a small pupil/teacher ratio and small classroom sizes. Based on the present spatial distribution of population and the distribution pattern of schools, 12 nursery schools are proposed. The government should provide at least these 12 while religious bodies and lay private establishments should complement. This bridges the gap, provides a choice and makes it possible for the poor to have access to affordable nursery education.

For government primary schools in Wum, there is no need for them now. However, when the Council Layout is developed in the next few years, a government primary school will be needed within the residential neighbourhood.

**Map 7.2** shows the existing and proposed locations of government nursery and primary schools and their catchment areas by 2015.

**c) General Grammar School and high schools**

Given the present distribution pattern of secondary schools, there is no need for more secondary schools before 2015. The present schools can certainly absorb the effects of needs arising from population growth and redistribution in the next few years. That notwithstanding, more general and technical schools shall be required when Wum town must have grown more to support the construction of additional schools. **Map 7.3** shows some of the proposed government general and technical secondary schools.

**d) Technical high school**

Currently, there is one government technical high school. Beyond 2015, another technical high school will be required for Wum. By then the town would have grown to support more than one technical high school.

**7.3.2 Public Health Facilities**

Table 7.2 shows the recommended standard for the provision of health facilities.

Table 7.2: Proposed Standards for Health Facilities

Item	Level Of Health Facility	Level Of Provision	Population Threshold	Catchment Radius	Space Allocation (Hectares)
01	Health Centres	District	501 – 2 000	2.5km	2 hectares
02	District Hospital	Town	2 001-10,000	4.0km	5 hectares

Source: CAMGIS 2012

**Map 7.4** shows the existing locations and the proposed locations of health facilities and their catchment areas.

In future, residents of Wum should walk to the nearest government health centre and their district hospital if projected demands are met. Six health centres and two health posts are proposed to be created as shown on Map 7.4.

**7.3.3 Urban Markets**

Table 7.3 shows proposed standards for planning and developing urban markets in Wum Town.

Table 7.3: Proposed Standards for Planning and Developing Urban Markets

Item	Markets And Shopping Facilities	Level of Provision	Population Threshold	Catchments Radius	Space Standards
01	Corner Stores	Block	11-100	500m	200m <sup>2</sup>
02	Neighbourhood shops	Neighbourhood	101 - 500	1.5km	500m <sup>2</sup>

Item	Markets And Shopping Facilities	Level of Provision	Population Threshold	Catchments Radius	Space Standards
03	District markets and shops	District	501 - 2 000	2.5km	1.0 hectares
04	Markets	Town	2 001 - 10 000	2.5km	1.0 hectares

Source: CAMGIS 2012

This plan provides a hierarchy of urban markets accompanied by shopping areas within each service centre (see land use plan and **Map 6.1**).

- A modern market is proposed to be constructed in the southern district of Wum. Neighbourhood shops should be created progressively in the Northern and southern districts of Wum.
- A modern slaughter house at the New layout area
- A cattle market has also been proposed in the neighbourhood of former WADA, to improve on the situation of this commercial sector in Wum.

### 7.3.4 Urban Parking Facilities

#### 7.3.4.1 Elements

The elements of urban parking facilities include:

- a) Location;
- b) Sitting;
- c) Availability of land;
- d) Planning and layout of site;
- e) Services and utilities available;
- f) Security.
- g) Management

#### 7.3.4.2 Plan of Urban Parking Facilities

Urban parking facilities usually include:

- a) Lorry parks;
- b) Town parks;
- c) District parks.

In addition, on-street, off-street and private passenger parking facilities should be provided at strategic but regulated locations and sites. All developed facilities should provide the minimum parking facilities for its customers and workers within their lots. Existing and proposed parking facilities have been presented on map 6.1 on land use plan.

The existing motor park needs to be upgraded, while another motor park has been proposed in the new layout region.

### 7.3.5 Sports and Recreational Facilities

There is a hierarchy of sports and recreational facilities corresponding generally with the hierarchy of service centres. Table 7.4 shows the hierarchy of sports facilities to be provided at each level of urban spatial structure.

Table 7.4: Proposed Standards for Sports and Recreational Facilities

Item	Sports and Recreational Facilities	Level of Provision	Population Threshold	Catchment Radius	Space Standards
01	Toddlers' playground	Block	11-100	50m	100 m <sup>2</sup>
02	Infants' playground	Block	11-100	200m	200 m <sup>2</sup>
03	Football pitch	Neighbourhood	101 - 500	1.0km	6 000 m <sup>2</sup>

Item	Sports and Recreational Facilities	Level of Provision	Population Threshold	Catchment Radius	Space Standards
04	Neighbourhood parks and gardens	Neighbourhood	101 - 500	500m	1.0 hectare
05	District Parks and gardens	District	501 - 2 000	500m	1.0 hectare
06	Town park and garden	Town	2 001 - 10 000	500m	1.0 hectare

Source: CAMGIS 2012

Structures which take care of the various categories of the population should have some of the above facilities around them. For example, around the day care centres, there should be a toddlers' playground or infants' playground.

It is recommended that the municipal stadium be rehabilitated and upgraded for all-season use.

### 7.3.6 Proposed Standards for Public Libraries and Creativity Centres

Table 7.5 shows the standards for providing public and community libraries.

Table 7.5: Proposed Standards for Public Libraries and Creativity Centres

Item	Public Libraries	Level of Provision	Population Threshold	Catchment Radius	Space Standards
01	Neighbourhood Library	Neighbourhood	101 - 500	500m	80-100m <sup>2</sup>
02	District Library	District	501- 2000		1000 m <sup>2</sup>
03	Town Library	Town	2001 -10000		2000 m <sup>2</sup>

Source: CAMGIS 2012

One creativity centre, which is a multi-media centre, to be located in the centre of the town, is proposed for Wum. Creativity centres are the technological counterparts of public libraries. They serve as demonstration centres for the public to get acquainted with rapidly evolving technology. Properly equipped, they also give opportunities for bright talents to be inventive and creative in different aspects of technology.

### 7.3.7 Proposed Standards for Public and Community Halls

Table 7.6 shows the hierarchy of public and community halls provided at different levels of the urban structure.

Table 7.6: Standards for Public and Community Halls

Item	Public and Community Hall	Level of Provision	Population Threshold	Catchment Radius	Space Standards
01	Meeting Room	Block centre	11-100	200m	20-40m
02	Neighbourhood hall	Neighbourhood centre	101 - 500	500m	100-120m
03	District Community Hall	District centre	501 - 2 000		
04	Town Community and Cultural Centre	Town centre	2 001 - 10 000		

Source: CAMGIS 2012

### 7.3.8 Other Public and Community Facilities

Elements to consider here include women's centres, youth centres, social centre, cultural centres and palaces.

### **1. Women's Empowerment Centre**

Rehabilitation of the dilapidating structures of this institution and equipment of the centre are an absolute necessity to its proper functioning.

It is recommended that a structure for the Delegation of Women's Empowerment and the family office be constructed and equipped.

### **2. Multipurpose Youth Empowerment Centre**

While the furnishing of the structure needs to be completed, the authorities need to harmonise their ideas about the functioning of the Multipurpose Youth Empowerment Centres of the Ministry of Youth and Civic Education and the Multi-Purpose Telecentres of the Ministry of Post and Telecommunications.

### **3. Social Centre**

The social centre is currently housed in the Delegation of Social Affairs. The structure for this institution needs to be completed, equipped and made operational.

### **4. Cultural Centres**

There is absence of the Delegation of Culture in Wum. Construction of the Wum Cultural Complex at courtyard to include a community hall could house even this delegation, a cultural centre that could house a museum; all of these are necessary for the cultural development of Wum.

### **5. Palaces**

All palaces need to have their structures upgraded or entirely new structures constructed by the communities concerned.

## **7.3.9 Tourism and Leisure**

### **1. The Divisional Delegation of Tourism**

This delegation currently operates in rented premises. A permanent structure to house this delegation is proposed.

### **2. Hotels and catering facilities**

In spite of efforts being made by some hotel establishments, the existing hotels, inns and catering establishments are substandard and inadequate. It is recommended that at least a befitting hotel, conforming to the sector norms, be constructed in Wum Town. The challenge could be met by private or government agencies or both.

## CHAPTER EIGHT: URBAN NETWORKS AND INFRASTRUCTURE

The components of urban networks and infrastructure include:

- Transportation networks and infrastructure;
- Drainage networks and structures;
- Water supply networks;
- Electricity supply networks;
- Sewage systems;
- Communication networks.

### 8.1 Proposed Hierarchy of Urban Roads

The proposed roads are meant to ensure maximum accessibility to all functional urban units and to ease movement of people, goods and services within the town.

As can be seen on **Map 8.1**, the elements of the proposed hierarchy of urban roads include:

#### 1. Primary (National Road N11)

These distribute traffic in and out of town and districts. This also play the role of an arterial road.

#### 2. Secondary distributor Roads

Secondary distributors, take traffic from the primary roads and distribute it to tertiary and access roads.

#### 3. Tertiary distributors

Tertiary distributors, distribute traffic within neighbourhoods or quarters.

#### 4. Access Roads

Access roads will be provided during detailed layout plans and designs.

#### 5. Walkways

#### 8.1.1 Planning objectives of proposed hierarchy

The specific planning objectives of the proposed hierarchy of urban transportation networks include:

- Saving travel time within and through the town;
- Reducing cost of travel, moving goods and obtaining services;
- Using road structures and designs as elements of urban landscape;
- Minimizing road accidents.

#### 8.1.2 Planning principles used

To achieve these objectives the following planning principles were used:

- Providing a choice of routes to service centres and activity areas;
- Using major roads to separate distinct activity areas;
- Ensuring that each level in the hierarchy of roads performs specific functions without interference;
- Ensuring the balanced distribution of each level in the hierarchy of roads within the town.

Table 8.1: Distribution of Road Networks

No	Designation	Lengths (kilometres)		
		Existing (km)	Proposed (km)	Total (km)
2	Primary (N11)	17,52		<b>17,52</b>
3	Secondary	38,47		<b>38,47</b>



No	Designation	Lengths (kilometres)		
		Existing (km)	Proposed (km)	Total (km)
4	Tertiary	16,28		<b>16,28</b>
5	Access	11,58	53,20	<b>64,78</b>
<b>TOTAL</b>				<b>137,05</b>

Table 8.2: Indices of Road Networks

N°	Road type	Length (Km)	Percentage	Road indices	
				Population/ Km	Surface area (km <sup>2</sup> )/km
1	Primary road (National, N11)	17.527	12.79	2282	4.26
2	Secondary Distributor roads	<b>38.47</b>	28.07	1040	1.94
3	Tertiary Distributor roads	<b>16.28</b>	11.88	2457	4.59
4	Access roads	64.78	47.27	618	1.15
Total and average ratio		137.05	100	292	0.55

Source: CAMGIS 2012

Size of population: 40,000 inhabitants

Area of the town: 74.75 km<sup>2</sup>

The tertiary and access roads in table 8.2 are provided for the existing built-up area. However, adequate urban space has been provided for further tertiary and access roads in expanded areas, though they are not visible on the map.

In order to reduce travel time and road accidents, some of these roads within the network have been selected for rehabilitation or tarring (see **Map 8.2**).

### 8.1.3 Cross Sectional Profiles of Roads

The proposed cross sectional profiles of the three proposed level in the hierarchy of road networks can be seen in Figure 8.1, 8.2 and 8.3 below.

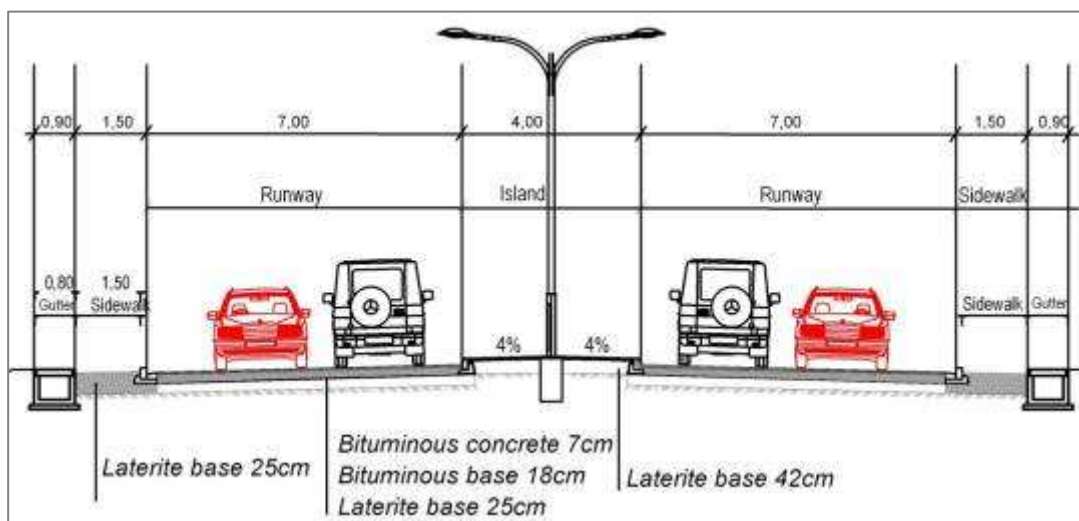


Figure 8.2: Cross Section Profile of proposed Secondary Road

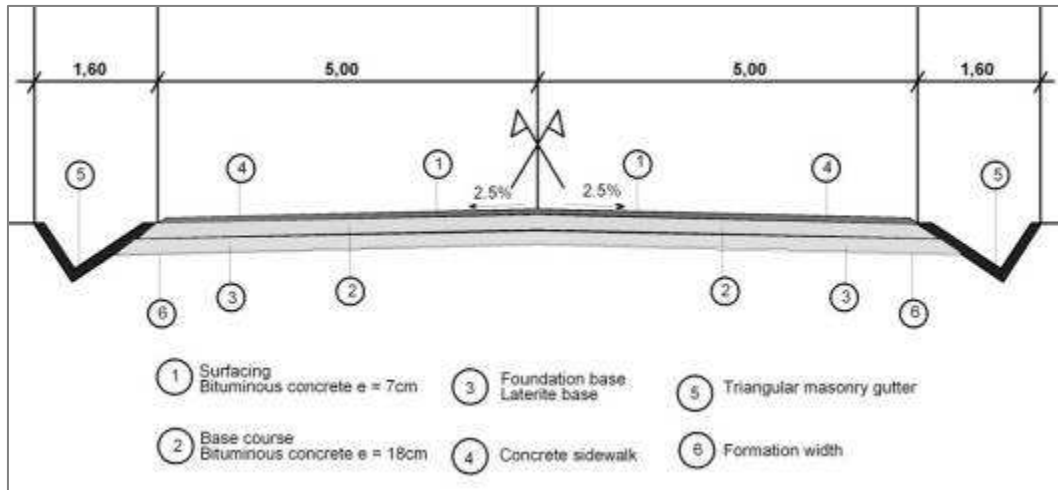


Figure 8.3: Cross Sectional Profile of Proposed Tertiary Road

## 8.2 Drainage

Only the National road N11 is well drained from GHS to the Council Junction. The palaces, particularly along palace road, have no drainage structures. This has also affected the highly congested settlement found on this plateau.

A restructuring plan has been recommended for this area, hence, the entire proposed drainage networks and infrastructure shall be elaborated.

### 8.2.1 Elements

The drainage in Wum can be analysed under the following elements:

- Natural drainage;
- Road drainage channels and structures;
- Drainage of individual properties.

### 8.2.2 Proposed Drainage Network

The proposed drainage network takes two forms:

- A hierarchy of road drainage channels and structures which is closely related to the hierarchy of urban road networks;
- A hierarchy of natural drainage channels which is closely related to existing water courses;

A third level of drainage networks is the drainage of lower hierarchy of roads and individual properties; this does not feature on the plan, but should normally connect to road drainage channels. (See **Map 8.3**)

The hierarchy of natural drainage channels is reflected in the hierarchy of water courses as follows:

- River and large stream courses;
- Small stream courses;
- Seasonal runoff courses.

Individual sites and properties are expected to be drained into a dense network of local and tertiary road drainage channels, which either empty into natural drainage channels, or the hierarchy of road drainage channels. Strict regulations and control of the drainage of individual sites and properties should be imposed.

### 8.3 Water Supply Networks

To meet up with regular and adequate water supply in Wum, studies should be carried out on how to extend the existing network to other quarters where there is no portable water and eventually to new urban area earmarked for development.

#### 8.3.1 Elements

- Sources of water supply;
- Capacities of sources of water supply;
- Quality of water supply;
- Hierarchy of water supply network;
- Access to safe water supply;
- Maintenance of networks and infrastructure.

#### 8.3.2 Source of Water Supply

The people of Wum Town rely on three major sources of water: water is supplied by the Community, CDE and from streams and water points. Statistics have shown that a greater proportion of the inhabitants depend on community and stream sources. The CDE appears to be getting unpopular in their distribution since there has been little or no maintenance on their lines and most of the taps are blocked.

#### 8.3.3 Capacities of sources of Water

Wum Town has three major storage tanks; one at Magha with a capacity of 15m<sup>3</sup>, another at Naikom with 15m<sup>3</sup> and the CDE tank at Waindo with 750m<sup>3</sup> giving a total capacity of 780m<sup>3</sup>.

#### 8.3.4 Quality of Water Supply

Statistics have shown that the community and stream sources contribute almost 99% of water supplied to the neighbourhoods in Wum. Given that Wum community water is pure, it appears that only stream water is not very safe for drinking. Thus drinking water should be carried only from stand taps to avoid any situation of water borne diseases.



Photo 8.1: Water Source in Wum Town



Photo 8.2: Blocked Stand Tap

#### 8.3.5 Access to Safe Water

Safe water for drinking is provided both by the CDE and the community water project. CDE's problem has been lack of maintenance on their existing stand taps. Almost all their stand taps are not functional despite the volume of 780 m<sup>3</sup> of water available to it. Access to potable water is therefore fairly appreciable in Wum. Table 8.3 below summarises the state of water stand taps in Wum.

Table 8.3: State of Water Infrastructure

Supplier	Water point (Number)	Stand taps (Number)	Non-functional (Number)	Functional (Number)
CDE/CAMWATER	0	28	27	1
Community	1	26	4	22
Total	1	54	31	23

Source; CAMGIS field work

### 8.3.2 Proposed Water Supply Networks

The proposed hierarchy of water supply networks includes:

- Primary transportation main which carries portable water from source to the storage reservoir or tank;
- Secondary distributor network which takes potable water from the reservoir to the major spatial units of the town;
- Tertiary distributor network which distributes water within defined neighbourhood.

Local distribution networks are expected to distribute water to clusters and blocks accordingly (see **Map 8.4**). Service connection mains link individual homes, buildings and sites to the whole water supply network.

### 8.3.3 Maintenance of network and infrastructure

Authorities in charge of maintaining this network still need to do much to remedy this situation.

The rehabilitation/realignment of the network infrastructure (especially urgent where water supply lines are exposed) are recommended to prevent breakage in the entire system.

## 8.4 Energy Supply

Wum Town is sufficiently served with electricity distribution networks. The principal problem is irregular electricity because the AES-SONEL sub-station at Ntarikon, Bamenda is erratic in its supply. The solution to the problem can only be obtained when the envisaged Kpep hydro-electricity station would be constructed on the Menchum Fall hydro-electricity project.

Wum needs regular electricity supply and an extended network to cope with the energy demands of the population.

### 8.4.1 Elements

- Capacities of energy sources;
- Alternative sources of energy (the equatorial location of Wum means the solar system can be an alternative source to HEP, thermal power can also be developed even though very expensive.)
- Energy supply networks;
- Energy infrastructure and installation;
- Energy distribution system;
- Access to energy;
- Maintenance of networks, infrastructure and installations.

### 8.4.2 Proposed Energy Supply Networks

Electricity is the only collective source of energy. The proposed hierarchy of the electricity supply network includes:

- The high tension line which transports electricity into Wum;

- Medium tension lines which step down the capacity and transports energy to main spatial units within the town;
- Distribution lines which distribute energy to small spatial units such as clusters and blocks.
- Individual connection lines link individual buildings and homes to the whole network.

## **8.5 Sewage Systems**

### **8.5.1 Elements of standard sewage systems**

- Domestic sewage;
- Public sewage;
- Sewage networks;
- Sewage treatment plants;
- Sewage infrastructure and structures;
- Low-cost sewage treatment plant.

Each proposed collective sewage network is composed of:

- A treatment and disposal plant located at a low point;
- A trunk sewage network which empties into the treatment plant;
- A primary collector sewage network which collects from major spatial units such as neighbourhoods and districts and connects to the trunk sewers;
- A secondary collector network which collects from clusters and blocks and connects to the primary network;
- Local collectors which connect individual households, buildings and activity areas to secondary collectors.

### **8.5.2 Low cost sewage treatment system**

This system is suitable for communities with low population density, whereby the use of sewage network is very expensive to run. It can also be designed for group of houses, clusters, neighbourhoods, spatial units and even the whole town.

It has the advantage that it does not require a lot of energy to function; nor does it require the lowest point to function.

The sewage is collected by trucks and deposited in a treatment plant made of several ponds using natural methods to break down the sewage completely, and the water at the exit is of a quality that is not dangerous to the environment. The quality of the water depends on the number of facultative and maturation ponds.

The elements of the pondage system:

- Septic tanks;
- Tankers;
- Stabilizer ponds ( anaerobic, facultative and maturation ponds);
- Disposal units.

The advantages are that a pond:

- Does not require expensive equipment;
- Does not require highly trained operational personnel;
- Is economical to construct;
- Provides treatment that is equal or superior to some conventional processes
- Is adaptable to changing loads;
- Is adaptable to land application;
- Consumes little energy;
- Serves as a wildlife habitat;

*Summary Urban Development Plan - Wum Town*

- Has an increased potential design life;
- Has few sludge handling and disposal problems;
- Is probably the most trouble-free of any treatment process when used correctly, provided a consistently high quality effluent is not required.

The limitations are that the pondage system may:

- Emit odours;
- Require a large area of land;
- Treat wastes inconsistently depending on climatic conditions;
- Contaminate ground waters unless properly lined;
- Have high levels of suspended solids in the effluent.

The pondage system is recommended for pilot implementation in the Council Layout where practically all the requirements are more than amply met.

## CHAPTER NINE: URBAN ENVIRONMENT

### 9.1 The main elements of the urban environment include:

- a) Protected areas;
- b) Urban open spaces;
- c) Public hygiene and sanitation;
- d) Solid waste;
- e) Pollution of the environment;
- f) Urban landscape.

The management of the urban environment is to ensure an equitable and sustainable management of the urban space. The justification of such a management include:

- Non-occupation of protected areas such as roads, watercourses and catchments by developmental endeavours such as houses and farms;
- Provision of open space and facilities for recreation and relaxation;
- Elimination of waste in public places and the smell it produces on decomposition;
- Reduction of pollution in the urban ;
- Improvement in the hygiene and sanitation of the urban environment.

### 9.2 Management of Protected Areas

#### 9.2.1 Elements of Protected Areas

Protected areas within Wum Town include vulnerable, risky, and scenic sites which should not be occupied, developed or built upon. These include:

- All public rights-of-way which include all proposed:
  - Arterial roads;
  - Primary distributors;
  - Secondary distributors;
  - Tertiary distributors;
  - Access Roads.

Constructions shall only be allowed following the right-of-way as seen in Table 9.1 below on both sides of the roads.

Table 9.1 Rights-of-way

Road Description	Right-of-way	Distance from the centre of road
National	60m	30m
Primary distributors	40m	20m
Secondary distributors	30m	15m
Tertiary distributors	20m	12.5m
Access Roads	10m	10m

Source: CAMGIS, 2012

- Lakes
 

Ordinance No 74-2 of 6 July 1974 established rules governing State lands. Chapter One on public property (Article 3 (1)), states that national public property shall comprise:

  - Coastal lands;
  - Water ways (lakes);
  - Sub-soil and air space.



Article 3(3) also states that a zone of 25m must be measured from the highest water level before any private or public development takes place. Article 3(3d) further states that lakes, ponds and lagoons are within the limits determined by the high water level.

Lake Wum is said to have been sold to an individual who has started developing it. State investments (fence, rest huts for tourists, etc.) have been destroyed, contrary to the ordinance as cited above. The person who acquired the said state property (Lake Wum) carried out an illegal act.

It is recommended here:

- That the administration should stop any development currently being carried out on or around Lake Wum by private individuals;
- That the land certificate or any official document delivered to the said individual should be withdrawn forthwith and cancelled;
- That the Council/state should take appropriate steps to secure and protect this invaluable property for future generations.



Photo 9.1: Destructive Private Developments around Lake Wum

- All watercourses  
All watercourses are to be protected as can be seen in Table 9.2 below:

Table 9.2: Distances from Protected Water Bodies

Type of Water Bodies	Distance from the streams
Rivers	25m
Streams	15m
Seasonal Streams	10m
Brooks	5m

- Water catchments: Should be jealously protected using environmentally friendly tree species locally adapted to the environment.

### 9.3 Open Space System

#### 9.3.1 Elements of open space

- Protected areas:
  - Water courses and flood plains,
  - Natural resources;
- Public right of way;
- Town parks and Gardens;
- District parks;



- Sports facilities:
  - Town stadiums,
  - District playgrounds,
  - School playgrounds.

## **9.4 Town Hygiene and Sanitation Plan**

### **9.4.1 Elements of Hygiene and Sanitation**

- Housing conditions:
  - Ventilation;
  - Toilets and latrines;
  - Surroundings.
- Public Conveniences:
  - Toilets and latrines;
  - Urinals.
- Undeveloped plots;
- Watercourse management;
- Water pollution;
- Control of pests and rodents;
- Solid waste management;
- Air pollution.

## **9.5 Management of Solid Waste**

### **9.5.1 Elements and Aspects of Solid Waste Management**

- Components of solid waste;
- Management of pre-collection;
- Collection sites;
- Waste containers;
- Collecting and transportation;
- Waste treatment (recycling);
- Waste disposal;
- Financing waste management;
- Waste management technology;
- Sources of solid waste;
- Organization of solid waste management.

### **9.5.2 System of Solid Waste Management**

Solid waste collection points should be located at 200-500 metres apart along tertiary, secondary and primary distributor roads.

## **9.6 Sewage Management**

Sewage management deals with the collection, transportation, treatment and safe disposal of domestic, public and industrial liquid waste.

### **9.6.1 Elements of Sewage Management**

- a) Domestic toilets and latrines;
- b) Public conveniences (toilets and urinals);
- c) Industrial waste treatment plants.

## **9.6.2 Guidelines for Sewage Management**

To improve on sewage management in the short term, the following guidelines are recommended:

- a) Continuously sensitise the public on the proper handling of domestic and public liquid waste;
- b) Ensure the adequate capacities and design of sewage facilities in the building and business approval processes;
- c) Regularly inspect and control domestic and public sewage facilities;
- d) Organise the regular evacuation, transportation, treatment and safe disposal of sewage.

## **9.7 Pollution of the Urban Environment**

### **9.7.1 Elements of Urban Pollution**

The elements of urban pollution include:

- a) Water courses and bodies;
- b) Air;
- c) Physical environment and landscape.

### **9.7.2 Guidelines for Pollution Management**

To gradually reduce levels of urban environmental pollution, the following guidelines are recommended:

- a) Continuous sensitisation of the public on ways of reducing pollution;
- b) Carry out proper public hygiene and sanitation programmes;
- c) Ensure the systematic planning and development of land;
- d) Ensure the proper management of solid and liquid waste.

## **9.8 Environmental Impact Assessment of Land Use Proposals**

### **9.8.1 Environmental Effects and Impacts of Land Use Proposals**

#### **9.8.1.1 Positive Environmental Impacts**

- A well planned town both environmentally and socially will provide enough space for various uses and projections for future needs, and thus ensure the sustainable development of the area. All the negative impacts will be greatly reduced or eliminated in a well planned Wum Town.
- By improving efficiency in energy use, transportation, and urban planning, the town could turn from being a polluter into a vital part of the solution and also to reduce climate change as a result of less pollution.

#### **9.8.1.2 Negative Social Impacts**

- Visible land degradation, e.g. eroded cropland, siltation of rivers and streams resulting in flooding and degradation of woodland;
- Flooding of water bodies as a result of siltation of the rivers due to erosion and dumping of waste into the streams;
- Encroachment on forest, and wildlife reserves;
- Loss of biodiversity;
- Climate variability and change due to negative intense human activities on the environment;
- Non-rehabilitation of quarry sites after folding up activity, leaving derelict land with holes in the ground;
- Land degradation as a result of poor management and unsustainable land use practices;
- Risks of chemical poisoning from crops and water as a result of wrong use of chemicals and doses;

- Pollution of the atmosphere due to slash and burn agriculture and industrial activities;
- Over-exploitation of forest products;
- Pollution of air and water due to wastes from households and garages. Due to dumping of sewage in water bodies, water pollution can occur and can lead to outbreaks of epidemics.

## **9.8.2 Social Effects and Impacts of Land Use Proposals**

### **9.8.2.1 Positive social impacts**

- Good social amenities such as schools, potable water, health infrastructures, road networks, communications facilities, and electricity are readily available;
- Limited employment opportunities are available.

### **9.8.2.2 Negative social impacts**

- Migration to Wum Town;
- Increase in crime;
- Lack of employment opportunities;
- Poor health and nutrition;
- Population pressure on land resources;
- Displacement and resettlement of people affected;
- Conflicts among farming, and non-agricultural uses;
- Unequal distribution of land, capital and opportunities;
- Restrictions of land tenure and landownership;
- Inadequate water supply and distribution;
- Climate variability and change due to negative intense human activities on the environment may occur due to proposed land use planning.

## CHAPTER TEN: ECONOMIC BASE AND INSTITUTIONAL DEVELOPMENT

The main components of the urban economic base and institutional development include:

- The urban economic base;
- Local finance;
- Partnership;
- Local governance.

### 10.1 Development of an Economic Base

#### 10.1.1 Elements of an Economic Base

##### 10.1.1.1 Industry

###### a) Manufacturing

- **Farm tools**

This could be done by encouraging entrepreneurs to produce the farm tools in large scale for sale in the neighbouring markets in the North West and other regions of the country and neighbouring Nigeria.

- **Animal feed production and fertilizer production**

The Council could run a firm that will specialise in producing both animal feeds and fertilizers in Wum using organic waste from the farm, household waste alongside other biodegradable waste. This transformation could be done using E.M. technology (Effective Micro-organism Technology).

- **Oil Palm production**

This could be done by encouraging large scale oil palm production through small plantations mainly for commercial purposes.

###### b) Processing, transformation and packaging of produce and products

- Maize flour production by encouraging large scale production for commercial purpose;
- Fruit juice, drinks production by encouraging large scale production of fruits like pineapples and oranges mainly for commercial purposes, etc;
- Cassava flour production by encouraging large scale production for commercial purpose;
- Sweet potato flour;
- Others.

###### c) Maintenance Industry

- Vehicle and mechanical maintenance services: Opening up of standard garages. The Council can achieve this during the construction of Bamenda-Wum road. The road will definitely increase the rate of vehicle and motorcycle transportation in Wum Town;
- Information and communication technology by precipitating road construction and ensuring constant and sufficient supply of electricity in Wum;
- Metal fabrication: This can be done by encouraging this activity on a large scale and ensuring the sufficient and constant supply of electricity by encouraging commercial production in this sector.

###### d) Wood processing and transformation

- Building components: The Council could work with the timber exporting companies to achieve this objective;
- Furniture: The Council could encourage the local community to involve itself more in carpentry activities. Wum is blessed with trees. The Council could run a small firm for the commercial production of house furniture for marketing particularly in Nigeria.

### 10.1.1.2 Developing a Financial Centre

#### 1) Foreign exchange centre

- By encouraging investors to invest in the financial sector;
- By encouraging savings.

#### 2) Money transfer and remittances;

- By encouraging cross-border entrepreneurs to transfer money through the money exchange units to avoid the inconveniences or theft due to insecurity;
- By encouraging elites to invest back home (Wum) through their remittances.

#### 3) Micro credit financing;

- By encouraging local savings and discouraging hoarding;
- By encouraging the growth of micro-credit institutions through tax incentives.

### 10.1.1.3 Development of Urban Services

#### 1) Promoting inter-urban transportation

By encouraging business activities from neighbouring Nigeria and towns and villages in Cameroon around Wum to ply the road.

#### 2) Promoting sports and recreation

By building town parks, gardens and playgrounds.

#### 3) Hotel and catering services

This could be done mainly by encouraging the construction of three star hotels. The private sector could take this challenge for more income to the Wum community.

#### 4) Warehousing

The Council could construct a large warehouse for goods from the hinterland or Nigeria.

#### 5) Promotion of ecotourism

This activity is seen as environmentally responsible travel to natural areas, in order to enjoy and appreciate nature (and accompanying cultural features, both past and present), promote conservation, have a low visitor impact and provide for beneficially active socio-economic involvement of local peoples.

While ecotourism is now being promoted, good ecotourism must meet the following principles:

- Minimize the impact of visiting the location (i.e. the use of roads);
- Build respect and awareness for the environment and cultural practices;
- Ensure that the tourism provides positive experiences for both the visitors and the hosts;
- Provide direct financial aid for conservation;
- Provide financial aid, empowerment and other benefits for local peoples;
- Raise the traveller's awareness of the host community's political, environmental and social climate.

Responsible travel to natural areas that conserves the environment and improves the well-being of the local people of Wum Town is something therefore thought to be gainful, and therefore to be encouraged.

### 10.1.1.4 Organisation of the Marketing of Produce and Products

Establish market units for:

- Foodstuffs;
- Small livestock;

- Crafts;
- Construction materials;
- Creation of corporate marketing ventures.

The products could be marketed within the North West and other regions of Cameroon and in Nigeria.

#### **10.1.1.5 Real Estate Development in Wum**

- Organise urban land market: The Council could develop proposed layouts and lease out to interested persons and local investors.

#### **10.1.1.6 Construction Industry**

- Expansion of public works within the town: The Council could lobby the central government to finance the public works, in optimising the benefits of the partnership which Wum Council has with MINHDU.
- Expansion and upgrading of private construction: The Council could encourage landlords to construct modern buildings to give the town a good facelift.
- Provision of street lighting.

### **10.2 Local Finance**

#### **10.2.1 Aspects of Local Finance**

The main aspects of local finance include:

##### **10.2.1.1 Sources of local Council revenue**

The Council could increase its local revenue by carrying out the following:

- Developing the motor park in Wum in order to collect park fees;
- Institute sanitary inspection tax;
- Council tolls during the commercially busy season;
- Generating revenue by constructing municipal toilets in strategic areas;
- Fees from warehouses;
- The provision of water and collecting of water rates;
- The sale of municipal bonds;
- The sale of development cards on identified projects under the management of an independent, transparent and trust-worthy committee;
- Increase Council participation in corporate management;
- Attracting more external funding by developing people-oriented projects;
- By forging partnerships with other Councils in the developed world;
- Encouraging the twinning of Councils;
- Advertising charges;
- Hiring of Council infrastructure and furniture.

##### **10.2.1.2 Council revenue**

The budgeted Council income for the past two years has fallen far short of the actual income collected.

The following could be done to redress this situation:

- The Council should reduce leakages in its revenue;
- Privatising some of the Council activities like toll gate collection which is already yielding fruits in some other councils is equally encouraged in Wum Council.

##### **10.2.1.3 Council expenditure**

The Council expenditure is split into:

- Recurrent expenditure;
- Capital expenditure.

#### **10.2.1.3.1 Recurrent expenditure**

The Council spends more on recurrent expenditures than capital expenditures. For sustainable growth to take place, the Council should cut down on its recurrent expenditures by scrutinizing its recurrent expenditure line and eliminating or cutting out those items that are no longer effective.

#### **10.2.1.3.2 Capital expenditure**

The Council should stress more on:

- i. Maintenance of Council buildings and roads;
- ii. Development projects like the provision of water and electricity;
- iii. The investments on municipal enterprises such as an animal feed firm;
- iv. Studies and planning, e.g. provision of water in Wum Town, development of tourism in Wum, including the construction and equipment of a museum, etc.

#### **10.2.1.4 Management of local Council finances**

The finances could be better managed as follows:

- Increasing the level of transparency and management to boost its image and build more confidence amongst members of the public;
- Increasing the level of accountability in financial management and auditing of Council accounts;
- Practising local Council financial management by involving the elected representatives, members of civil society, members of local government services and even some members of the traditional Councils;
- Ensuring effective implementation of texts/resolutions in the Council financial management;
- Council should review its budgeting in detail to wipe out those programmes that are no longer effective.

### **10.3 Partnership**

#### **10.3.1 The Partners of Local Councils**

The main partners of local Council include:

- a) Elected representatives of the population;
- b) Supervisory authorities;
- c) External departments of the government;
- d) Traditional authorities;
- e) Civil society organizations;
- f) Non-governmental organizations;
- g) Community based organizations;
- h) Economic operators;
- i) Professional bodies such as the national orders of town planners, architects, engineers, land surveyors and estate managers;
- j) Other local Councils; and
- k) Funding partners.

The local Council needs to galvanise and synergise the involvement and effective participation of its local and external partners. To do so, it needs to:

- a) Identify potential partners and their respective project areas;

- b) Create forums for collaboration;
- c) Prepare and sign memorandums of understanding with each committed partner;
- d) Prepare and respect operational procedures for partnering with local, national and external partners;
- e) Networking with other development partners.

### **10.3.2 Wum Council – MINH DU Partnership**

The benefits in the partnership between Wum Council and the Ministry of Housing and Urban Development need to be fully exploited by the Council which is now not fully exploiting these opportunities.

## **10.4 Local Governance**

The implementation of this scheme and the continuous planning and development shall depend on the development of functional institutional frameworks for local governance. These institutional arrangements should include:

- a) The creation of a local planning authority for Wum Council;
- b) The establishment of functional mechanisms for financing town planning and urban development;
- c) The creation of a forum for developing the economic base; and
- d) The definition and enforcement of operational procedures for:
  - Town planning;
  - Land development;
  - Development control.

It is strongly recommended that the planning authority board to be created should have the balanced representation of:

- Elected representatives of the population;
- Local economic operators;
- Local Council executives;
- The government;
- Civil society.

However, to ensure continuity, sustainability and accountability, they should be chaired by independent personalities and professionals with clear visions and commitment to the development of Wum Town. In this respect, specific studies and recommendations should be carried out on the creation and functioning of these proposed organs.



## **PART IV: IMPLEMENTATION**

## CHAPTER ELEVEN: IMPLEMENTATION STRATEGIES

### 11.1 Urban Spatial Structure

#### 11.1.1 Development and Management of Service Centres

##### 11.1.1.1 Policy

Policy proposal is based on collectively planning and developing service centres:

- a) Collectively develop and service land within service centres;
- b) Acquire, conserve and develop collective facilities in service centres;
- c) Allocate land for private development within service centres.

##### 11.1.1.2 Strategy

The following are the main strategies adopted in the planning of Wum Town:

- a) Define and clarify roles and responsibilities for planning, development and management of service centres;
- b) Mobilize resources for developing service centres;
- c) Encourage the participation of economic operators and beneficiary communities in the development and management of service centres;
- d) Encourage the involvement and use of external resources in the planning and development of Wum Town.

##### 11.1.1.3 Guidelines for Spatial Evolution

The spatial evolution of Wum Town should be guided by the following factors:

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

##### 11.1.1.4 Procedures

- a) Delimiting service centre sites;
- b) Acquisition of sites;
- c) Planning and design of sites;
- d) Development and servicing of the sites for service centres;
- e) Allocation of land for private developers;
- f) Development and construction of collective facilities;
- g) Management of service centres; and
- h) Maintenance of service centres.

##### 11.1.1.5 Roles and Responsibilities for Urban Service Centres

The roles and responsibilities for planning, developing and managing service centres are summarized in Table 11.1 below.

Table 11.1: Roles and Responsibilities for Urban Service Centres

N°	Roles and Responsibilities	Council	MINDCAF	MINHDU	SDO / DO	Economic Operators	Community
1	Planning	*	*	*	*	*	*
2	Site acquisition	**	*	*	*	*	
3	Designing	**		*		*	*

N°	Roles and Responsibilities	Council	MINDCAF	MINHDU	SDO / DO	Economic Operators	Community
4	Financing	*		*		*	*
5	Site development	**		*		*	*
6	Construction	**		*		*	*
7	Managing	**				*	*
8	Maintenance	**				*	*

Source: CAMGIS 2012 Key: Main actors \*\*, Complementary actors \*

## 11.1.2 Landscape Architecture

### 11.1.2.1 Guidelines for Landscape Architecture

To improve on the landscape architecture, the following guidelines are recommended:

- a) Ensure proper urban planning and design;
- b) Ensure systematic subdivision, development and construction on urban land;
- c) Ensure effective control of land development;
- d) Prepare and implement land use plans and regulations.

### 11.1.2.2 Roles and Responsibilities

The Council has direct responsibilities to ensure satisfactory urban landscaping. However, the Council should work in collaboration with:

- e) The external services in charge of housing and urban development;
- f) The external services in charge of lands and surveys;
- g) Professional bodies of town planning, architecture, civil engineering, lands and surveys;
- h) Landlords and land developers;
- i) Entrepreneurs.

## 11.1.3 Urban Spatial Nomenclature and Street Furniture

### 11.1.3.1 Guidelines for Urban Spatial Nomenclature and Street Furniture

- a) Localise the control and exploitation of publicity billboards, signboards and notice boards;
- b) Establish operational procedures for naming places and numbering plots and buildings in the process of planning, designing, development and management of space;
- c) Ensure the installation of regular street furniture, traffic and directional signboards.

### 11.1.3.2 Roles and Responsibilities

The primary responsibilities for urban spatial nomenclature and street furniture are with Wum Council. However, it should work in close collaboration with:

- a) Supervisory authorities;
- b) Professional bodies for town planning, architecture, land surveying, estate management and civil engineering;
- c) Traditional authorities;
- d) Landlords and developers;
- e) Community based organizations;
- f) The external services in charge of housing and urban development, lands and surveys.

## 11.2 Land Use

### 11.2.1 Proposed Land Use Plan

#### 11.2.1.1 Land Use Policy

- 1) Regroup existing, incompatible and dispersed human activities;
- 2) Consolidate and enhance existing compatible human activities;
- 3) Prepare and enforce land use plans of new areas of urban expansion.

#### 11.2.1.2 Strategies

- 1) Sensitise the public on the importance of land use management;
- 2) Assist the public in preparing and implementing land use plans;
- 3) Clearly define operational procedures for land use management.

#### 11.2.1.3 Land Use Management Procedures

- a) Verify and adopt the proposed limit of the urban area;
- b) Improve and adopt land use zoning regulations;
- c) Check for land use conformity in the process of:
  - Development control,
  - Land transactions,
  - Issuing town planning certificates,
  - Issuing building permits,
  - Approving the modification of buildings,
  - Approving the change of land use.

#### 11.2.1.4 Actors

The Council is responsible for the overall management of land use. However, this should be done in association with:

- a) Land owners;
- b) Inhabitants;
- c) Traditional authorities;
- d) Supervisory authorities:
  - S.D.O., Menchum Division,
  - Divisional Officer for Wum Central;
- e) Legal Department;
- f) Public Security;
- g) External services of housing and urban development;
- h) External service in charge of lands and surveys;
- i) All other sector services and agencies of the government making an impact on the land.

### 11.2.2 Housing

Create conditions for the poor and medium income earners to improve their quality of housing as well as increase their housing stock.

#### 11.2.2.1 Strategies

- Facilitate access to land for housing of the poor;
- Facilitate access to housing finance and credit;
- Facilitate access to technical assistance in housing development;
- Promote the development and use of local building materials;
- Upgrade slum-housing areas;
- Encourage the filling of vacant housing plots;

- Organize the supply of land for housing;
- Organize housing market transactions;
- Simplify procedures for approval of building plans;
- Simplify procedures for obtaining building permits;
- Standardize housing plots and plans for the poor.

#### **11.2.2.2 Partners and actors**

- The Government of Cameroon;
- Wum Council;
- External services of Housing and Urban Development;
- External services of Surveys, Land Tenure and State Property;
- The administrative authorities of the Division and Subdivision;
- CFC, SIC, MAETUR;
- Foreign funding partners;
- Commercial banks;
- Micro-Finance institutions;
- Money transfer structures;
- Professionals (Architects, Engineers, Town Planners, Surveyors, etc.).

### **11.2.3 Infilling of Vacant Housing Plots**

Several vacant, partially developed and abandoned building plots are found in the town. These plots should be identified and necessary measures taken to develop them, and thus make optimum use of land and existing/planned infrastructure and services.

#### **11.2.3.1 Operational procedures**

The operational procedures for infilling involve:

- Identification of plots and sites to be infilled;
- Specification of building rules and regulations to be respected;
- Upgrading and extension of roads, drainage structures, services and public utilities into these sites;
- Facilitation of access to housing finance and technical assistance;
- Control of housing development technically and administratively;
- Imposition of a tax on serviced but undeveloped building plots.

#### **11.2.3.2 Sources of finance**

Funds for financing infilling of vacant and under-developed plots could be obtained from:

- Crédit Foncier du Cameroun (*Cameroon Housing Loans Fund*);
- Commercial banks;
- Cooperative credit unions;
- Mortgage societies;
- The public investment budget (PIB).

### **11.2.4 Rehabilitation of Dilapidated Houses**

Dilapidated houses destroy the cityscape of the town and threaten the safety of the population.

#### **11.2.4.1 Procedures**

The rehabilitation of dilapidated, abandoned and uncompleted houses within the existing urban area should involve:

- Identification of the houses;
- Provision of technical and financial assistance to concerned house owners;

- Control of the rehabilitation works;
- Imposition of a tax on undeveloped land or abandoned structures.

#### **11.2.4.2 Sources of finance**

The sources for financing housing rehabilitation include:

- The landlords;
- The Diaspora, foreign aid;
- Cameroon Housing Loans Fund (CFC);
- Commercial banks;
- Micro Finance Institutions.

#### **11.2.5 Local Council Layouts**

Proposed layout with sites and services schemes for housing shall be realized by the Council.

##### **11.2.5.1 Operational procedures**

The operational procedures for sites and services schemes should involve:

- Obtaining authorization to create and service layouts;
- Mobilization of funds for sites and services schemes;
- Selection and acquisition of the site;
- Surveying, planning and laying out of the sites;
- Development of the sites by:
  - ⇒ Constructing roads and drainage networks,
  - ⇒ Connecting water and electricity,
  - ⇒ Beaconsing of plots;
- Allocation of plots to those who can afford them;
- Controlling the development and construction of houses;
- Progressively providing public and community facilities:
  - ⇒ A Nursery school and Day Care centre,
  - ⇒ A Market,
  - ⇒ Shopping facilities,
  - ⇒ Sport and recreational facilities,
  - ⇒ Open spaces,
  - ⇒ Parking lots;
- Management and exploitation of sites and services schemes.

##### **11.2.5.2 Sources of finance**

The potential sources for funding sites and services schemes include:

- FEICOM;
- Wum Council;
- Ministry of Housing and Urban Development;
- Commercial banks;
- Micro-Finance Institutions;
- The Diaspora and funding agencies;
- Heavily indebted poor countries initiative (HIPCI).

#### **11.2.6 Resettlement schemes**

##### **11.2.6.1 Policy**

The development and redevelopment of Wum shall lead to the displacement of several landlords, households and some services which should be carefully resettled on permanent sites and in decent conditions, preferably on Council layouts.

### 11.2.6.2 Procedures

The operational procedures of resettlement should involve:

- a) Acquisition of sites for resettlement schemes;
- b) Planning and laying out of the sites;
- c) Partially developing the sites by providing:
  - Basic road and drainage networks,
  - Public utilities such as water and electricity.
- d) Allocation of plots to the displaced population;
- e) Provision of technical and financial assistance to identified beneficiaries;
- f) Controlling of the construction of houses on the plots;
- g) Progressively improve the development of the sites;
- h) Provision of public and community facilities and services such as:
  - Schools,
  - Playgrounds,
  - Open spaces,
  - Markets,
  - Shops,
  - Leisure parks, etc.

### 11.2.6.3 Sources of finance

The main financing sources for resettlement schemes would include:

- a) Wum Council budget;
- b) The Diaspora;
- c) Subventions from the Ministry of Housing and Urban Development;
- d) Cameroon Housing Loans Fund (*Crédit Foncier du Cameroun*);
- e) The public investment budget (PIB).

### 11.2.6.4 Funding agencies:

- a) Government of Cameroon;
- b) UN-Habitat;
- c) *Cités d’Afrique*;
- d) Low Cost Housing Fund, etc.

## 11.2.7 Management of Urban Land

### 11.2.7.1 Policy

Ensure that land is accessible to potential developers and especially to the affected persons.

### 11.2.7.2 Strategy

- a) Verify and adopt proposed lands for collective use;
- b) Reallocate land to original owners proportionately;
- c) Protect land for collective use;
- d) Regulate the sale and development of private lands.

### 11.2.7.3 Procedures of land development

- a) Determine the need and the demand for land;
- b) Carry out feasibility studies in view of defining priority development zones;
- c) Declare priority development zones;
- d) Develop the priority development zones;
- e) Allocate land to potential developers;

- f) Control land development and construction activities;
- g) Carry out the realization of collective facilities and services.

#### **11.2.7.4 Actors and partners**

The Council, in collaboration with the relevant decentralized government services, has the main responsibility for the development and supply of urban land. However, this should be done in collaboration with:

- a) The occupants of national lands;
- b) Private land owners;
- c) Traditional authorities;
- d) Services of land tenure and state property;
- e) Services of housing and urban development;
- f) Public land development authorities;
- g) Council's supervisory authorities:
  - S.D.O.s;
  - D.O.s.

### **11.3 Public and Community Facilities**

#### **11.3.1 Public Facilities**

##### **11.3.1.1 Policy**

To realize these objectives this plan aims at:

- a) Making optimum use of existing facilities;
- b) Closely relating the provision of future facilities to the trends and patterns of needs and demand;
- c) Involving main stakeholders in the planning, location and siting of facilities.

##### **11.3.1.2 Strategies**

- a) Estimate the provision of facilities based on the carrying capacities of spatial units;
- b) Survey the existing levels of provision and use of facilities;
- c) Adjust the locations, sites and capacities;
- d) Relate the provision, location and sites of new facilities to the trends and patterns of need and demand.

##### **11.3.1.3 Actors**

Council should play a more active role in the provision, location, siting and management of public and community facilities. It should continuously monitor and express the needs and demands for public facilities to providing authorities. It should facilitate access to land and mobilize the immediate beneficiaries and local communities to contribute and participate in the provision of public and community facilities. Finally, it should also create a conducive environment to attract funding for basic urban and social services. The Council should work in collaboration with traditional authorities, Village Development and Cultural Associations, public and para-public services.

#### **11.3.2 Parking Facilities**

##### **11.3.2.1 Policy**

The recommended policy orientations for providing urban parking facilities include:

- a) The Council should provide parking facilities of various types;
- b) Private transporters should create private parking facilities in appropriate locations and on sites as approved by the Council.



### **11.3.2.2 Guidelines**

The strategies for providing urban parking facilities involve:

- a) Prepare and enforce rules and regulations on urban parking facilities;
- b) Effectively acquire and develop local Council parking facilities;
- c) Recover cost of provision of urban parking facilities from users and beneficiaries;
- d) Private providers of parking facilities should pay development charges to the Council.

### **11.3.2.3 Operational procedures**

- Carry out feasibility studies of the functioning of existing Council park;
- Prepare and approve plans for the provision of Council parks;
- Mobilise funds for providing Council parks;
- Acquire sites for Council parks;
- Plan and lay out sites for Council parks;
- Design structures for Council parks;
- Develop sites for Council parks and construct the necessary facilities;
- Manage and maintain Council parks.

### **11.3.2.4 Actors and partners**

The Council has direct and overall responsibilities for planning, developing and managing urban parking facilities.

However, it should collaborate with:

- a) Transporters and transporters' syndicates;
- b) Ministry in charge of urban development;
- c) Ministry in charge of transport;
- d) Ministry in charge of lands and surveys;
- e) Administrative authorities: S.D.O. and D.O.;
- f) Public security;
- g) Civil society organisations.

## **11.4 Urban Networks and Infrastructure**

### **11.4.1 Road Networks**

#### **11.4.1.1 Policy**

The urban transportation network improvement policy shall aim at progressively developing a durable and coherent transportation network by:

- a) Upgrading and rehabilitating existing roads and traffic;
- b) Extending the existing transportation networks to match current needs and demands;
- c) Ensuring regular and routine maintenance of transportation networks and infrastructure so as to protect and conserve the existing ones;
- d) Diversifying transportation networks in line with new possibilities and opportunities;
- e) Continuing to extend transportation networks to cope with changing patterns and trends of needs and demands;
- f) Providing for vulnerable persons;
- g) Creation of more parking and paid parking while discouraging parking at fuel stations.

These policies are in response to the ever-increasing household car ownership, the rapid expansion of the use of motorcycles, the gradual increase in the use of bicycles, and the continuous dominance of trekking as a means of transportation.

### 11.4.1.2 Strategies

The key strategies for improving the urban transportation network in Wum should include:

- a) Clarifying the roles and responsibilities of the key actors in the sector;
- b) Mobilizing local resources for road networks and infrastructure;
- c) Creating a forum for the continuous coordination and collaboration;
- d) Ensuring the efficient and cost effective management of available resources;
- e) Attracting adequate external financial and technical assistance;
- f) Ensuring the rational exploitation of existing infrastructure through cost recovery measures from those who benefit directly.

### 11.4.1.3 Actors and partners

Table 11.2: Actors and Partners

Item	Hierarchy	Public Works	Urban Development	Local Council	Community	Landlords
01	National roads	**				
02	Farm-to-market roads	*		**	*	
03	By-passes		**		*	
04	Primary distributors		*	*	*	
05	Secondary distributors		*	*	*	
06	Tertiary distributors			**	*	
07	Access roads			**	*	**
08	Foot paths			**	*	*

Source: CAMGIS 2012      Key: \*\* Principal actor \* Complementary actor

### 11.4.1.4 Roles and responsibilities

There is need to clarify the specific vertical roles and responsibilities of the actors for:

- Planning and programming;
- Studies and design;
- Approval;
- Funding;
- Construction/works;
- Control;
- Management;
- Maintenance;
- Monitoring.

## 11.4.2 Drainage

### 11.4.2.1 Policy

- Clarify roles and responsibilities;
- Provide stable and reliable funding;
- Ensure proper studies and design;
- Ensure effective control.

#### 11.4.2.2 Strategies

- Prevent the occupation of natural drainage channels;
- Reclaim occupied natural drainage channels;
- Recover cost of value added;
- Clarify procedures.

#### 11.4.2.3 Actors

- a) Wum Council;
- b) Services of housing and urban development;
- c) Services of public works;
- d) Beneficiary communities.

### 11.4.3 Water Supply

#### 11.4.3.1 Policy

Wum Council has the overall responsibility of ensuring the adequate, balanced and equitable supply of safe water within the planning area and the municipality. Optimum use should be made of the existing water supply capacities while continuously increasing the total capacity to match increasing and changing demands. The development of water supply networks and infrastructure should be durable and sustainable. All water provision agencies and authorities should work in close collaboration with the Council.

#### 11.4.3.2 Strategy

- a) Clarify and streamline roles and responsibilities for water supply;
- b) Mobilise adequate funding for water supply;
- c) Closely relate water supply networks and capacities to demand and land development;
- d) Facilitate connection and payment procedures;
- e) Ensure prompt maintenance;
- f) Ensure regular quality controls.

#### 11.4.3.3 Roles and responsibilities for water supply

Table 11.3: Responsibilities for Water Supply

Item	Roles and Responsibilities	Local Council	Water Authority	Min. of Water and Energy	Consumers
01	Needs assessment	**			*
02	Planning and programming	**		*	
03	Financing	**			
04	Technical studies and design	*	**	*	
05	Production		**		
06	Distribution	**			
07	Connection				**
08	Billing and revenue collection	*			
09	Payments				**
10	Maintenance	*	**		
11	Monitoring and evaluation		**	*	

Source: CAMGIS 2012 Key: \*\* Main actors \* Complementing actors

#### 11.4.3.4 Water supply management procedure

A recommended practical procedure for managing water supply involves:

- a) Potential consumers apply for extension of supply or connection to their local Council;
- b) Council studies and approves connection, if possible;
- c) Local Council requests for the extension of supply of water to water supply authority;
- d) Water supply authority carries out studies and sends cost estimates to the local Council;
- e) The Council pays water authority for the extension of supply of water;
- f) Water authority extends water to the area approved accordingly;
- g) The local Council and beneficiary community receive the water supply;
- h) The local Council approves the connection of water to individual premises and informs the local Council;
- i) The local Council provides public stand taps;
- j) Beneficiaries pay to the Council;
- k) Beneficiaries report need for maintenance to the local Council;
- l) The local Council repairs all breakdowns and bills beneficiaries.

#### 11.4.4 Energy Supply

##### 11.4.4.1 Policy

In the ongoing process of decentralisation, Wum Council should have the overall responsibilities of ensuring the adequate, balanced and equitable supply of alternative sources of collective energy. However, in the meantime, optimum use should be made of existing electricity supply while increasing the capacities and diversifying the sources to match ever increasing and changing domestic and industrial energy demands. The development of energy supply networks, infrastructure and installations should be durable. Therefore, energy supply agencies and authorities should work in close collaboration with Wum Council.

##### 11.4.4.2 Strategy

- a) Clarify and streamline roles and responsibilities for energy supply;
- b) Mobilise adequate funds at Council level for energy supply;
- c) Diversify sources of collective energy supply;
- d) Closely associate representatives of beneficiaries in making decisions related to energy supply.

##### 11.4.4.3 Roles and responsibilities for energy supply

Table 11.4: Roles and Responsibilities for Energy Supply

Item	Roles and Responsibilities	Local Council	Energy Supply Authority	Min. of Water and Energy	Consumers
01	Needs assessment	**			*
02	Planning and programming	**		*	
03	Financing	**			
04	Technical studies and design	*	**		
05	Production		**		
06	Distribution	**			
07	Connection				**
08	Billing and revenue collection	*			
09	Payments				**
10	Maintenance	*	**		

Item	Roles and Responsibilities	Local Council	Energy Supply Authority	Min. of Water and Energy	Consumers
11	Monitoring and evaluation		**	*	

Source: CAMGIS 2012 Key: \*\* Main actors \* Complementing actors

#### 11.4.4.4 Energy supply management procedures

Operational procedures for managing energy supply involve the following:

- a) Individual and group consumers apply to their local Council for connection;
- b) The local Council approves connection and requests the energy supply authority to connect;
- c) The energy supply authority studies and presents cost estimates to the local Council;
- d) The local Council pays or engages to pay for the supply of energy;
- e) The energy supply authority or agency supplies energy as requested;
- f) The local Council and beneficiary communities receive the supply of energy;
- g) The energy supply authority or agency bills industrial consumers and collects revenue;
- h) Revenue is shared between the energy supply authority and the local Council.

#### 11.4.5 Sewage Facilities

##### 11.4.5.1 Policy

- a) Upgrade and rehabilitate existing poor domestic sewage facilities;
- b) Organize the evacuation, treatment and disposal of existing domestic and public sewage facilities;
- c) Ensure the effective control of the construction of domestic sewage facilities;
- d) Provide adequate public sewage facilities in public places;
- e) Plan and progressively construct collective sewage systems based on the proposed spatial structure of the city.

##### 11.4.5.2 Strategies

- a) Clarify the roles and responsibilities for sewage management;
- b) Carry out a study of the state of sewage facilities in high density housing areas;
- c) Carry out a feasibility study of the need for public sewage facilities;
- d) Develop shared sewage facilities within high density housing areas;
- e) Institute regular inspection of domestic sewage facilities;
- f) Introduce affordable and appropriate domestic sewage technology;
- g) Search for a reliable and stable source for financing the development of a collective sewage system.

##### 11.4.5.3 Management procedures

- a) Regular sanitary inspection of domestic sewage facilities;
- b) Procedures of building permit.

##### 11.4.5.4 Actors

The Council has overall responsibility for sewage management.

However, it should work in close collaboration with:

- a) Landlords;
- b) Occupants of houses;
- c) Public health authorities;
- d) The public;
- e) Services of housing and urban development;

f) Quarter heads.

## **11.5 Urban Environment**

### **11.5.1 Protected Sites**

#### **11.5.1.1 Policy statement**

- Identify and map out all natural sites for protection;
- Protect, conserve, reclaim and develop vulnerable sites to reduce risk and natural disasters;
- Acquire, develop and manage formal open spaces.

#### **11.5.1.2 Strategy**

- Regulation of protected sites;
- Development control on protected sites;
- Progressive reclamation and development of protected sites;
- Resettlement of those affected.

#### **11.5.1.3 Management procedures**

- Designate and declare all protected sites;
- Reinforce national and international laws on protected areas;
- Promulgate bye-laws for managing protected areas;
- Digitise protected sites;
- Reject all land transactions on protected sites;
- Reject all applications for town planning certificates on protected sites;
- Reject all building permits on protected sites;
- Evaluate development on protected sites;
- Gradually re-settle occupants of protected sites;
- Develop and restore sites.

#### **11.5.1.4 Actors**

- Local Council legislative organ;
- Local Council executive;
- Ministry in charge of Lands;
- Ministry in charge of Urban Development;
- Ministry in charge of Environment;
- Supervisory authorities (S.D.O. and D.O.).

### **11.5.2 Open Spaces**

#### **11.5.2.1 Policy statement**

- All existing formal and informal open spaces are for the public;
- Acquire, plan, develop, and manage all formal open spaces.

#### **11.5.2.2 Strategies**

- Identify and document existing formal and informal open spaces;
- Declare all existing formal and informal open spaces as public utility;
- Plan, develop and manage existing open spaces;
- Continue to plan, acquire, develop and manage open spaces.

### 11.5.2.3 Management procedures

The management procedures include:

- Identifying open spaces;
- Delimiting open spaces;
- Acquiring open spaces;
- Designing each open space;
- Mobilising funds for open space development;
- Developing each open space;
- Occupying and using open spaces;
- Managing and maintaining open spaces.

### 11.5.2.4 Partners and actors

The Council is responsible for protecting and managing protected areas in collaboration with:

- Ministry in charge of Urban Development;
- Ministry in charge of Lands and Surveys;
- Ministry in charge of Youth and Sports;
- Local administrative authorities;
- Beneficiary communities.

## 11.5.3 Town Hygiene and Sanitation Board

### 11.5.3.1 Management procedure

- a) Sensitisation programme on hygiene and sanitation;
- b) Enforcement of hygiene and sanitation rules and regulations;
- c) Regular sanitary inspections, motivations and sanctions;
- d) Hygiene and sanitation action plans for:
  - Local Council;
  - Neighbourhoods.

### 11.5.3.2 Actors and partners

- a) Landlords;
- b) Tenants and occupants;
- c) Service providers;
- d) Community based organizations;
- e) Local non-governmental organizations (LNGOs);
- f) Traditional authorities:
  - ✓ Chiefs,
  - ✓ Quarter heads,
  - ✓ Notables;
- g) Local Councils' supervisory authorities:
  - ✓ Prefects;
  - ✓ Sub-prefects;
- h) Local Councils:
  - ✓ Legislative organ,
  - ✓ Executive organ.
- i) Central government departments:
  - ✓ Ministry in charge of Local Councils;
  - ✓ Ministry in charge of Housing and Urban Development.

### 11.5.3.3 Measures taken

#### A) *Creation of Hygiene and Sanitation Fund*

The creation of Hygiene and Sanitation Fund with contributions from:

- The local Council;
- Economic operators;
- Landlords;
- Residents;
- Subventions from central government;
- Financial and technical assistance from funding partners.

#### B) *Creation of Hygiene and Sanitation Board*

##### i. Mission

- a) Mobilisation of resources for public hygiene and sanitation;
- b) Ensure efficient use of resources for effective public hygiene and sanitation.

##### ii. Local Council Representatives

- Mayor: Chairperson;
- Two Councillors;
- Chiefs of local Council technical services.

##### iii. Government

- Divisional Officer: Adviser;
- Public health: Technical adviser;
- Public security: Member;
- Local Government Service of the Environment;
- Government Service in charge of Housing and Urban Development.

##### iv. Traditional Authorities

- Representatives of quarter heads: Members.

##### v. Community

- Local NGOs concerned;
- Representative of landlords;
- Representative of economic operators:
  - ✓ “Buyam sellam”,
  - ✓ Market associations,
  - ✓ Drivers Union,
  - ✓ Motorcycle Riders Union.

### 11.5.4 Management of Solid Waste

#### 11.5.4.1 Policy

- Minimise the generation of solid waste at production sources;
- Encourage the domestic separation (sorting) and recycling of waste;
- Ensure the regular and prompt collection, treatment and disposal of solid waste;
- Promote the economic exploitation of solid waste;
- Solid waste management policy options include:
  - Developing local Council capacity in solid waste management;
  - Selectively privatising solid waste management in public places to local entrepreneurs.



#### **11.5.4.2 Strategy**

- a) Sensitise the public on solid waste pre-collection management;
- b) Clarify roles and responsibilities for solid waste management;
- c) Prepare and implement a strategy plan for solid waste management;
- d) Enforce rules and regulations on solid waste;
- e) Identify landfill sites;
- f) Mobilize local and external funds for solid waste management;
- g) Select and use appropriate solid waste management technology;
- h) Carefully programme the collection of waste to minimize conflict.

#### **11.5.4.3 Management procedures**

The recommended system for solid waste management should be focused on:

- a) Pre-collection management by waste generation entities such as:
  - Threshing and reduction of waste at source;
  - Separation (sorting) of waste at source;
  - Proper handling of solid waste at pre-collection points.
- b) Collective management of solid waste at the level of residential blocks:
  - Collection of waste from points of generation to collection points;
  - Proper depositing of waste at collection points.
- c) Management of collection points:
  - Location and siting of collection points at cluster level;
  - Development of collection points;
  - Proper equipment of collection points;
  - Use of appropriate collection, transportation and dumping equipment;
  - Proper collection and transportation to dump sites.
- d) Management of dump sites involves:
  - Proper location;
  - Proper siting;
  - Development of dump sites;
  - Management of dump sites;
  - Treatment of waste;
  - Safe disposal of waste.

The recycling of waste is an economic venture which should be carried out by NGOs or economic operators. They may, however, be assisted by the Council, the government or funding partners.

#### **11.5.4.4 Actors**

- a) Occupants of houses;
- b) Occupants and users of public places;
- c) Local Council;
- d) Public health;
- e) Divisional officer;
- f) Traditional authorities;
- g) Local NGOs concerned;
- h) Representative of landlords;
- i) Representative of economic operators;

- j) “Buyam-sellam”;
- k) Market associations.

### **11.5.5 Sewage Management**

#### **11.5.5.1 Guidelines for sewage management**

To improve on sewage management in the short term, the following guidelines are recommended:

- i. Continuously sensitise the public on the proper handling of domestic and public liquid waste;
- ii. Ensure adequate capacities and design of sewage facilities in the building and business approval processes;
- iii. Regularly inspect and control domestic and public sewage facilities;
- iv. Organise the regular evacuation, transportation, treatment and safe disposal of sewage.

### **11.5.6 Pollution of the Urban Environment**

#### **11.5.6.1 Guidelines for pollution management**

To gradually reduce levels of urban environmental pollution, the following guidelines are recommended:

- a) Continuous sensitisation of the public on ways of reducing pollution;
- b) Carrying out proper public hygiene and sanitation programmes;
- c) Ensuring the systematic planning and development of land;
- d) Ensuring the proper management of solid and liquid waste.

## **11.6 Economic Base and Local Finance**

### **11.6.1 Economic Base**

#### **11.6.1.1 Policy**

- a. Develop local management capacities;
- b. Encourage fair competition in investment operations;
- c. Mobilize local capital;
- d. Attract foreign and local capital;
- e. Search for profitable markets.

#### **11.6.1.2 Strategies**

The strategies for developing a strong economic base for Wum should:

- Add value to primary produce and products through processing;
- Increase the level and improve the quality of the service sector;
- Develop and strengthen the tertiary sector;
- Encourage vibrant industrial development;
- Capitalize remittance from the elite;
- Attract external and foreign investors;
- Obtain a fair share of government public investment;
- Develop strong corporate investment initiatives.

#### **11.6.1.3 Actors**

Wum Council has the overall responsibility for developing the economic base of Wum Town. However, this should be done in collaboration with:

- 1) Commercial banks;
- 2) Cooperative credit unions;

- 3) Common Initiative Groups (CIGs);
- 4) Money transfer agencies;
- 5) Ministry in charge of regional planning and regional development;
- 6) Ministries in charge of trade, commerce and industry;
- 7) Non-governmental Organisations (NGOs);
- 8) Civil Society Organisations (CSOs);
- 9) Village Development Associations (VDAs).

## **11.6.2 Local Finance**

### **11.6.2.1 Guidelines for managing local Council finances**

Increase the level and stabilize local Council revenue by:

- a) Building up public confidence in the Council;
- b) Reducing leakages of local Council revenue;
- c) Diversifying sources of local Council revenue through:
  - i. Revenue generating projects,
  - ii. Increase in government's direct subventions to the Council,
  - iii. Sale of Council bonds,
  - iv. Increase the Council's participation in corporate investment,
  - v. Attract more external funding,
  - vi. Attract commercial loans for revenue generating projects,
  - vii. Reinforce twinning with other local Councils:
    - a) Ensuring realistic and balanced budgeting and expenditure for:
      - ⇒ Recurrent expenditure;
      - ⇒ Capital expenditure for:
        - ✓ Maintenance,
        - ✓ Studies and planning,
        - ✓ Development projects,
        - ✓ Investment;
    - b) Improving on the management of local Council finances through:
      - ⇒ Increasing the level of transparency of financial management,
      - ⇒ Increasing the level of accountability to the public,
      - ⇒ Practising participatory local Council financial management by involving the elected representatives of the people and local government services,
      - ⇒ Ensuring effective implementation of texts /resolutions on the Council financial management.

### **11.6.2.2 Roles and responsibilities for managing local Council finance**

The Council is directly responsible for its financial management.

However, it should work in close collaboration with:

- a. Elected representatives of the population;
- b. Supervisory authorities;
- c. Sector departments of government ministries; and
- d. Funding partners.

## **PART V: PROGRAMMING**

## CHAPTER TWELVE: PROGRAMMING OF ACTIVITIES

**TABLE 12.1: URBAN SPATIAL STRUCTURE**

Code	Action/objective	Activities	Expected results Indicators	Key actors	Period					Resources		
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)
<b>12110</b>	<b>Limits of urban perimeter</b>	-	-	-								
100	Officially declared and published as limits of Wum planning area and used in preparing urban development plan	Declaration of limits of urban perimeter	- Prefectorial order creating commission - Map showing limits of Wum Town	- Council - MINH DU	x					- Administration - Council - Traditional authorities - Civil society personnel - Technicians	- Logistics - Technical materials	10 000 000
200	Carry out studies to elaborate a Summary Urban Development Plan for Wum	- Prepare development plans - Produce maps - Make results available to the public	- Reports(Urban Diagnosis, Proposals) - Maps and plans	- Council - MINH DU - Consultant	x					- Assorted selection of experts	- Logistics - Technical materials	20 000 000
300	Carry out studies for urban street addressing in Wum Town	- Codifications - Numbering streets - Mapping - Numbering doorways - Preparing address directory	- Documents for addresses in Wum Town - Maps identifying places and transit passages - Retrievable data and information	- Council - MINH DU - Consultant		x				- Administration - Council - Traditional authorities - Civil society personnel - Technicians	- Logistics - Technical materials	10 000 000
01	<b>Choice of district centres within Wum</b> • Northern district • Southern district	- Verify and adopt the proposed limit of the areas - Survey needs of development - Search for funding - Prepare and approve development plans - Implement development plans	- Identified sites - Delimited sites	- Council - MINH DU - MIN DCAF	x	x	x			- Administration - Council - Traditional authorities - Technical services	- Logistics - Technical materials	10 000 000
02	<b>Promotion of the Summary Urban Development Plan</b>	- Carry out aggressive creation of awareness and education on the Summary Urban Development Plan	- Awareness of the existence and purpose of the Summary Urban Development Plan	- Council - MINH DU - MIN DCAF - Community - Others	x	x	x	x		- Media - Seminars/work shops	- Logistics - billboards - advertisements	3 000 000
03	<b>Development of district centres within the town</b> • Northern district	- Survey needs of development - Verify and adopt the proposed limit of the area - Search for funding	- Delimited sites - Development funds available - Approved	- Council - MINH DU - MIN DCAF - Community	x	x	x	x		- Council technicians - Private sector developers	Industrial materials (cement; steel rods) -local	18 000 000

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Code	Action/objective	Activities	Expected results Indicators	Key actors	Period					Resources		
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)
	<ul style="list-style-type: none"> <li>Southern district</li> <li>Eastern district</li> </ul>	<ul style="list-style-type: none"> <li>Prepare and approve development plans</li> <li>Implement development plans</li> </ul>	development plans available	- Others							materials (sand, stones)	
04	<b>Elaborate studies for upgrading central district</b>	<ul style="list-style-type: none"> <li>Survey needs of development</li> <li>Verify and adopt the proposed limit of the area</li> <li>Search for funding</li> <li>Prepare and approve development plans</li> <li>Implement development plans</li> </ul>	<ul style="list-style-type: none"> <li>Find funding for upgrading studies</li> <li>Do studies for upgrading</li> <li>Produce upgrading reports</li> </ul>	<ul style="list-style-type: none"> <li>Council</li> <li>MINHDU</li> <li>Community</li> <li>Others</li> </ul>			x			<ul style="list-style-type: none"> <li>Administration</li> <li>Council</li> <li>Traditional authorities</li> <li>Civil society personnel</li> <li>Technicians</li> </ul>	<ul style="list-style-type: none"> <li>Logistics</li> <li>Technical materials</li> </ul>	20 000 000
05	<b>Structuring districts into neighbourhoods:</b>	<ul style="list-style-type: none"> <li>Survey needs of development</li> <li>Verify and adopt the proposed limit of the area</li> <li>Search for funding</li> <li>Prepare and approve development plans</li> <li>Implement development plans</li> </ul>		<ul style="list-style-type: none"> <li>Council</li> <li>MINHDU</li> <li>MINDCAF</li> <li>Community</li> <li>Others</li> </ul>		x	x			<ul style="list-style-type: none"> <li>Administration</li> <li>Council</li> <li>Traditional authorities</li> <li>Civil society personnel</li> <li>Technicians</li> </ul>	<ul style="list-style-type: none"> <li>Logistics</li> <li>Technical materials</li> </ul>	30 000 000
06	<b>Development of residential neighbourhoods</b>	<ul style="list-style-type: none"> <li>Survey needs of development</li> <li>Search for funding</li> <li>Prepare and approve development plans</li> <li>Implement development plans</li> </ul>	<ul style="list-style-type: none"> <li>Neighbourhood development funds available</li> <li>Do neighbourhood development</li> </ul>	<ul style="list-style-type: none"> <li>Council</li> <li>MINHDU</li> <li>MINDCAF</li> <li>Community</li> <li>Others</li> </ul>	x	x	x	x		<ul style="list-style-type: none"> <li>Council technicians</li> <li>Private sector developers</li> </ul>	<ul style="list-style-type: none"> <li>Industrial materials (cement; steel rods) -local materials (sand, stones)</li> </ul>	60 000 000
<b>TOTAL</b>												<b>181 000 000</b>

**TABLE 12.2: LAND USE, HOUSING AND LAND DEVELOPMENT**

Code	Action/objective	Activities	Expected results Indicators	Key actors	Periods					Resources		
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)
<b>12210</b>	<b>Urban land use</b>											
01	<b>Development of town centre</b> <ul style="list-style-type: none"> <li>Town cultural centre</li> <li>Development of district shopping centre</li> </ul>	<ul style="list-style-type: none"> <li>Verify and adopt proposed sites</li> <li>Prepare plans and construct</li> </ul>	<ul style="list-style-type: none"> <li>Building plans prepared and approved</li> </ul>	<ul style="list-style-type: none"> <li>Council</li> <li>Developers</li> </ul>	x	x	x	x		<ul style="list-style-type: none"> <li>Council technicians</li> <li>Private sector developers</li> </ul>	<ul style="list-style-type: none"> <li>Industrial materials (cement; steel rods) -local materials (sand, stones)</li> </ul>	45 000 000
02	<b>Development of public offices</b>	<ul style="list-style-type: none"> <li>Verify and adopt proposed sites for public offices,</li> <li>Prepare plans and layout site</li> </ul>	<ul style="list-style-type: none"> <li>Building plans prepared and approved</li> </ul>	<ul style="list-style-type: none"> <li>Council</li> <li>Sector ministries</li> </ul>	x	x	x	x	x	<ul style="list-style-type: none"> <li>Council technicians</li> </ul>	<ul style="list-style-type: none"> <li>Industrial materials (cement; steel)</li> </ul>	150 000 000

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Code	Action/objective	Activities	Expected results Indicators	Key actors	Periods					Resources		
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)
		- Progressive construction of public offices	- Public offices constructed							Private sector developers	rods) -local materials (sand, stones)	
<b>TOTAL</b>											<b>195 000 000</b>	

Code	Action/objective	Activities	Expected results Indicators	Key actors	Period					Resources			
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)	
<b>12220</b>	<b>Housing and Land Development</b>												
01	Social housing programmes	<ul style="list-style-type: none"> <li>- Create enabling environment for participatory approach</li> <li>- Select and acquire proposed sites</li> <li>- Plan and lay out sites</li> <li>- Partially develop and service sites</li> <li>- Allocate plots to the poor</li> <li>- Control and supervise construction</li> <li>- Provide technical and financial assistance.</li> <li>- Create a recreation for destitute</li> </ul>	<ul style="list-style-type: none"> <li>- Sites for social housing selected</li> <li>- Serviced social housing layout</li> <li>- Developed social housing layout</li> </ul>	<ul style="list-style-type: none"> <li>- Council</li> <li>- SIC</li> <li>- Others</li> </ul>			x	x	x		<ul style="list-style-type: none"> <li>- Council technicians</li> <li>- Private sector developers</li> </ul>	Industrial materials (cement; steel rods) -local materials (sand, stones)	200 000 000
02	Council layout	<ul style="list-style-type: none"> <li>- Negotiate with land development partners</li> <li>- Acquire sites proposed</li> <li>- Plan and lay out site</li> <li>- Develop and provide basic utilities</li> <li>- Allocate plots to medium income households</li> <li>- Control development.</li> </ul>	<ul style="list-style-type: none"> <li>- Council layout site selected</li> <li>- Serviced Council layout</li> <li>- Developed Council layout</li> </ul>	<ul style="list-style-type: none"> <li>- Council</li> <li>- MINH DU</li> <li>- MINDCAF</li> <li>- FEICOM</li> <li>- Others</li> </ul>	x	x	x	x	x		<ul style="list-style-type: none"> <li>- Council technicians</li> <li>- Private sector developers</li> </ul>	Industrial materials (cement; steel rods) -local materials (sand, stones)	60 000 000
03	Upgrading of degraded quarters	<ul style="list-style-type: none"> <li>- Survey needs of upgrading</li> <li>- Prepare upgrading plans</li> <li>- Progressively upgrade and rehabilitate the quarters</li> <li>- Identified structures by numbering them.</li> <li>- Streets should be named and numbered</li> <li>- Building lines should be respected</li> </ul>	<ul style="list-style-type: none"> <li>- Degraded quarters identified</li> <li>- Upgrading plans prepared</li> <li>- Quarters structured, streets named, houses numbered</li> </ul>	<ul style="list-style-type: none"> <li>- Council</li> <li>- MINH DU</li> <li>- MINDCAF</li> <li>- FEICOM</li> <li>- Others</li> </ul>	x	x	x	x	x		<ul style="list-style-type: none"> <li>- Council technicians</li> <li>- Private sector developers</li> </ul>	Industrial materials (cement; steel rods) -local materials (sand, stones)	150 000 000
04	Housing promotion schemes - Infilling of vacant plots in inner and middle areas - Development of private layouts - Rehabilitation of dilapidated and	<ul style="list-style-type: none"> <li>- Create programmes to stimulate housing schemes</li> <li>- Develop housing financial schemes</li> <li>- Provide technical assistance to housing developers.</li> </ul>	<ul style="list-style-type: none"> <li>- Vacant plots infilled</li> <li>- Private layouts developed</li> <li>- Housing upgraded</li> </ul>	<ul style="list-style-type: none"> <li>- Council</li> <li>- Others</li> </ul>	x	x	x	x	x		<ul style="list-style-type: none"> <li>- Council technicians</li> <li>- Private sector developers</li> </ul>	Industrial materials (cement; steel rods) -local materials (sand, stones)	5 000 000

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Code	Action/objective	Activities	Expected results Indicators	Key actors	Period					Resources		
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)
	completion of uncompleted houses											
<b>TOTAL</b>												<b>415 000 000</b>

**TABLE 12.3: PUBLIC AND COMMUNITY FACILITIES**

Code	Action/Objective	Activities	Expected Results/ Indicators	Key actors	Period					Resources		
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)
<b>12310</b>	<b>Public and community facilities</b>											
01	Survey of capacities of existing education facilities.	<ul style="list-style-type: none"> <li>- Carry out survey and analyze results</li> <li>- Prepare and enforce rules and regulations for the optimal use of existing educational facilities.</li> </ul>	<ul style="list-style-type: none"> <li>- School hinterlands established</li> <li>- Needs gaps established</li> </ul>	<ul style="list-style-type: none"> <li>- MINEDUB</li> <li>- MINESEC</li> <li>- Council</li> </ul>	x	x				<ul style="list-style-type: none"> <li>- Personnel of</li> <li>- MINEDUB</li> <li>- MINESEC</li> <li>- MINH DU</li> <li>- Council</li> </ul>	- Transport logistics	5 000 000
<b>Allocate and construct new public education facilities</b>												
02	Construct and equip (12) nursery schools within the urban area	- Adopt spatial distribution proposed in plan	- Nursery schools constructed	<ul style="list-style-type: none"> <li>- MINEDUB</li> <li>- Council</li> <li>- FEICOM</li> </ul>	x	x	x	x	x	<ul style="list-style-type: none"> <li>- Tenders Board</li> <li>- Engineers</li> <li>- Architects</li> <li>- Council,</li> <li>- Community</li> <li>- Lay Private Institutions,</li> </ul>	Building materials (sand, cement, stones, timber, zinc, iron rods etc.)	216 000 000
	All Primary schools within the urban area - Provision of adequate personnel and teaching aids, - Renovate structures	Provision of: - Personnel, - Benches and teaching aid - Renovate existing structures	Primary schools constructed	<ul style="list-style-type: none"> <li>- MINEDUB</li> <li>- Council</li> <li>- FEICOM</li> </ul>	x	x	x	x	x	<ul style="list-style-type: none"> <li>- Tenders Board</li> <li>- Engineers</li> <li>- Architects</li> </ul>	Building materials (sand, cement, stones, timber, zinc, iron rods etc.)	180 000 000
	Existing Grammar Schools	<ul style="list-style-type: none"> <li>- Equip all the existing Grammar Schools</li> <li>- Renovate existing structures.</li> <li>- Provide sufficient personnel</li> </ul>	- Existing Grammar Schools are equipped and renovated	<ul style="list-style-type: none"> <li>- MINESEC</li> <li>- Council</li> </ul>	x	x	x	x	x	<ul style="list-style-type: none"> <li>- MINESEC</li> <li>- Lay Private Institutions,</li> </ul>	Building materials (sand, cement, stones, timber, zinc, iron rods etc.)	150 000 000
	Construct and equip (2) secondary school at Naikom area near GTTC	Construct structures, Provision of: - Personnel, - Benches and teaching aid	- Secondary schools constructed	<ul style="list-style-type: none"> <li>- MINESEC</li> <li>- Council</li> </ul>			x	x	x	<ul style="list-style-type: none"> <li>- MINESEC</li> <li>- Tenders Board</li> <li>- Engineers</li> <li>- Architects</li> </ul>	Building materials (sand, cement, stones, timber, zinc, iron rods etc.)	80 000 000



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Code	Action/Objective	Activities	Expected Results/ Indicators	Key actors	Period					Resources		
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)
	Construct and equip (1) technical college towards Bu Road	Construct structures, Provision of: - Personnel, - Benches and teaching aid	- Technical college constructed	- MINESEC - Council			x	x	x	- Tenders Board - Engineers - Architects	Building materials (sand, cement, stones, timber, zinc, iron rods etc.)	60 000 000
<b>12320</b>	<b>Public Health Facilities</b>											
01	- Rehabilitation of Wum District Hospital	- Continue ongoing project - Prepare plans for upgrading construction of unavailable / insufficient structures	- District Hospital rehabilitated and upgraded	- Ministry of Public Health - Council	x	x	x	x		- Ministry of Public Health - Council - MINH DU - MINEPAT	Building materials (sand, cement, stones, timber, zinc, iron rods etc.)	35 000 000
02	Create, construct and equip (6) health centres within the urban areas	- Select and acquire a site - Prepare plans - Construct health centres - Equip and furnish health centres	- New integrated health centres constructed	- Ministry of Public Health - Council	x	x	x	x		- Ministry of Public Health - Council - MINH DU - MINEPAT	Building materials (sand, cement, stones, timber, zinc, iron rods etc.)	250 000 000
03	Create, construct and equip (2) new health posts	- Select and reserve sites - Negotiate for funding - Design and construct - Equip and furnish.	- New health posts constructed	- Ministry of Public Health - Council						- Ministry of Public Health - Council - MINH DU - MINEPAT	Building materials (sand, cement, stones, timber, zinc, iron rods etc.)	40 000 000
<b>12330</b>	<b>Urban market facilities and shopping facilities</b>											
01	Rehabilitation of existing markets stalls and market drainage facilities	- Carry out feasibility studies - Mobilise finances - Prepare plans for upgrading and rehabilitation - Execute programme - Restructure - Structures and establish resource for full occupation	- Market rehabilitated and upgraded	- Council - FEICOM	x	x	x	x	x	- Council	Building materials (sand, cement, stones, timber, zinc, iron rods etc.)	35 000 000
02	Create modern market at New layout WUM area; prepare preliminary requisites (demarcation, drawings, etc.)	- Identify and acquire sites - Design markets - Mobilise funding - Construct the market/shopping centres	- Market/shopping centres constructed	- Council - Individuals/c ommunity	x	x	x	x	x	- Council	Building materials (sand, cement, stones, timber, zinc, iron rods etc.)	100 000 000
03	Create a small weekly/retail market at the New Cattle Market site	- Identify and acquire sites - Design markets - Mobilise funding - Construct the market	- Weekly Market constructed	- Council - Individuals/c ommunity	x	x	x	x	x	- Council	Building materials (sand, cement, stones, timber, zinc, iron rods etc.)	50 000 000
04	Create and construct a	- Identify and acquire sites	- Public Toilet	- Council	x	x				- Council	Building materials	5 000 000

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Code	Action/Objective	Activities	Expected Results/ Indicators	Key actors	Period					Resources			
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)	
	Public Toilet at the New Cattle Market site	- Design public toilet - Mobilise funding and construct	constructed									(sand, cement, stones, timber, zinc, iron rods etc.)	
05	Extend the newly constructed Council Slaughter house	- Construct a new and modern slaughter house extended and constructed	- Modern slaughter house constructed	- Council	x	x	x			- Council		Building materials (sand, cement, stones, timber, zinc, iron rods etc.)	2 000 000
<b>12340</b>	<b>Development of urban parking facilities.</b>												
01	Rehabilitation existing Motor Parks.	- Carry out feasibility studies - Mobilise finances - Prepare plans and programme for rehabilitation - Provide appropriate structures and facilities	- Existing parks rehabilitated and upgraded	- Council - Travel Agencies	x	x	x			- Council		Building materials (sand, cement, stones, timber, zinc, iron rods etc.)	25 000 000
02	Create and construct a Motor Park at the New Council Layout Wum	- Identify and acquire site - Design parks - Mobilise funding	- Funds mobilised	- Wum Council				x	x	- Council		Building materials (sand, cement, stones, timber, zinc, iron rods etc.)	1 000 000
03	Create and construct a motor Park at the New Cattle Market site	- Identify and acquire site - Design parks - Mobilise funding	- Funds mobilised	- Wum Council		x				- Tenders Board - Engineers - Architects		Building materials (sand, cement, stones, timber, zinc, iron rods etc.)	2 000 000
<b>12350</b>	<b>Women's Empowerment (MINPROFF)</b>												
01	Rehabilitation of dilapidated Women's Empowerment Centre buildings and provision of furniture	- Provide Louvers. - Repair leaky roof - Provide chairs	- Fundraising document - Prioritized list of rehabilitation demands. - Rehabilitated buildings - Rehabilitated and furnished Centre	- MINPROFF - Council		x				- MINPROFF - MINEPAT		- Roofing sheets - Louvers	3,000,000
<b>12360</b>	<b>Tourism and Leisure</b>												
01	- Select site and construct MINTOUL Office	- Feasibility studies - Construction of the office	- Usable office structure in place - Funds mobilised	- MINTOUL - MINHDU - Council		x	x			- MINTOUL - MINEPAT		Building materials (sand, cement, stones, timber, zinc, iron rods etc.)	15 000 000
02	Protection of Lake Wum - Annul land certificate issued to an individual	- Annul land certificate - Erect tourist structures	- Usable structure in place - Funds mobilised	- MINTOUL - Council - MINDCAF	x	x	x	x		- MINTOUL - MINDCAF - Council		Building materials (sand, cement, stones, timber, zinc, iron rods etc.)	10 000 000

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Code	Action/Objective	Activities	Expected Results/ Indicators	Key actors	Period					Resources		
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)
	to erect structures around Lake Wum			- MINATD							<i>etc.)</i>	
03	Construction of a modern hotel in Wum	- Feasibility studies - Construction of the hotel	- Modern hotel structure in place	- MINTOUL - MINHDU - Council				x	x	- FEICOM - Architects - Builders - Carpenters	- Drawing tools - Building materials	200 000 000
<b>12370</b>	<b>Culture and Arts</b>											
01	Select site and construct MIINCULT office	- Feasibility studies - Construction of the office	- Usable office structure in place	- MINCULT - MINHDU - Council		x	x			- Architects - Builders - Carpenters	- Drawing tools - Building materials	15 000 000
02	Existing village halls	Continue constructions	-	- Communities	x	x	x	x	x	- VDAs - Council	- Drawing tools Building materials	5 000 000
03	Wum cultural hall	- Identify and delimit the space - Develop space - Equip and furnish parks	- Funds mobilised	Wum Council	x	x	x	x	x	- Tenders Board - Engineers - Architects - Council	Building materials <i>(sand, cement, stones, timber, zinc, iron rods etc.)</i>	10 000 000
<b>12380</b>	<b>Other Public and Community Facilities</b>											
01	Waste disposal - Site selection as shown in the land use plan	- Feasibility studies carried out - Demarcate and survey	- Waste disposal site selected and demarcated, - Plans of site available	- Council	x	x				- Tenders Board - Engineers - Architects - Council - Land Commission	Transport logistics	1 000 000
02	Council Cemetery - Site selection as shown in the land use plan	- Feasibility studies carried out - Demarcate and survey selected site	- Council cemetery site selected and demarcated, - Plans of site made available	- Council	x	x				- Tenders Board - Engineers - Architects - Council - Land Commission	Transport logistics	1 000 000
03	Fire fighting service - Site selection as shown in the land use plan	- Feasibility studies - Demarcate and surveys, all drawings prepared	- Fire fighting service site selected and demarcated, - Plans of site made available	- Council	x					- Tenders Board - Engineers - Architects - Council - Land Commission	Transport logistics	1 000 000
04	Construct and equip a Multi-Media Telecentre close to the Council office	- Feasibility studies - Construction of the office - Equip with internet and other IT equipment	- Multi-Media Telecentre constructed and fully equipped	- Council		x	x			- Tenders Board - Engineers - Architects - Council	Building materials <i>(sand, cement, stones, timber, zinc, iron rods etc.)</i>	100 000 000
05	Multipurpose Youth Empowerment Centre - Site selection	- Feasibility studies - Construct and equip - Demarcate and surveys, all drawings prepared	- Multipurpose Youth Empowerment Centre	- Council		x	x			- Tenders Board - Engineers - Architects - Council	Building materials <i>(sand, cement, stones, timber, zinc, iron rods etc.)</i>	25 000 000

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Code	Action/Objective	Activities	Expected Results/ Indicators	Key actors	Period					Resources			
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)	
			constructed and fully equipped										
06	Industrial site - Site selection as shown in the land use plan	- Feasibility studies - Demarcate and survey, all drawings prepared	- Industrial site is selected and demarcated	- Council	x	x					- Council personnel - Land Commission	Transport logistics	1 000 000
07	Renovation of (14) Palaces found within the urban Area	- Feasibility studies - Renovate dilapidated palace structures	- Palace structure are renovated	- MINCULT - MINH DU - Council - VDAs			x	x	x		- Technician - Village Population - VDAs - Council	Building materials (sand, cement, stones, timber, zinc, iron rods etc.)	28 000 000
<b>Total</b>												<b>1 651 000 000</b>	

**TABLE 12.4: URBAN NETWORKS AND INFRASTRUCTURE**

Road code Hierarchy	Length (km)	Action	Activities	Expected Results Indicators	Key actors	Period					Resources		
						Y1	Y2	Y3	Y4	Y5	Human	Materials	Financial (F CFA)
<b>Primary</b>													
Ring Road (N11) End of tar GHS-towards Bamenda	5.369	- Rehabilitation - Tarring	- Studies - Search for partners - Contracting - Construction of culverts - Construction and rehabilitation of bridges	- Improvement of circulation - Reduction in travel time - Reduction of accidents	Council MINH DU MINTP	x			x	x	- Qualified personnel - Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	1 600 000 000
Ring Road (N11) Tarred	3.36	- Routine manual maintenance	- Bush clearing - Clean and repairs structures	- Improvement in drainage	Council MINH DU MINTP		x	x	x	x	Qualified personnel		30 000 000
Ring Road (N11) P&T Junction-towards Weh	8.787	- Rehabilitation - Tarring - Construction of 02 culverts - Construction of 01 bridges - Rehabilitation 01	- Studies - Search for partners - Contracting - Construction of culverts - Construction and rehabilitation of bridges	- Improvement of circulation - Reduction in travel time - Reduction of accidents	Council MINH DU MINTP	x	x	x			Qualified personnel - Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	2 250 000 000
<b>Secondary</b>													
R2 Bu Road	5,10	- Maintenance - Construction of two culverts - Rehabilitation of 02 existing	- Studies - Search for partners - Contracting - Construction of culverts	- Improvement of circulation - Reduction in travel time - Reduction of	Council MINH DU MINTP	x	x	x	x	x	Qualified personnel - Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	1 500 000 000

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Road code Hierarchy	Length (km)	Action	Activities	Expected Results Indicators	Key actors	Period					Resources		
						Y1	Y2	Y3	Y4	Y5	Human	Materials	Financial (F CFA)
		bridges -Tarring	-Construction and rehabilitation of bridges	accidents									
R3 Commercial Street	0,80		-										
R4 Council Road <i>PTT-Naikom junction</i>	0.83	Routine maintenance	- Cleaning of drainage structures		Council MINHDU MINTP		x	x	x	x	Qualified personnel		3 000 000
R4 Council Road <i>Naikom junction- SDO's residence</i>	3.4	-Rehabilitation -Repairs culver -tarring	- Reprofilng - Construction of culverts - Tarring work	-Improvement of circulation -Reduction in travel time -Reduction of accidents	Council MINHDU		x	x	x		Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	850 000 000
R5 Ngouh Road Wanangwen-Nguoh (Aku settlement)	6,10	- Rehabilitation - Construction of 02 Culverts - Construction 02 box Culverts	- Grading - Construction of culverts -Construction of bridges	-Improvement of circulation -Reduction in travel time -Reduction of accidents	Council MINHDU		x	x	x	x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	88 880 000
R6 Kecha/Kuk Road <i>G.T.H.S. Junction- G.S. Ngong-Back to G.T.H.S. Junction</i>	10,57	-Maintenance -Drainage	-Grading -Drainage	-Improvement of circulation -Reduction in travel time -Reduction of accidents	Council MINHDU MINTP		x	x	x	x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	84 560 000
R7 Mmen Road	4,29	- Maintenance	- Grading - Clean and repair structures	-Improvement of circulation -Reduction in travel time -Reduction of accidents	Council MINHDU MINTP	x	x	x	x	x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	33 600 000
R8 G.H.S. Wum- JOPACC	4,69	Rehabilitation - construction of 01 culvert	- Opening - Grading and compaction - Culvert construction	-Improvement of circulation -Reduction in travel time - Reduction of accidents	Council MINHDU MINTP	x	x	x	x	x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	34 000 000
R9 Ukpwa Road	3,59	-Maintenance	-Grading -Drainage	-Improvement of circulation -Reduction in travel time	Council MINHDU MINTP	x	x	x	x	x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	22 000 000

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Road code Hierarchy	Length (km)	Action	Activities	Expected Results Indicators	Key actors	Period					Resources		
						Y1	Y2	Y3	Y4	Y5	Human	Materials	Financial (F CFA)
				- Reduction of accidents									
<b>Tertiary</b>													
R10 Palace Avenue Magha Palace - 3 Corner Kesu	0.55	Rehabilitation	On contract										
R10 Palace Avenue Court yard- 3 corner Kesu	1.5	Rehabilitation	Grading drainage	-Improvement of circulation -Reduction in travel time -Reduction of accidents	Council MINHDU	x	x	x	x	x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	3 000 000
R11 Trinity Road Court Yard - Holy Trinity - Market	1,55	-Rehabilitation - Replacement of 02 existing culverts	On contract										20 000 000
R12 New Layout Road MBA-Bikom quarter	1,45	Rehabilitation	- Opening - grading - drainage	-Improvement of circulation -Reduction in travel time -Reduction of accidents	Council MINHDU	x	x	x	x	x	Qualified personnel -Expert	- Industrial materials ( cement; steel rods) -local materials (sand, stones)	9 000 000
R13 Lake Nyos Hotel-3 Corner Kesu	0,46	- Rehabilitation	-On contract									- Industrial materials (cement; steel rods) -local materials (sand, stones)	
<b>Existing Access Roads</b>													
R14	0,41	Rehabilitation	- Studies - Grading - Drainage	-Improvement of circulation -Reduction in travel time -Reduction of accidents	Council MINHDU		x		x	x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) -local materials ( sand, stones)	1 640 000
R15	2,59	- Rehabilitation - maintenance of 01 culvert	- Studies - Grading - Drainage -Cleaning and repairs of 01 culvert	-Improvement of circulation -Reduction in travel time -Reduction of accidents	Council MINHDU	x		x		/	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	22 360 000
R16	1,85	- Rehabilitation -Construction of 01 culvert	-Grading - drainage -Cleaning and repairs	-Improvement of circulation -Reduction in travel	Council MINHDU		x	x	x	x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand,	13 400 000

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Road code Hierarchy	Length (km)	Action	Activities	Expected Results Indicators	Key actors	Period					Resources		
						Y1	Y2	Y3	Y4	Y5	Human	Materials	Financial (F CFA)
			of 01 culvert	time - Reduction of accidents								stones)	
R17	1,06	Rehabilitation	- Grading - drainage	-Improvement of circulation -Reduction in travel time -Reduction of accidents	-Council -MINHDU	x	x	x	x	x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	4 240 000
R18	1,58	- Rehabilitation - Maintenance 02 culverts	- Studies - Grading - Drainage - Cleaning and repairs of 02 culvert	-Improvement of circulation -Reduction in travel time -Reduction of accidents	-Council -MINHDU -MINTP	x	x	x	x	x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	6 160 000
R19	2,49	- Rehabilitation - construction of 01 culvert	- Studies - Grading - Drainage - Construction of 01 culvert	-Improvement of circulation -Reduction in travel time -Reduction of accidents	-Council -MINHDU -	x	x	x	x	x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	9 600 000
R20	1,21	- Rehabilitation -Drainage	- Studies - Grading - drainage	-Improvement of circulation -Reduction in travel time - Reduction of accidents	-Council -MINHDU -	x	x	x	x	x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	4 840 000
R21 Zion Church Road	0,59	- R Rehabilitation -Drainage	- Studies - Grading - drainage -	-Improvement of circulation -Reduction in travel time - Reduction of accidents	-Council -MINHDU		x	x	x	x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	2 360 000
R22 Lake Wum Road	1,92	- Rehabilitation -Drainage	- Grading - drainage -	-Improvement of circulation -Reduction in travel time - Reduction of accidents	-Council -MINHDU		x		x		Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	7 680 000
R23 Echuan Road	1,89	- Rehabilitation -Drainage	- Grading - drainage -	-Improvement of circulation -Reduction in travel	-Council -MINHDU -MINTP		x		x		Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand,	7 200 000



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Road code Hierarchy	Length (km)	Action	Activities	Expected Results Indicators	Key actors	Period					Resources		
						Y1	Y2	Y3	Y4	Y5	Human	Materials	Financial (F CFA)
				time - Reduction of accidents								stones)	
R24 Prison Road	0,81	- Rehabilitation - Drainage	- Grading - drainage -	-Improvement of circulation -Reduction in travel time - Reduction of accidents -	- Council - MINHDU		x		x		Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	3 240 000
R25 New Bridge Road	0,51	- Rehabilitation - maintenance of 01 culvert	- Grading - drainage - Cleaning and repairs of 01 culvert	-Improvement of circulation -Reduction in travel time - Reduction of accidents	- Council - MINHDU		x		x		Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	2 040 000
R26	1,13	- Rehabilitation		-							Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	18 620 000
-													
<b>Proposed Access road</b>													
R27	1,64	- Opening - construction of 01 bridge	- Studies - Bulldozing - Road formation - Construction of bridge	-Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	79 560 000
R28	1,65	- Opening	- Studies - Bulldozing - Road formation -	-Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	21 450 000
R29	2,87	- Opening - construction of 01 bridge	- Studies - Bulldozing - Road formation - Construction of bridge	-Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	90 480 000
R30	2,67	- Opening - construction of 01 bridge	- Studies - Bulldozing - Road formation - Construction of bridge	-Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	89 900 000
R31	0,77	- Opening - construction of 01 culvert	- Studies - Bulldozing - Road formation - Construction of culvert	-Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	16 080 000



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Road code Hierarchy	Length (km)	Action	Activities	Expected Results Indicators	Key actors	Period					Resources		
						Y1	Y2	Y3	Y4	Y5	Human	Materials	Financial (F CFA)
R32	1,99	- Opening - construction of 01 culvert	- Studies - Studies - Bulldozing - Road formation - Construction of culvert	- Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	27 860 000
R33	1,28	Opening	- Bulldozing - Road formation -	- Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	17 920 000
R34	1,49	Opening	- Bulldozing - Road formation -	- Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	20 860 000
R35	0,93	Opening	- Bulldozing - Road formation -	- Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	13 020 000
R36	1,31	Opening	- Bulldozing - Road formation -	- Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	18 340 000
R37	0,99	Opening	- Bulldozing - Road formation	- Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	13 860 000
R38	0,34	Opening	- Bulldozing - Road formation	- Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	4 760 000
R39	2,91	Opening	- Bulldozing - Road formation	- Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	40 740 000
R40	1,23	Opening	- Bulldozing - Road formation	- Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	17 220 000
R41	0,69	Opening	- Bulldozing - Road formation	- Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	8 400 000
R42	1,64	Opening	- Bulldozing	- Improvement of	Council		x	x			Qualified	- Industrial materials	

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Road code Hierarchy	Length (km)	Action	Activities	Expected Results Indicators	Key actors	Period					Resources		
						Y1	Y2	Y3	Y4	Y5	Human	Materials	Financial (F CFA)
			- Road formation -	circulation - Good connectivity	MINHDU						personnel -Expert	(cement; steel rods) - local materials (sand, stones)	22 960 000
R43	1,20	Opening	- Bulldozing - Road formation -	- Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	16 800 000
R44	0,92	Opening construction of 01 culvert	- Bulldozing - Road formation - Construction of culvert	- Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	12 880 000
R45	2,49	Opening	- Bulldozing - Road formation -	- Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	33 600 000
R46	0,86	Opening	- Bulldozing - Road formation - Construction of bridge	- Improvement of circulation - Good connectivity	Council MINHDU		x	x			Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	62 040 000
R47	1,40	Opening	- Bulldozing - Road formation -	- Improvement of circulation - Good connectivity	Council MINHDU		x		x		Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	19 600 000
R48	0,67	- Opening - construction of 01 bridge	- Bulldozing - Road formation - Construction of bridge	- Improvement of circulation - Good connectivity	Council MINHDU		x		x		Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	59 380 000
R49	2,13	Opening	- Bulldozing - Road formation -	- Improvement of circulation - Good connectivity	Council MINHDU		x		x		Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	29 820 000
R50	0,87	- Opening - construction of a culvert	Bulldozing Road formation Construction of culvert	- Improvement of circulation - Good connectivity	Council MINHDU		x		x		Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	12 180 000
R51	1,05	- Opening - construction of a culvert	- Bulldozing - Road formation - Construction of culvert	- Improvement of circulation - Good connectivity	- Council - MINHDU -		x		x		Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	14 000 000
R52	0,99	Opening	- Bulldozing - Road formation	- Improvement of circulation - Good connectivity	- Council - MINHDU -		x		x		Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand,	13 860 000

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Road code Hierarchy	Length (km)	Action	Activities	Expected Results Indicators	Key actors	Period					Resources		
						Y1	Y2	Y3	Y4	Y5	Human	Materials	Financial (F CFA)
												stones)	
R53	1,34	- Opening - construction of a bridge	- Bulldozing - Road formation - Construction of bridge	- Improvement of circulation - Good connectivity	- Council - MINH DU -		x		x		Qualified personnel - Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	18 760 000
R54	1,29	- Opening - construction of a culvert	- Bulldozing - Road formation - Construction of culvert	- Improvement of circulation - Good connectivity	- Council - MINH DU -		x		x		Qualified personnel - Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	18 060 000
R55	0,39	Opening	- Bulldozing - Road formation	- Improvement of circulation - Good connectivity	- Council - MINH DU -			x		x	Qualified personnel - Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	5 460 000
R56	0,88	- Opening - Construction of 01 a culvert	- Bulldozing - Road formation - Construction of culvert	- Improvement of circulation - Good connectivity	- Council - MINH DU -			x		x	Qualified personnel - Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	12 320 000
R57	2,47	- Opening - construction of 01 culvert - construction 01 bridge	- Bulldozing - Road formation - Construction of culvert - Construction of bridge	- Improvement of circulation - Good connectivity	- Council - MINH DU -			x		x	Qualified personnel - Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	34 580 000
R58	0,59	Opening	- Bulldozing - Road formation -	- Improvement of circulation - Good connectivity	- Council - MINH DU -			x		x	Qualified personnel - Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	8 260 000
R59	1,84	- Opening - Replace existing bridge	- Bulldozing - Road formation - Construction of bridge	- Improvement of circulation - Good connectivity	- Council - MINH DU -			x		x	Qualified personnel - Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	25 760 000
R60	2,69	- Opening - construction of a culvert	- Bulldozing - Road formation - Construction of bridge	- Improvement of circulation - Good connectivity	- Council - MINH DU -			x		x	Qualified personnel - Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	37 660 000
R61	0,55	- Opening	- Bulldozing - Road formation	- Improvement of circulation - Good connectivity	- Council - MINH DU -			x		x	Qualified personnel - Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	7 420 000
R62	0,74	- Opening	- Bulldozing - Road formation	- Improvement of circulation - Good connectivity	- Council - MINH DU -			x		x	Qualified personnel - Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	10 360 000

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Road code Hierarchy	Length (km)	Action	Activities	Expected Results Indicators	Key actors	Period					Resources		
						Y1	Y2	Y3	Y4	Y5	Human	Materials	Financial (F CFA)
R63	1,22	-Opening -construction of a culvert	-Bulldozing -Road formation -Construction of culvert	-Improvement of circulation -Good connectivity	-Council -MINHDU			x		x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	17 080 000
R64	1,02	-Opening -construction of 02 culverts	-Bulldozing -Road formation -Construction of culverts	-Improvement of circulation -Good connectivity	-Council -MINHDU				x	x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	14 280 000
R65	0,77	-Opening	-Bulldozing -Road formation	-Improvement of circulation -Good connectivity	-Council -MINHDU -				x	x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	10 780 000
R66	1,33	-Opening	-Bulldozing -Road formation	-Improvement of circulation -Good connectivity	-Council -MINHDU -				x	x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	18 620 000
R67	1,00	-Opening -Construction of 01 culvert	-Bulldozing -Road formation -Construction of culvert	-Improvement of circulation -Good connectivity	-Council -MINHDU -				x	x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	14 000 000
R68	1,74	-Opening	-Bulldozing -Road formation -	-Improvement of circulation -Good connectivity	-Council -MINHDU -				x	x	Qualified personnel -Expert	- Industrial materials (cement; steel rods) - local materials (sand, stones)	24 360 000

Other Networks

Code	Action/objective	Activities	Products/Indicators Results	Key actors	Periods					Resources		
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)
1201	<b>Water</b> 1)Extension of existing water supply network 2) Rehabilitation of existing stand taps 3) Sensitization of population on the management of existing stand taps 4) Creation of a follow up committee for stand taps and water treatment	-Feasibility studies for the extension of water supply network -Mobilisation of funds -Search for partners -tenders -supervision and follow up -	-Increased in the length of water supply network -More functional stand taps -Follow up committee installed -Reduced water borne diseases	-Council -MINHDU -CDE -CAMWATER -Populations -Traditional chiefs -Follow up committee -MINEE -MINTP -PNDP	x	x	x	x	x	Qualified personnel	Industrial materials (cement, steel, nails) - local materials (sand, stones)	50 000 000

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Code	Action/objective	Activities	Products/Indicators Results	Key actors	Periods					Resources		
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)
1202	<b>Electricity</b> Installations	- Alternative source of energy for domestic usage -Extension of electricity network	-	-Council -MINHDU -AES SONEL						Qualified personnel		150 000 000
1203	<b>Drainage</b> Construction of drainage network	-Studies and preparation of plans -Construction of drainage structures -Maintenance of existing drainage structures	-	- Council -MINHDU	x	x	x	x	x	Qualified personnel	- Industrial materials (cement, steel, nails) - local materials (sand, stones) Specialised equipment	120 000 000
1204	<b>Sewage system</b> Construction of sewage collection and treatment	-Studies and preparation of plans -Acquisition of land -Sensitization of the public	- Reduced risks of pollution of environment and ground water -Reduced risks of diseases	-Council -MINHDU	x	x	x	x	x	Qualified personnel Experts	Land Special equipment	100 000 000
1205	<b>Facilitate access to new information and communication technologies</b>											
	1) Equipment of multimedia centre 2) Sensitization and training	- Creation of follow up committee - Creation of bank account - Search for partners - Acquisition of consultants	- Existence of multimedia centre - Easy access to new information technology and communication - Increased number and functional internet centres	-Follow-up committee -Populations -Council -Consultants -CAMTEL	x	x	x	x	x	Qualified personnel Experts, Trainers	Computer equipment- Infrastructures	200 000 000
<b>TOTAL</b>											<b>735 000 000</b>	

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**TABLE 12.5: URBAN ENVIRONMENT**

Code	Action/objective	Activities	Expected results Indicators	Key actors	Period					Resources		
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)
<b>12510</b>	<b>Urban Environment</b>											
01	Protected areas	- Identify protected areas - Hire a consultant to study and propose rules and regulations. - Examine and approve rules and regulations - Implement rules and regulations - Continuous follow up	- Protected areas identified - Rules and regulations on protected areas prepared	- Local population - Council - MINEPDED - MINFOF	x	x	x	x	x	Forest technicians from MINEPDED and MINFOF, Council and local population	- Tree nursery - Grass - Manure	25 000 000
02	Preparation of town council rules and regulations for protected areas	- Identify protected areas - Hire a consultant to study and propose rules and regulations. - Examine and approve rules and regulations - Implement rules and regulations - Continuous follow up	- Town council rules and regulations for protected areas prepared	- Local population - Council - MINEPDED - MINFOF		x	x	x	x	Forest technicians	Management plan	
03	Digitise protected areas	- Train GIS personnel - Acquire images for the whole town and prepare the integrated plans. - Make images available to services concerned	- Protected area images acquired and digitised	- Council - MINH DU		x				GIS Expert, Delegates of MINEPDED and MINFOF	GPS	
04	Prevention of the occupation of protected areas	Reinforce building permit and development control measures.	- Protected areas protected from construction	- Council - MINEPDED - MINFOF	x	x	x	x	x	Council police/sanitary inspector	Fine forms	
05	Development of urban open spaces	Declare urban open space	- Urban open spaces identified	- Council - MINH DU MINEPDED	x	x	x	x		Environmentalist	Park benches, pavement blocks, grass, trees and water	50 000 000
06	Preparation of town open space management plan	- Carry out a survey of existing open spaces - Prepare a plan of town open spaces - Acquire and reserve sites for formal open spaces.	- Management plan for town open spaces prepared	- Council - MINEPDED - MINH DU		x	x	x		Forest technician/environmentalist	Map/design of open space	
07	Progressively develop town open spaces	- Design each open space - Mobilise funds for open space development - Develop each open space - Prepare and enforce procedures, rules and regulations for urban open space	- Funding for open spaces available - Open spaces developed	- Council - MINEPDED - MINFOF		x	x	x	x	Forest technician/environmentalist	Park benches, pavement blocks, grass, trees and water	
08	Potable water	Provision of clean potable water in order to reduce the incidence of water borne diseases	- Potable water available and accessible	- Council - MINEE		x				Water technician	Pipes, gum, stones, cement, sand	100 000 000

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Code	Action/objective	Activities	Expected results Indicators	Key actors	Period					Resources			
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)	
												and trees	
10	Environmental post	Creation and construction of an Environmental control post in MINEPDED Wum	- Environmental control post created and constructed	-MINEPDED		x					Environmentalists/ Forest technician	Stones, cement, sand, pipes and gum	30 000 000
11	Tourism	Reinforcement of the tourism office to sell the image of Cameroon	- Tourism office better equipped and staffed	- MINTOUR - Council		x	x	x			Tourist guide	- Tourist guides	40 000 000
13	Clean-up campaigns	Institute regular clean up campaigns	- Regular clean up campaigns Institute	- Population - DO - Mayor	x	x	x	x	x	DO, SDO, Mayor, and local population	Cutlasses, hoes, spades and collection van	100 000 per campaign per month	
014	Town greening	Beautification of the streets with ornamental trees	- Town streets beautified with ornamental trees	- MINEPDED - MINFOF - Council		x	x	x		Forest technician/environmentalist	Grass, ornamental trees	10 000 000	
015	Solid waste management plan	- Provision of a land fill site for disposal of non-biodegradable waste; - Sorting of biodegradable waste for use as manure on farms and gardens; - Recycling of plastics, bottles, cans and iron; - Provision of garbage disposal facilities for various types of waste: plastics, bottles, and biodegradable wastes; Polluter pay principle to be strictly applied to defaulters who do not sort their waste, or dump it in the wrong place;	- Solid waste management plan prepared and implemented	- Population - Council - MINEPDED - NGOs	x	x	x	x	x	Environmentalists, Council	Garbage cans and vans	50 000 000	
016	Public consultation and hearing on projects likely to have adverse environmental effects	EIA document with observations and pre-occupations of the population incorporated and made available for consultation at the council.	- Public consultations held for relevant projects	- MINEPDED - Council	x	x	x	x	x	Environmentalists	Regulatory texts on EIA	3 000 000 per public consultation	
017	Town hygiene and sanitation	- Reinforced rules and regulations - Reorganise management of solid waste - Policy on waste discharge by individual residents	-	- Population - Council - MINEPDED	x	x	x	x	x	Sanitary inspectors, environmentalist and local population	Regulatory texts on hygiene and sanitation	10 000 000	
018	Sensitisation of the public on hygiene and sanitation	- Improve on track cans at dump sites - Regular collection of waste - Proper management of dump sites	- Public sensitised on hygiene and sanitation		x	x	x	x	x	Sanitary inspectors and environmentalist			
019	Prepare and enforce procedures, rules and	-	- Procedures, rules and regulations on		x	x	x	x	x	Sanitary inspectors and			

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Code	Action/objective	Activities	Expected results Indicators	Key actors	Period					Resources		
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)
	regulations on town hygiene and sanitation		town hygiene and sanitation prepared and enforced							environmentalist		
020	Carry out regular inspection of premises.		- Regular inspection of premises carried out.		x	x	x	x	x	Sanitary inspectors and environmentalist		
021	Prepare and implement town hygiene and sanitation action plans		- Town hygiene and sanitation action plans prepared and implemented		x	x	x	x	x	Sanitary inspectors and environmentalist		
022	Create a town hygiene and sanitation fund		- Town hygiene and sanitation fund created		x	x	x	x	x	Council, MINSANTE, MINEPDED		
023	Prepare and implement town solid waste management strategic plan		- Town strategic plan for solid waste management prepared and implemented		x	x	x	x	x	Council, MINEPDED and sectorial ministries		
<b>12520</b>	<b>Sewage Management</b>											
01	Organise the evacuation, treatment and disposal of sewage	-Select site for treatment station -Design and construct facilities -Commission	-Sewage evacuation, treatment and disposal organised	-Council -MINHDU -MINEPDED	x	x	x			Environmentalists/ sanitary inspectors	Treatment plant, sewage transportation and disposal vans	75 000 000
02	Construct and operate a sewage treatment station in the new Council Layout	-Do feasibility study of the proposed site -Develop and commission facility	-Sewage treatment station constructed in the new Council Layout	-MINEPDED -Council -MINHDU			x	x				
		-	<b>GRAND TOTAL</b>	-								<b>304 200 000</b>



**PROPOSED PROJECTS**

Code	Action/objective	Activities	Expected results Indicators	Key actors	Period					Resources		
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)
12507	Rehabilitation of degraded sites	Plant ornamental and water friendly trees	Degraded sites rehabilitated	- Council - MINATD - Local NGO		x	x	x				15 000 000
12511	Development of Lake Wum tourist site	Construct and equip tourist site around Lake Wum	Lake Wum tourist site developed	- Council - MINATD		x	x	x	x			40 000 000
12514	Development of town greens	Planting of flowers, ornamental plants, pavement of paths and installation of park benches	Town greens developed	- Council - MINATD - Local NGO		x	x	x				50 000 000
<b>GRAND TOTAL</b>												<b>105 000 000</b>

**TABLE 12.6: ECONOMIC BASE AND COUNCIL FINANCE**

Code	Action/objective	Activities	Expected results Indicators	Key actors	Period					Resources		
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)
<b>12610</b>	<b>Council's records</b>											
01	Council's records	- Update Council's records for the present and previous years for consultation	- Council records systematically updated	- Council	x	x	x	x		Archivists	Computers Archives	
<b>12620</b>	<b>Economic Base</b>											
01	Manufacturing	- Allocate funds for the building of a fertiliser/animal feed firm - Sensitize the population on the production of palm-nuts and farm tools for sale in the local and neighbouring markets - Identify markets for the sale of farm tools, and animal feeds/fertilizers	-	- Council - MINADER - MINPMESSA - MINMIDT	x	x	x	x		- Engineers - Technicians - Architect - Sale agents	- Building materials - Feed ingredients - Fertiliser ingredients	
02	Processing, transformation and packaging of produce and products	- Sensitize the public to produce maize flour, fruit juice, drinks, confectionaries and cassava flour in large scale for sale in the neighbouring markets - Identify markets for some of these products using development partners and the internet	- Food transformation and packaging industries set up and operational	- The Council - The business community of Wum Town - MINPMESSA - MINCOMMERCE	x	x	x	x		- Engineers - Technicians - Sale agents	- Processing equipment - Computers - Internet connexions	
03	Maintenance industry	- Work with the necessary partners to improve on power/energy supply - Work with the government to hasten up	-	- The Council - AES SONEL - MINTP	x	x	x	x		- Engineers - Technicians - Environmenta	- Transformers - Public work equipments	

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Code	Action/objective	Activities	Expected results Indicators	Key actors	Period					Resources		
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)
		the construction of the Wum-Bamenda road		- Elites of the Wum - The parliamentarian representing Wum						list - Administrative authorities		
04	Wood processing and transformation	- Foster co-operation with the delegation of forestry, the timber exploiting company (CAFECO) and the local community - Sensitize public to engage in this sub-sector for their own private needs through development meetings with the local development committee - Implement contracts with development partners	- Wood processing industry set up	- The Council - The timber exploiting companies (CAFECO) - Ministry of forestry - The local community	x	x	x	x		- Engineers - Technicians - Unskilled labour - Population - Contractors	- Stationery - Tools	
05	Development of a modern financial centre	- Speed-up lobbying for the construction of the Wum-Bamenda road - Encourage setting up of financial institutions - Sensitize the public to save rather than hoard money	- Modern Financial Centre Developed	- The Council - The public - Economic operators - MINFI	x	x	x	x		- Engineers - Technicians - Population	- Public work equipments - Building materials - Stationery	
06	Development of an urban centre	- Implement the clean-up campaign - Sensitize public and lobby with public to improve on this sector as suggested as concerns sports and recreation, entertainment and hotel and catering services - Lobby for a speed-up in the construction of the Wum- Bamenda road	-	- The Council - The business community - MINH DU - MINDCAF	x	x	x	x		- Engineers - Technicians - Population	- Stationery - Means of movement	
07	Tourism	- Sensitize public on the eventual development of this sub-sector	Public sensitised on tourist development opportunities	- The Council - Economic operators - MINTOUL	x	x	x	x		- Mayor - Administrative authorities - Tourism promoters - Populations	- Building materials	
08	Organisation of the marketing of produce and products	- Search for markets for these products both within the south west and other regions of the country, and neighbouring Nigeria - Sensitize the public to improve on the scale of production	Organised structure for marketing produce and products set up	- The Council - Development partners - MINADER - MINCOMMERCE	x	x	x	x		- Marketing agents - Sale agents	Office stationery	
09	Construction industry	- Lobby for the development of the urban infrastructure - Encourage building of modern housing	Modern housing units	- The Council - The ministry of public works	x	x	x	x		- Engineers - Architect - Technicians	Building materials	

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Code	Action/objective	Activities	Expected results Indicators	Key actors	Period					Resources		
					Y1	Y2	Y3	Y4	Y5	Human	Material	Financial (F CFA)
		units	under construction	-The parliamentarian for Wum -The elites -MINH DU -MINDCAF						-Economic operators		
<b>12630</b>	<b>Local finance</b>											
01	Local finance	-Increase level of local finance	-Level of local finance increased	-Council -Business operators	x	x	x	x		-Finance service -Council treasurer -Financial experts	-Computers -Office stationery	
<b>GRAND TOTAL</b> -												

## CHAPTER THIRTEEN: SIMPLIFIED ENVIRONMENTAL IMPACT MANAGEMENT PLAN

### 13.1 Introduction

When all the projects proposed shall have been implemented, the impacts they leave on the environment should not make the environment any worse than before their implementation. The management of these impacts as set don by the law is discussed in this chapter.

### 13.2 Environmental management framework

The Environmental Management Law in Cameroon (No. 96/12 of 5th August, 1996) stipulates in chapter 11, Article 17, that the promoter or owner of any project which may endanger the environment owing to its dimension, nature or impact of its activities on the natural environment, shall carry out an impact assessment, in conformity with the prescriptions of the specifications. This assessment shall determine the direct and indirect incidence of the said project on the ecological balance of the area where the project is located, the physical environment and quality of life of the population, and the impact on the environment in general. To this effect, a subsequent text of application, Ministerial Order No. 0070/MINEP of 22nd April, 2005, specifies the categories of projects liable to either a detailed or summary Environmental Impact Assessment (EIA).

The environmental aspects are not usually given much attention while preparing development plans. This has led to haphazard and uncontrolled development activities leading to overuse, congestion, incompatible land use and consequently creating high risk environments to the city and rural dwellers. Deterioration of the natural and socio-economic living conditions specifically includes:

- Overcrowding;
- Congestion;
- Lack of sufficient water supply;
- Unhygienic living conditions;
- Air and noise pollution.

The best use of the land needs to be assessed in terms of not only the economic aspects but also in terms of the environmental aspects in order to ensure sustainable development because the environment constitutes the base on which all activities are carried out.

Lack of proper land use control results in poor land use compatibility with houses being constructed haphazardly on areas such as steep slopes and marshy areas which are highly prone to disaster.

The overall objective of the Summary Urban Development Plan is to incorporate environmental considerations for improving environmental quality.

The specific objectives are: -

- To map the characteristics and environmental profile so as to identify the environmental pollution hotspots;
- To prepare an environmental management plan that includes rehabilitation and mitigation measures; and
- To recommend guidelines for environmentally compatible land use planning.

### 13.3 Main potential impacts

From the projects contained in the planning proposals, the main impacts and socio-environmental mitigation measures are as follows:

- 1) The main potential impacts and mitigation measures;
- 2) The socio- environmental management plan.

Table 13.1: Simplified Environmental Management Plan

<b>PROPOSED PROJECTS DEALING WITH THE CONSTRUCTION OR REHABILITATION OF BASIC COMMUNITY INFRASTRUCTURE</b> (e.g. Schools, classrooms, health centres, markets, warehouses, community halls, women training centres, etc)		
Proposed Projects	Potential socio-environmental impacts	Mitigation measures
<b>Basic education</b> Construction 12 nursery schools in the Wum Urban area  <b>Secondary education</b> Construction of 02 secondary Grammar schools at Naikom and Illum (the proposed Council Layout site)  <b>Technical education</b> Creation of a GTC along Bu road  <b>Public health</b> Creation and construction of 06 health centres - 01 at GRA (up station) - 01 around GHS - 01 at the proposed council layout - 01 at Ngough Wanangwen - 01 along Bu road around Ko-Oh - 01 at Bang Magha - Construction of 02 health posts - 01 at WADA area and - 01 between GTHS and Kecha  <b>Commerce</b> - Rehabilitation of the central market and the creation of a modern market at the council industrial site - Creation of a waste discharge area at the new council layout - Creation of a multimedia centre around the council premises  - Creation of an industrial zone in Wum southern district - Creation of motor park at the New Council Layout and at the new cattle market - Creation of a municipal cemetery along Bu road - Creation of a fire safety unit before the new slaughter house	<ul style="list-style-type: none"> <li>- Risks related to the acquisition of lands for the localization of the micro projects</li> </ul>	<ul style="list-style-type: none"> <li>- Sensitize and inform the affected persons on the necessity of the site and the choice criteria</li> <li>- Obtain land donation attestation signed by the village chief and the proprietor of the site</li> </ul>
	<ul style="list-style-type: none"> <li>- Conflicts related to the choice of site/ involuntary displacement of persons for site use</li> </ul>	<ul style="list-style-type: none"> <li>- Inform the affected persons</li> <li>- Census (Count the persons) / affected homes and evaluate their property</li> <li>- Compensate affected persons in conformity with the Resettlement Action Plan (RAP) terms or clauses</li> </ul>
	<ul style="list-style-type: none"> <li>- Conflicts related to the use, and non durability or fragility of the work.</li> </ul>	<ul style="list-style-type: none"> <li>- Putting in place a Project management committee including women and establish use rules as well as a functioning and maintenance mechanisms</li> </ul>
	<ul style="list-style-type: none"> <li>- Diverse impacts related to the choice of site.</li> </ul>	<ul style="list-style-type: none"> <li>- Systematically avoid setting up works in sensitive zones such as swampy areas, sacred zones, rivers, parks and protected areas, used zones, mountain sides, etc</li> <li>- Liaise with competent services to choose the site</li> </ul>
	<ul style="list-style-type: none"> <li>- Erosion due to the use of burrowed pit or zones/ gravel quarry or sand and /or the excavation of the Project site.</li> </ul>	<ul style="list-style-type: none"> <li>- Restore the burrowed zones while respecting the natural sloping nature of the land</li> <li>- Re-afforestation in the affected zones;</li> <li>- Embellishment of these structures</li> <li>- Planting of grass (vegetative cover) in the affected zones</li> </ul>
	<ul style="list-style-type: none"> <li>- Impacts related to pollution due to waste oil from vehicles</li> </ul>	<ul style="list-style-type: none"> <li>- Use adapted engines and change filters regularly</li> <li>- Sensitise the population of the dangers of heavy trucks</li> <li>- Put in place engine oil reception tanks and get them returned to specialized enterprises.</li> </ul>
	<ul style="list-style-type: none"> <li>- Air pollution by dust due to the transportation of materials and circulation of machines</li> </ul>	<ul style="list-style-type: none"> <li>- Respect the project site security rules and regulations (wearing of masks, boots,)</li> <li>- Watering the works with water from a permanent water source</li> <li>- Sensitisation of the population against the dangers of pollution from constructional works</li> </ul>
	<ul style="list-style-type: none"> <li>- The loss of woody and vegetation species related to the clearing of the site.</li> </ul>	
	<ul style="list-style-type: none"> <li>- The increase in the</li> </ul>	<ul style="list-style-type: none"> <li>- Sensitize the direct beneficiary population</li> </ul>

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<b>MINEPIA</b> <ul style="list-style-type: none"> <li>- Construction of a cattle drinking point at the new cattle market</li> <li>- Construction of a mosque at the cattle market site</li> <li>- Create a cattle route for exit of cattle</li> <li>- Creation of a small livestock market</li> <li>- Construction of a modern slaughter house</li> </ul>	prevalence rate of STD/HIV/AIDS, and eventually on poaching	and personnel on STDs and HIV/AIDS, and on poaching through bill boards/posters, and meetings
	<ul style="list-style-type: none"> <li>- Accident risks related to diverse movements and works</li> </ul>	<ul style="list-style-type: none"> <li>- Respect the distance between the road and the site</li> <li>- Put project site sign boards</li> <li>- Observe basic security rules (putting on the appropriate uniforms, speed limitation, etc.)</li> <li>- Ensure site security</li> </ul>
	<ul style="list-style-type: none"> <li>- The increase of revenue within the micro project zone.</li> </ul>	<ul style="list-style-type: none"> <li>- The recruitment of personnel on the basis of competence and transparency</li> <li>- Favour the recruitment of the local population for mobilized labour as well as the use of labour intensive techniques (HIMO)</li> </ul>
	<ul style="list-style-type: none"> <li>- Fear for the destruction of gallery forest</li> <li>- Pollutions related to waste generated during the works</li> <li>- Disturbance of persons along footpaths.</li> </ul>	<ul style="list-style-type: none"> <li>- Avoid depositing waste matter within the river channel ( at least keep 100m distance from the river)</li> <li>- Protect existing footpath</li> <li>- Reinforce and protect the existing gallery forest</li> <li>- Deposit within the old borrowed zones</li> </ul>
	<ul style="list-style-type: none"> <li>- Impacts related to solid waste generated as a result of work.</li> </ul>	<ul style="list-style-type: none"> <li>- Preview garbage cans for the evacuation of solid wastes which will be taken to be emptied</li> </ul>
	<ul style="list-style-type: none"> <li>- Impacts related to domestic wastes. (Used water, excreta, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>- Preview a good drainage system especially for used water</li> </ul>
	<ul style="list-style-type: none"> <li>- Improvement in the access to basic services.</li> </ul>	<ul style="list-style-type: none"> <li>- Train the management committee on key issues including, maintenance and the management of works</li> <li>- Preview a water point to improve on the utilization of the work</li> </ul>
	<ul style="list-style-type: none"> <li>- Floods and water stagnation risks around the work.</li> </ul>	<ul style="list-style-type: none"> <li>- Preview a simplified network for the purification of rain water, including its evacuation</li> </ul>
<b>HYDRAULIC PROJECTS/ WATER SUPPLY PROJECTS</b> (e.g. Wells, bore holes, rehabilitation of water catchment areas, Protected water catchment areas source, extension of potable water supply, Rehabilitation and extension of water supply, Rehabilitation of storage tank, Rehabilitation of water network, etc)		
<b>Project</b>	<b>Potential Socio-environmental impacts</b>	<b>Mitigation measures</b>
<b>Water and Energy</b> <ul style="list-style-type: none"> <li>- Rehabilitation and realignment of the water pipe line around the roads through the palaces</li> <li>- Provision of water supply/water point at the proposed council layout</li> <li>- Provision of water supply/water point to the proposed health centres and health posts</li> </ul>	<ul style="list-style-type: none"> <li>- Short term shortage of pipe born water.</li> </ul>	<ul style="list-style-type: none"> <li>- Use other functioning stand taps</li> </ul>
	<ul style="list-style-type: none"> <li>- Conflicts related to choice of site/ involuntary displacement of persons for the use of site.</li> </ul>	<ul style="list-style-type: none"> <li>- Inform affected persons</li> <li>- Count the persons / homes affected and evaluate their property</li> <li>- Compensate those affected in conformity with the Resettlement Action Plan (RAP) terms</li> <li>- Protect water catchment areas</li> </ul>

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	<ul style="list-style-type: none"> <li>- Accident risk emanating from the works.</li> </ul>	<ul style="list-style-type: none"> <li>- Put sign boards at the site</li> <li>- Observe basic security rules (wearing the appropriate uniforms, speed limitation, etc.)</li> <li>- Ensure security at the site</li> </ul>
	<ul style="list-style-type: none"> <li>- Erosion due to excavation</li> <li>- Floods and standing water risks around the works.</li> </ul>	<ul style="list-style-type: none"> <li>- Backfill soil after laying the pipes</li> <li>- Preview a simplified rain water purification network including a means of an eventual evacuation into lost and well secured wells</li> </ul>
	<ul style="list-style-type: none"> <li>- Perturbation of water quality.</li> </ul>	<ul style="list-style-type: none"> <li>- Regular physico-chemical water treatment</li> </ul>
<b>INTERCONNECTING PROJECTS</b>		
(Rehabilitation of rural path, maintenance of rural roads, extension of rural road, construction of bridges, culverts, extension of electricity network, farm to market roads, etc)		
<b>Project</b>	<b>Potential Socio-environmental impacts</b>	<b>Mitigation measures</b>
<b>MINTP</b> <ul style="list-style-type: none"> <li>- Rehabilitation of all secondary and tertiary roads within the Wum Urban Space</li> <li>- Construction of gutters along the primary road (N11),</li> <li>- Refilling of port holes on the string of the paved primary road (N11)</li> <li>- Construction and rehabilitation of culverts and bridges within the urban space</li> </ul>	<ul style="list-style-type: none"> <li>- Potential socio-environmental impacts</li> </ul>	<ul style="list-style-type: none"> <li>- Socio-environmental Mitigation Measures</li> </ul>
	<ul style="list-style-type: none"> <li>- Risks related to land acquisition for project localization</li> </ul>	<ul style="list-style-type: none"> <li>- Sensitize and inform affected persons on the necessity of a site and choice criteria</li> <li>- Obtain a land donation attestation, signed by the village chief and proprietor of the site</li> </ul>
	<ul style="list-style-type: none"> <li>- Air pollution by dust due to the transportation of materials and the circulation of machines</li> </ul>	<ul style="list-style-type: none"> <li>- Respect of security rules and regulations at the site (the wearing of masks, boots)</li> <li>- Watering the works with water from permanent water courses</li> </ul>
	<ul style="list-style-type: none"> <li>- Accident risks related to works.</li> </ul>	<ul style="list-style-type: none"> <li>- Put site sign boards</li> <li>- Observe basic security rules (the wearing of the appropriate uniforms, speed limits, etc.)</li> </ul>
	<ul style="list-style-type: none"> <li>- Floods and standing water risks around the works.</li> </ul>	<ul style="list-style-type: none"> <li>- Preview a simplified rain water purification network including a means of an eventual evacuation into lost and well secured wells</li> </ul>
<b>NATURAL RESOURCE MANAGEMENT PROJECTS</b>		
(Exploitation of quarry, control of soil fertility, reforestation, Rehabilitation or protection of water catchment sites etc)		
<b>Project</b>	<b>Potential socio-environmental impacts</b>	<b>Mitigation measures</b>
<b>Urban Agriculture</b> Provision of rules guiding the cultivation of crops in the neighbourhoods within the urban area	<ul style="list-style-type: none"> <li>- Untidy environment in the neighbourhoods</li> <li>- Provide breeding ground for diseases like mosquitoes</li> </ul>	<ul style="list-style-type: none"> <li>- Control the kind of crops to be planted</li> <li>- Control the pattern of planting the crops</li> <li>- Put fences around the cropped areas</li> </ul>
	Destruction of crops and property	<ul style="list-style-type: none"> <li>- Build fences to secure ruminants</li> <li>- Control cattle during rearing</li> </ul>
	<b>Livestock, Fisheries and Animal Industries</b> Provision of rules guiding the rearing of livestock within the neighbourhoods in the urban area.	<ul style="list-style-type: none"> <li>- May spread diseases</li> </ul>

Source: CAMGIS 2012

## **APPENDICES**



## Appendix 1: GLOSSARY OF TERMS

**Adjoining:** Two buildings are adjoining when they are joined to each other.

**Administrative easement:** Town planning or architectural constraints imposed by the regulations for the construction of a building.

**Advertising:** The process of letting people know about a product or service.

**Agriculture:** The practice of land cultivation and keeping of livestock for a living.

**Agro-forestry:** The practice of agriculture along with forestry whereby the trees help replenish nutrients in the soil to maintain a longer growth potential.

**Alignment:** Imaginary line defining the boundary on which the façades of buildings should be aligned.

**Block plan:** A graphic document that shows the location of one or more constructions from the boundaries of the land unit as well as any adjustments in the rest of the plot.

**Buffer area:** A separation space between 2 incompatible uses such as residential and industrial.

**Building operations:** Include any roadworks, preliminary or incidental to the erection of buildings.

**Commercial:** A location for business such as retail trading.

**Common boundary:** Boundary between the land unit from nearby private and public properties.

**Community:** The people living in a particular place and usually linked by common interests.

**Community facilities/services:** Facilities/services used in common by a number of people, including schools, health, recreation, police, fire, public transportation, community centre, etc.

**Continuing order:** There is continuing order when the buildings are adjoining.

**Convenience commercial:** A location for small commercial uses in the residential areas.

**Coverage:** The area of the lot converted into living space taking the setbacks into consideration.

**Density:** A measure of the intensity of occupation or use, measured in units per area (units/area). Units are customarily plots, dwellings, rooms or people per area, usually per hectare or per km<sup>2</sup>.

In terms of land, there are two forms:

- Gross density - considering the total overall area of all land (public and private land).
- Net density - considering only a selected portion, generally only the private residential land. In the context, the actual number may be high, medium or low.

**Development:** In relation to any land, development includes any building or building operations and any use of the land or any building thereon for a purpose which is different from the purpose for which the land or building was last being used, subject to some conditions. (See building operations)

**Development plan:** The general purpose of a development plan is to indicate the manner in which the local planning authority proposes that land in the area of the plan should be used and the stages by which any development proposed should be carried out.

**Discontinuing order:** There is discontinuous order when buildings are not adjoining.

**Effective floor area:** Total useful floor area excluding areas necessary for the construction of walls and building structures.

**Habitat:** A building where a person lives.

**Home occupation:** Work done from the home such as crafts, tailoring.

**Kiosk:** A stand used for selling goods on the side of a road.

**Land unit:** Parcel, land, plot which is clearly delineated.

**Land use coefficient (LUC):** Conventional index determining the ratio of the developed floor area to the plot area. The LUC is a number which, multiplied by the area of land, expresses the total buildable floor on a plot.

E.g.: for a plot of 1 000 m<sup>2</sup>, with a LUC of 0.25, we can effectively build 1000 x 0.25 = 250 m<sup>2</sup> developed floor area. N.B.: It does not include areas unsuitable for work and housing (garage, balcony, terrace, and basement).

**Landscaping:** Plants, such as flowers, shrubs and trees and even pavements used for beautifying habitable areas.

**Light industry:** Uses that pertain to warehousing and manufacturing, and automobile related activities.

**Maximum:** No more than.

**Minimum:** No less than.

**Plot coverage:** Projected surface of buildings on the ground; it is expressed as a percentage determining the built ground surface from the total area of the plot.

**Public building:** Buildings built or acquired by a public entity and to receive the public. E.g. academic, social, cultural, hospital, administrative equipment, etc.

**Public right of way:** Area bounded by the limits of the public domain.

**Public utility easement:** Constraint imposed by a public domain right of way (e.g. high tension corridor).

**Range:** The range of a good or service is the farthest distance that a dispersed population is willing to travel in order to obtain that good or service.

**Residential area:** A zone where people live.

**Revitalisation:** The improvement of neighbourhoods by financing the construction of affordable housing.

**Rural cluster:** An area outside an urban area.

**Sector plan (SP):** The SP is a town planning document that specifies, in certain parts of the town, indications and easements that are in the Summary Urban Development Plan or Land Use Plan.

**Setback:** Distance between a building and the public right of way or the common boundary.

**Settlement area:** A group of homes where people live within relative close proximity to certain services such as a school, market, a place of worship or a health centre.

**Side walk:** An area for pedestrians to walk by the side of the road.

**Site and services project:** The subdivision of urban land and the provision of services and utilities for residential use and complementary commercial use. Site and services projects are aimed to improve the housing conditions for low income groups by providing:

- site, or plot of land, on which people can build their house; and
- services: the necessary utility and service infrastructure necessary for a functioning community.

**Tethered:** The process whereby an animal such as a goat is attached by rope to a point in the ground or to a fence or a tree and can walk in a circle to eat and cannot wander away.

**Threshold:** The minimum demand needed to support the supply or provision of a good or service.

**Total height:** The critical height of a building is measured from natural ground until the top of the building, excluding technical works, chimneys and other superstructures. The height of the roof drain is measured from natural ground up to the sewer of the roof, the measurement being performed at the middle of the big façade situated on the downstream side.

**Town planning:** Constitutes all the legislative, regulatory, administrative, technical, economic, social measures geared towards the harmonious and coherent development of human settlements through the judicious use of land, the development of the said land and improvement of the living environment as well as economic and social development. (Law 2004/003, section 3)

**Urban agriculture:** The practice of land cultivation and keeping of livestock for a living or to supplement low urban incomes. Though agriculture is not an urban activity as such, urban agriculture is definitely a force to reckon with in urban areas of emerging countries: it supports livelihoods and food security, generates an economic value from land that would otherwise be idle or vacant, and its economic impact reaches far beyond farmers.

**Urban centres:** Human settlements covering an uninterrupted and clearly built-on area with at least 2000 (two thousand) inhabitants. (Law 2004/003, section 4)

**Urban renewal:** Blighted areas demonstrated by conditions such as poorly constructed buildings, faulty planning, lack of open spaces, deteriorated properties, an incompatible mix of uses, improper utilisation of land.

**Urban street furniture:** any fixtures within or outside the public road reserve which desirably or undesirably influence the use of transit passages.

**Vacant land:** Vacant lands, or empty plots, are usually not developed or built upon; they may be currently used for gardening, recreation or green spaces. Ordinarily, they are of five types: remnant parcels (small in size, irregular in shape); parcels with physical limitations (steep slopes and flood hazards and thus unbuildable); reserve parcels held for future expansion; parcels held for speculation, frequently found in transitional areas; and institutional reserve parcels set aside by public or semi-public entities for future development, given need and funding. In all cases, they are owned by someone, institution or community. While vacant lands/plots are used for urban areas, undeveloped plots are used in the rural areas, or in zones outside the urban periphery.

**Zone:** A specific area with definite restrictions and permissions.



**APPENDIX 2: Attendance List for the Validation Workshop**

S/N	NAMES	SERVICE	FUNCTION	CONTACT	SIGNATURE
1	EMIRATOU BI TA BENIT William	S.D.O	Chief Merchant	75744975	
2	ALGWA MARION MARION	D.O	D.O Wum	77948940	
3		1st Deputy Mayor			
4	HAMZA Umoru	2nd Deputy Mayor		77416607	
5	AKECHU Thomas T.	MINHDU	REGIONAL DELEGATE	70872573	
6	NGAN JOH THOMAS KASUM	MINPAT	DEPAT MANESTUM	77434658	
7	DJANTO Robert	ETAT MAJOR	Coom Wum	7529842	
8	Yengi Alfred Shifu		Commissioner Wum	77926590	
9	NBEIK GEORGE		SUPERINTENDENT	77829202	
10	SONE William		Assist. copel	77890300	
11	KAH ENAH HENRY	D.D. SPE Merchant	D.D.	77859967	
12	MINDANG GARKA JR	DD. MINMIDT	D.D.	75690092	
13	KIMBI TASHING N.	DD MINPMEESA	D.D.	77885626	
14	BETH MARIN K.	DD Secondary Educ MINTSS	DD For	77964876	
15	Fang Mary Bih	DD L S S For	For DDC	77865133	
16	MBE Jacques	DD MINAS	DD	93127227	
17	KELLY nee NCHIA VICTORINE	DD MINSEC for	FOR DISTANCE	75104898	
18	AKWO Ndoh Boniface	DD ELECATT	FOR DD	96185211	
19	Yemele Edouard	DD MINCAF	DD	70380013	
20	AKUMMA Divine	P&T	PM	75556249	
21	MONA HENRY AWAH	D.D. MINEPES	DELEGATE	77883328	
22	WALTER SANG SAMUEL	DD P.W.	For, C/S	77014536	
23	IVAH NAZARIUS MVO	DD, Basic Educ	For C/S F	99720453	
24	* TABI LAWRENCE T	DDSE MENLUM PASIE	For PASIE	77801153	
25	Che Henry Ngang	D. D Commerce	D. Delegate	77648516	
26	Ame Cletus Emory	DD MINIOUL	A. Delegate	77358405	
27	Angene Emmanuel	DA MINEPIA	Kep DA	77759272	
28	Mbatalom Michael	DD MINEFOP	Div. Delegate	77857145	
29	NDOUMTSOP FREDERIC	DD MINEE	Delegate	77890759	
30	EMMANUEL N. ASANI	DD TRANSPORT	DA	77653909	



Summary Urban Development Plan - Wum Town

S/N	NAMES	SERVICE	POSITION	PHONE	INITIALS
31	Tamfu Richard	DMIRD	HDMIRD	9473774	<del>17/11</del>
32	Kilo Wango Florence	DIPROFF	Delegate	77483330	<del>17/11</del>
33	EKOM IVORSMITH	Wum Council	SUPERVISOR SANITATION	76683690	<del>17/11</del>
34	Anang Dorsthy	Divisional Treasury	Assistant (For) controller	93932733	<del>17/11</del>
35	BENG JULIUS ACTHO	WUM councillor	Councillor	96489927	<del>17/11</del>
36	ACTHO EVARISTUS	SBF Youth	Sec	79241098	<del>17/11</del>
37	ASAH ANUNA	JUSTICE	Registrar in Chief	77883323	<del>17/11</del>
38	HRM BAHMBI III	Gov of Ashem	Traditional Ruler	77851660	<del>17/11</del>
39	Konfor Yengi Gladys	Business		74798862	<del>17/11</del>
40	KWA DIVINE	deaconess		7654312	<del>17/11</del>
41	MIBENDWA JOHA	FULL GOSPEL M.	PASTOR (S)	72094668	<del>17/11</del>
42	CHE JOEL	IBE WUM CENTRAL	INSPECTOR	99559911	<del>17/11</del>
43	Mamah Mohamedou u.	AKU community	Ardo	79492087	<del>17/11</del>
44	Ndum Mary Meh	MINPROFF	DIRE, WEC	76505877	<del>17/11</del>
45	Ndzi Julius Y	MINESEC	CSAF	77918751	<del>17/11</del>
46	Mbo Patrick Techa	SAR/SW Wum	Director	77868161	<del>17/11</del>
47	TOIKABE BERNARD	DIR-CHIEF/MINDCAF	CHIEF OF SURVEYS	76487566	<del>17/11</del>
48	NGHAMBOM JOSEPH	MINDCAF D.C of state Property	DIVISIONAL chief of state property		<del>17/11</del>
49	NGEH IVO MATUM	CHIEF OF TAXATION MINDCAF	MINDCAF	7677358	<del>17/11</del>
50	Kum em Chrysanthus	Civil society	President	99695993	<del>17/11</del>
51	Anang Keji Anthony	Mindca	Technician	75077440	<del>17/11</del>
52	Pastor Jabo Ernest	CBC Nlakae	Pastor	79201632	<del>17/11</del>
53	Babot Frankline B	SOPACC	For the Principled	79150439	<del>17/11</del>
54	Actho Simon	Bud Road.		77803183	<del>17/11</del>
55	Raphael Anang Foy	Pol. Leader OADM	S-G Mindca	77458117	<del>17/11</del>
56	FRANKLINE WASECHA	ZONLIFU	Regent	75573739	<del>17/11</del>
57	Kesei Jeanette	Women forum	V President	97317162	<del>17/11</del>
58	Buh Sule Tegha	Wum	A.C SBF	94448227	<del>17/11</del>
59	<del>Buh Peter Tegha</del>	<del>Wum</del>	<del>Regent</del>	<del>9477541</del>	<del>17/11</del>
60					



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S/N	NAMES	SERVICE	FUNCTION	CONTACT	SIGNATURE
61	Mina Henry	Regent Kesa		7731942	
62	Achuo Mathias D.	U.P.C.	President	77923491	
63	Chrysanthus Ebuwa Mwa	G.T.C Wamido	Principal	77916389	
64	Richard che Muli	Wum Council	S.G	77802167	
65	Imani Umare Gibijala	An Imam	Imam	99737318	
66	AKwo Fabiola-Alima E	Wum Council	Councillor	77642100	
67	Kum Siendonne A.	C.M.P.J kum	Director	78897698	
68	Nelia Peter Nghan	Wum Council	Finance Officer	7085845	
69	Achuo Vincent Ngon	Wum Council	Building Controller	77898850	
70	Anyanha John Eba	11	Electrician	7024964	

S/N	NAMES	SERVICE	FUNCTION	CONTACT	SIGNATURE
71	Fung Stephen Kum	Regent Zongotegha	Regent	-	
72	Ewi Patrick Achuo	Wum Council	civil status Sec	73191219	
73	Edeng Lawrence	Wum Council	Police Municipal p.	74158527	
74	Alhadiji Bida	Wum Council	Councillor	90175925	
75	AKwo Richard	kum Council	Fin. Clerk	74844655	
76	Mrs. Valentin - J. ler	Wum Council	Councillor	77866408	
77	Tannah Emmanencia	Wum Council	librarian	75263894	
78	Abang Donald	Researcher	Researcher	7669222	
79	Kika Louis	DD MINH DU-WUM	CIB H & A (Rapporteur)	74307859	
80	Chobisah Emmanuel N	TSGC MINH DU	TSGC.	75134385	

S/N	NAMES	SERVICE	FUNCTION	CONTACT	SIGNATURE
81	Felefusah Hosea Asang	Wum Council	Council Development Office	77849320 94394856	
82	Ewi nee Kang Elizabeth	S D I	NGC	77920444	
83	KAH ANWA	WUM COUNCIL	Secretary	7068824	
84	KUM TEH	ELECAM	Representative	75646211	
85	LOBGA KENNETH GALGA	G.B.H.S WUM	CENSEUR	77866323	
86	STANLEY ANANG	M.C.P.S Kla-Azoh	President	75930855	
87	AKIAH Dylard	V.C.P.D.M Set, nka	sub president	75326401	
88	Maurine Nsen	MINH DU	Sec	73191222	
89	Bah Cameruz	Transport	Chief/bureau	77831237	
90	Achuo Joseph	Regent Gbridge		75434025	



Summary Urban Development Plan - Wum Town

S/N	NAMES	SERVICE	FUNCTION	CONTACT	SIGNATURE
91	Diame KAMENI KAMGA	MINH DU/DEPC	Ing de Suivi	77470710	
92	ISAAC Njeshy KONTOR	MINH DU	Divisional Delegate	97062633	
93	Anyang Gardin	RC/MINH DU	Regional Chief	77916255	
94	CHIAM MOSES	Driver / MINERPER	DRIVER	94991286	
95	Chym Obert	Obert D.O.	Driver	75421123	
96	Frankline Nasegha	Chief of Zongoh	Regent	75573739	
97	Actuo Joseph Paul	Regent		75434005	
98	Kuh Ephraim Kong	CAMGIS		77019766	
99	Dogo Nelson Nfor.	CAMGIS	Consultant	74976867	
100	WUET W. S	CAMGIS	Consultant	76784210	
101	NGWANG Raphael	CAMGIS	Architect	77365427	
102	Jokwi Irene	CAMGIS	Sociologist	77453276	
103	Ndifon Lawrence	CAMGIS	Data Analyst	75594186	
104	Njita Joseph	CAMGIS	Chief of Mission	77642595	
105					
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**APPENDIX 3: Councillors in Extra-Ordinary Session of 24/01/2013**

WUM COUNCIL MUNICIPAL COUNCILLORS SIGNATORIES TO DELIBERATION ADOPTED DURING AN EXTRA ORDINARY SESSION OF 24<sup>TH</sup> JANUARY 2013.

S/N <sup>o</sup>	NAME OF COUNCILLORS	SIGNATURE
1	NJUKWE Charles KWE	
2	KANG née KOM Delis ZEI	
3	HAMZA UMARU	
4	WALLANG Richard EBUA	
5	TENG Sylvester ENAH	
6	AKWO Fabiola ALIMA EFHIEH	
7	DIGHAMBONG Anthony MVO	
8	WALLANG David AKWO	
9	NGONG née SIH Marie Zenobia	
10	KIBANG Augustine KOM	
11	NCHIA Patrick AKWO	
12	BENG Julius ACHUO	
13	KELLY née NCHIA Victorine	
14	CHUO Cyprain AKWO	
15	AFUH Andrew KEDZE	
16	SADEU Jean	
17	GHONG Ivor NJU	
18	MUA Valentine Jules	
19	KWA Joseph KEDZE	
20	ASANG Jonathan KUME	
21	MENDI Stephen DUNG	
22	Lawrence NGENE BANDE	
23	SIH KWELEMAN	
24	BIRA KURUMAN	