# GOVERNMENT OF GHANA

MINISTRY OF LOCAL GOVERNMENT, DECENTRALISATION AND RURAL DEVELOPMENT

NEW JUABEN SOUTH MUNICIPAL ASSEMBLY

GHANA SECONDARY CITIES SUPPORT PROGRAMME (GSCSP)

# PREPARATION OF SPATIAL DEVELOPMENT FRAMEWOR (SDF) FOR NEW JUABEN SOUTH MUNICIPAL ASSEMBLY (2025-2045)

## FINAL REPORT

## DECEMBER, 2025

GLOBAL DEVELOPMENT ASSOCIATES

# Table of Contents

LIST OF FIGURES ..... 5
LIST OF TABLES ..... 6
EXECUTIVE SUMMARY ..... 7
INTRODUCTION ..... 11
1.1 Background ..... 11
1.2 Definition and Purpose of the Municipal Spatial Development Framework ..... 11
1.3 Methodology on the Situational Analysis ..... 12
1.4 Brief Description of the New Juaben South Municipality ..... 12
1.5 Need for a Spatial Development Framework (SDF) in the Municipality ..... 13
1.6 Legal, Policy and Planning Context ..... 14
1.7 Governance and Institutional Framework for the Preparation of Municipal Spatial Plans ..... 16
1.8 Report Organization ..... 17
POPUATION AND HUMAN SETTLEMENT ..... 18
2.1 Introduction ..... 18
2.2 Population Trends, Distribution and Density of the Municipality ..... 18
2.3 Age-Sex Structure and Age Dependency Ratio ..... 18
2.4 Project Population and Urbanisation ..... 19
2.5 Hierarchy of Settlements ..... 20
2.6 Summary of Findings ..... 21
UNDERSTANDING THE ECONOMY OF THE NEW JUABEN SOUTH MUNICIPALITY ..... 22
3.1 Introduction ..... 22
3.2 Economic Profile of the Eastern Region ..... 22
3.3 Economic Structure of New Juaben South Municipal ..... 22
3.4 The Contribution of the Agricultural Sector to the Economy of NJSM ..... 23
3.5 The Contribution of the Commercial Sector to the Economy of NJSM ..... 25
3.6 Contribution of the Service Sector to the Economy of NJSM ..... 29
3.7 The Contribution of the Industrial/Manufacturing Sector to the Economy ..... 29
3.8 The Contribution of the Tourism Sector to the Economy ..... 29
3.9 Local Economic Development (LED) ..... 31
3.10 Summary of Findings ..... 31

NATURAL ENVIRONMENT ..... 33
4.1 Introduction ..... 33
4.2 Environmental Policies ..... 33
4.3 Relief and Drainage ..... 34
4.3. Land Cover Status and Change ..... 35
4.3.1 Land Cover Change ..... 36
4.4 Biodiversity ..... 38
4.4.2 Ecological Condition ..... 39
4.5 Climate Change and Resilience ..... 39
4.5.1 Responding to Climate Change ..... 41
4.6 Summary of Findings ..... 42
MAN MADE ENVIRONMENT ..... 43
5.1 Introduction ..... 43
5.2 ROAD INFRASTRUCTURE AND TRANSPORTATION ..... 43
5.3 Water Infrastructure and Services ..... 44
5.4 Sewerage and Sanitation Infrastructure and Services ..... 45
5.4.1 Solid Wate Disposal ..... 46
5.4.2 Liquid Waste Disposal ..... 46
5.4.3 Storm-Water Infrastructure ..... 46
5.5 Communication Infrastructure and Services ..... 47
5.7 Summary of Findings for Man-Made Environment ..... 49
SOCIAL DEVELOPMENT ..... 51
6.1 Introduction ..... 51
6.2 Health ..... 51
6.2 Education ..... 53
6.3 Housing ..... 56
6.4 Gender and Development (Poverty, Inequality & Social Protection) ..... 56
6.5 Main Findings- Social Development ..... 57
DEVELOPMENT CHALLENGES AND OPPORTUNITIES ..... 59
7.1 Introduction ..... 59
7.2 Natural Environment Challenges and Opportunities ..... 59
7.2. 1. Land Use Changes (2015-2021) ..... 59
7.2.2 No strategy to address issues of Climate Change and Resilience ..... 60

7.3 Population Dynamics and Urbanization ..... 61
7.3.1 Increasing Population Growth ..... 61
7.3.2 Nucleated Population Distribution Pattern ..... 61
7.3.3 Level of Urbanisation ..... 61
7.4 Challenges and Opportunities in the Economy ..... 61
7.4.1 High Economic Activity ..... 61
7.4.2 Untapped Tourism Sector ..... 62
7.4.3 Potential to Expand the Agro-Industrial Sector ..... 62
7.5 Challenges and Opportunities in the Man-Made Environment ..... 62
7.5.1 Poor Road Conditions ..... 62
7.5.2 Structured Disposal Solid Waste ..... 62
GOALS, STRATEGIES AND SCENARIO OPTIONS FOR NEW JUABEN SOUTH MUNICIPAL SPATIAL DEVELOPMENT ..... 64
8.1 Introduction ..... 64
8.2 Vision ..... 64
8.3 Goals, Objectives and Strategies ..... 64
8.3.1 Goal One: Safeguard the Natural Environment to protect biodiversity ..... 65
8.3.2 Goal Two: Promote Diversified and Sustainable Local Economic Development ..... 65
8.3.3 Goal Three: Promote Expanded Infrastructural Development and Resilient Built Environment ..... 66
8.3.4 Goal Four: Promote A Balanced Distribution of Social and Economic Opportunities ..... 67
8.4 Scenarios Options for Development ..... 68
8.4.1 Scenario One: Sustainable Agricultural Villages, Eco-Tourism and Natural Resource Protection ..... 68
8.4.2: Scenario Two: Business and Services Intensification, Industrial and Polycentricity Development ..... 72
8.4 Preferred Scenario: Intensification of Business and Services Environmental Sustainability and Agro-Industrialization Scenario ..... 75
8.4.1 Spatial Development Concept ..... 75
8.5 Development Proposals ..... 76
8.5.1 Settlement Proposals ..... 76
8.5.2 Economy ..... 77
8.5.4 Education ..... 78
8.5.5 Water Infrastructure ..... 79

8.5.6 Sewerage and Sanitation ..... 79
8.5.9 Tourism ..... 80
8.5.10 Transportation and Road Infrastructure ..... 80
8.5.11 Environment ..... 80
IMPLEMENTATION PLAN ..... 81
9.1 Introduction ..... 81
9.2 Phasing and Timeframe ..... 81
9.3 Implementing Agencies for the Municipal SDF ..... 81
9.3 Programme of Actions, Timeframe and Budget ..... 84
MONITORING AND EVALUATION ..... 102
10.1 Introduction ..... 102
10.2 Stakeholder Analysis ..... 102
10.3 Monitoring ..... 106
10.4 Evaluation Matrix ..... 118
10.5 Conclusion ..... 0

# List of Figures

Figure 1.1 Location Map of New Juaben South Municipality……12
Figure 2.1 Age and Sex Structure……...18
Figure 2.2 Population Projection by 2045……18
Figure 2.3 Population Projection of Settlements 2045……19
Figure 2.4 Classes of Settlement……20
Figure 3.1: Agricultural production areas……24
Figure: 3.2 Location of Markets in the Municipality……...26
Figure 3.3 Central Market……26
Figure 3.4: Agartha Market……27
Figure: 3.5 Serwaa Market……27
Figure: 3.3 Tourists Attractions in the Municipality……26
Figure 4.1 Relief and Drainage Map……29
Figure 4.2 Soil Types in the Municipality……33
Figure 4.3 Land Cover Trends from 2015-2021……35
Figure 4.4: Land Cover Variance (2015-2021) ……36
Figure 4.5 Ecosystem Types……37
Figure 4.6 Ecological Conditions ……38
Figure: 5.2 Conditions of Road Network in the Municipality……43
Figure 6.1 Distribution of Health Facilities in the New Juaben South Municipal……..51
Figure 6.2: Ownership of Health Facilities……52
Figure 6.3: Health Accessibility Map……...52
Figure 6.5: Distribution of Educational Facilities……54
Figure 6.6 Educational Accessibility Map…….....54
Figure 7.1 Land Cover Variance (2015-2021) ……55
Figure 8.1 Sustainable Agricultural Villages, Eco-Tourism and Natural Resource Protection68
Figure 8.2: Business and Services Intensification, Industrial and Polycentrity Development 70
Figure 8.3: Preferred Scenario New Juaben South Municipal Spatial Development Framework……...72

# List of Tables

Table 3.1: Occupations of Employment by Sub-Sector of the Economy from 2021……...22
Table 3.2 Major Trade Partners of New Juaben South Municipal……...25
Table 6.1 Ownership of Schools in the Municipality……54
Table 9. 1: Economy (Agriculture)……..…..84
Table 9. 2: Human Settlement…….…….87
Table 9. 3: Water Infrastructure and Services…….…….89
Table 9. 4: Sewerage and Sanitation Services…….……90
Table 9. 5: Storm Water Infrastructure and Services……...…….90
Table 9. 6: Energy Infrastructure and Services…….……...90
Table 9. 7: Transport and Road Infrastructure……..……91
Table 9. 8: Health Infrastructure and Services……...……...…...93
Table 9. 9: Education Infrastructure and Services…….……...…...…….95
Table 9. 5: Environnent……....96
Table 9. 6: Communication Infrastructure and Services……..…… …. .98
Table 9. 7: Gender and Development……..…….…...98
Table 9. 8: Tourism……. 101
Table 10.1: Stakeholders for the SDF and their Roles/Responsibilities…….103
Table 10.2: Monitoring Matrix (Short-Term, 1-5 Years) ……...……107
Table 10.3: Monitoring Matrix (Medium Term, 6-10 Years) ……...…….113
Table 10.22: Evaluation matrix……..118

## EXECUTIVE SUMMARY

The New Juaben South Municipal Assembly (NJSMA) became a beneficiary of the Ghana Secondary Cities Support Programme through the Additional Financing (AF) which is primarily to help fill a financing gap and to sustain and increase the programme operation's development impact on the ground. As part of the grant received CSG under the Ghana Secondary Cities Support Program (GSCSP), NJSMA decided to use part of it to engage a planning consulting firm to prepare a Spatial Development Framework (SDF) - 2025-2045 for the Municipality and a Structure Plan for Koforidua (2025-2040) to enhance spatial planning of its settlements.

A District Spatial Development Framework is the spatial expression of social, economic or other policy, at district level. It is usually formulated over a 20year period and make proposals for what kinds of development should take place, how much of it should occur, where and how this should happen, in order to take advantage of opportunities. Such a spatial expression interacts with social and economic policies and reveal new possibilities and synergies for development. The SDF addresses the spatial development implications of issues like economic development, employment, housing, infrastructure services (waste, water, energy, etc.), education, health care, tourism and leisure, transportation, communications, culture and the environment.

The rationale of an SDF for the New Juaben South Municipal is to provide an opportunity to re-examine, interact with, and build on visions for the development of New Juaben South Municipal. The SDF will seek to influence future development of the Municipal in directions that promote equitable distribution of the benefits of national and regional development to reach population in the various settlements in the Municipal. The objectives of the New Juaben South Municipal Spatial Development Framework are as follows.

- To develop an SDF for New Juaben South Municipality that fits into the general framework of the National Spatial Development Framework (NSDF).
- To ensure the development of an SDF that provides a spatial vision that considers the social, economic and environmental potentials and opportunities that addresses the Municipal's development challenges and provides a sustainable trajectory to its spatial development.
- To develop an SDF that provides a spatial expression of the socio-economic, infrastructural and environmental aspirations of New Juaben South Municipal.

- To develop an SDF that will coordinate major projects/interventions in the municipality.
- To formulate SDF that will provide sound policies and solutions to tackle critical issues like water stress, climate change, municipal services delivery and housing as well as transportation challenges.

The New Juaben South Municipal covers a land area of about 60 square kilometres which happens to be the smallest in the Region with Koforidua as the municipal capital. It shares boundaries on the north-east with New Juaben North Municipality, to the south-east with Akwapim North Municipal Yilo Krobo Municipal on the east and Suhum Municipal on the west.

The preparation of the District Spatial Development Framework (DSDF) is an essential part of the spatial planning framework in Ghana. It is guided by Section 57 of the Land Use and Spatial Planning Act, 2016 (Act 925). According to this legal provision, the DSDF must conform to the general guidelines of the Regional Spatial Development Framework (RSDF). In cases where the RSDF is not available, the DSDF should align with the National Spatial Development Framework (NSDF) or any other relevant Spatial Development Framework affecting the region or district. The SDF report is organized into baseline assessments, scenarios for development of New Juaben South Spatial Development and place-based proposals for the spatial development of New Juaben South Municipal.

The baseline assessments entail the analysis of existing conditions and main issues that have been identified through a comprehensive analysis of available data. Data were gathered and analysed on the natural environment, built environment, population dynamics and urbanization, economy and social development. In the analysis of the natural environment, the loss of forest cover, grassland and food crop cover were some of the key issues identified. In the economic analysis of New Juaben South Municipal, it was found that services sector contributes to about 39.9% of the economy of New Juaben Municipal. It was evident from the economic analysis that NJSM records the lowest economic activity rate of 67.1 percent in the entire Eastern Region. In the analysis of the built environment, it was found out that the Densu river has been heavily polluted, and there is low accessibility to water services, inadequate access to potable water, lack of adequate infrastructure for the disposal of waste, poor and underdeveloped drainage systems, poor sanitary conditions, poor condition of rural and town roads and poor internet usage in the municipality were some of the key issues identified. Lastly, analysis of social development sector looked at thematic areas such as health, education,

housing, sports and recreation. The major findings identified include inadequate health infrastructure, inadequate and inequitable distribution of critical staff mix, dilapidate and inadequate educational infrastructure, uneven distribution of schools, gaps in physical access to quality health care and low educational levels among women as compared to men in the municipality.

The vision of the New Juaben South Municipal Spatial Development Framework (NJSMSDF) is ***"to be a vibrant service, commercial, and industrial hub that drives economic transformation while prioritizing sustainable social and environmental progress for a thriving future".*** Based on this vision, goals and objectives were developed to actualize the spatial vision and to guide the spatial development of New Juaben South Municipal in the next 20 years. The SDF process led to the development of two scenario options comprising sustainable agricultural villages, ecotourism and natural resource protection scenario and business and services intensification and industrial development scenario. Intensification of Business and Services, Environmental Sustainability and Agro-Industrialization scenario was chosen as the preferred scenario after extensive stakeholder consultation with different levels of stakeholders in the municipality where all the scenarios were evaluated and assessed based on its strengths and weaknesses.

The New Juaben South Municipal Spatial Development Framework developed out of the preferred development scenario by stakeholders looks at the strengthening of businesses and services and industrial developments whilst creating development nodes and clusters that will promote intensive industrial development, commerce, business and the services sector and ensuring sustainable settlement development by identifying growth poles and hotspot for spatial growth.

The SDF creates a robust and multiple development concept and structure for the development of New Juaben South in the next twenty (20) years. This scenario proposes the development of five major building blocks of primary, secondary and tertiary nodes and sustainable industrialization zones to guide the municipal's spatial development. The SDF created the Nsukwao Primary node to serve as the major commercial and administrative centre in the municipal providing highest level of services. It will be the major centre for commerce, trade, business, services, higher highest residential, mixed use and commercial densities and the greatest variety of services such as entertainment, educational, medical and social services. It will provide district and local government services as well.

Srodae and Adweso Secondary nodes was created to serve as minor commercial, administrative and centres providing social and economic services at the suburban scale. These centres will provide land uses to support residential, commercial, financial services, sports and recreation, agri-business, wholesale and retail services.

The Osabene, Nyamekrom & Ada Tertiary Node was also created to provide basic social and economic services at a reasonable level of accessibility within the district. These centres are expected to provide the full spectrum of urban services, including economic, social, engineering and administrative.

The SDF provided an institutional framework, timelines and implementation actions in actualizing the developed proposals in phases to guide the spatial development of New Juaben South Municipality. The SDF is expected to assist stakeholders, developers, government, utility companies, communities and individuals to create a high-quality environment and support sustainable development efforts of the Municipal Assembly in promoting the sustainable and resilient development of its human settlements in the municipal.

# INTRODUCTION

## 1.1 Background

The New Juaben South Municipal Assembly has received a loan facility from the World Bank under the Ghana's Programme for Results Ghana Secondary Cities Support Programme (GSCSP). The Assembly is a beneficiary of the thirty-five districts countrywide. The preparation of Spatial Development Framework and Structure Plan is one of the components of the programme.

After the tendering process and negotiations, the contract was awarded to Global Development Associates Company Limited. The project is being executive on behalf of New Juaben South Municipal Assembly. The Main Program Development Objective (PDO) of the GSCSP is to "improve urban management and basic urban services in participating municipal assemblies". To achieve this main objective, the program, will focus on two results areas; (i) improved institutional performance of urban management, and (ii) improved basic urban services in participating Municipal Assemblies (MAs).

The project has five phases: inception, analysis of the current situation, stakeholder engagements, draft final reports and final reports which include the structure plan for Koforidua.

## 1.2 Definition and Purpose of the Municipal Spatial Development Framework

The Land Use and Spatial Planning Act, 2016 (Act 925) mandates the preparation of SDF at the district level. The SDF is a long term (20 years) spatial strategy to achieve defined social, economic and environmental policies in the New Juaben South Municipal. The SDF addresses the spatial development implications of issues like economic development, employment, housing, infrastructure services (waste, water, energy, etc.), education, health care, tourism and leisure, transportation, communications, culture and the environment.

The preparation of the SDF is an opportunity to revisit, interact with, and build on visions for the development of the municipal. It defines core policy goals and objectives for land use, from which the planning and resourcing of investment in natural resources utilization, infrastructure, services, human settlements and environment will flow. An SDF will also provide the base plans which show and attend to the related spatial dimensions of the above indicated elements of socio-economic development.

### 1.3 Methodology on the Situational Analysis

The objective of the analysis is to allow the Consultants to obtain a comprehensive understanding of the existing situation and conditions as well as the planning and development of the framework. The task undertaken include an analysis of the natural environment, population and human settlement, economy, social development and the man-made environment. The objective is to inquire and analyze what exists and how the Municipality works with the available information. Conclusions will be drawn in the form of findings, development opportunities and challenges, and critical factors will be measured against the municipal and urban requirements of the Municipality.

Site visits were conducted in the NJSM including surrounding areas to gain an understanding of the existing conditions and issues impacting. Formal and informal meetings with Stakeholders were conducted to collect additional data and to inform the detailed studies. An Inception meeting was held with some staff in the MMDAs so that the Project Team could understand the development and planning issues experienced within the individual Districts

A vision and development concept will be derived from the analysis and findings. This will be the key drivers that will shape the framework and will be measured against the overall municipal vision, mission and goals. The development concept will be a broad land use categorized plan which would visually depict the vision. Development proposals from the thematic areas will be developed to form the spatial development framework.

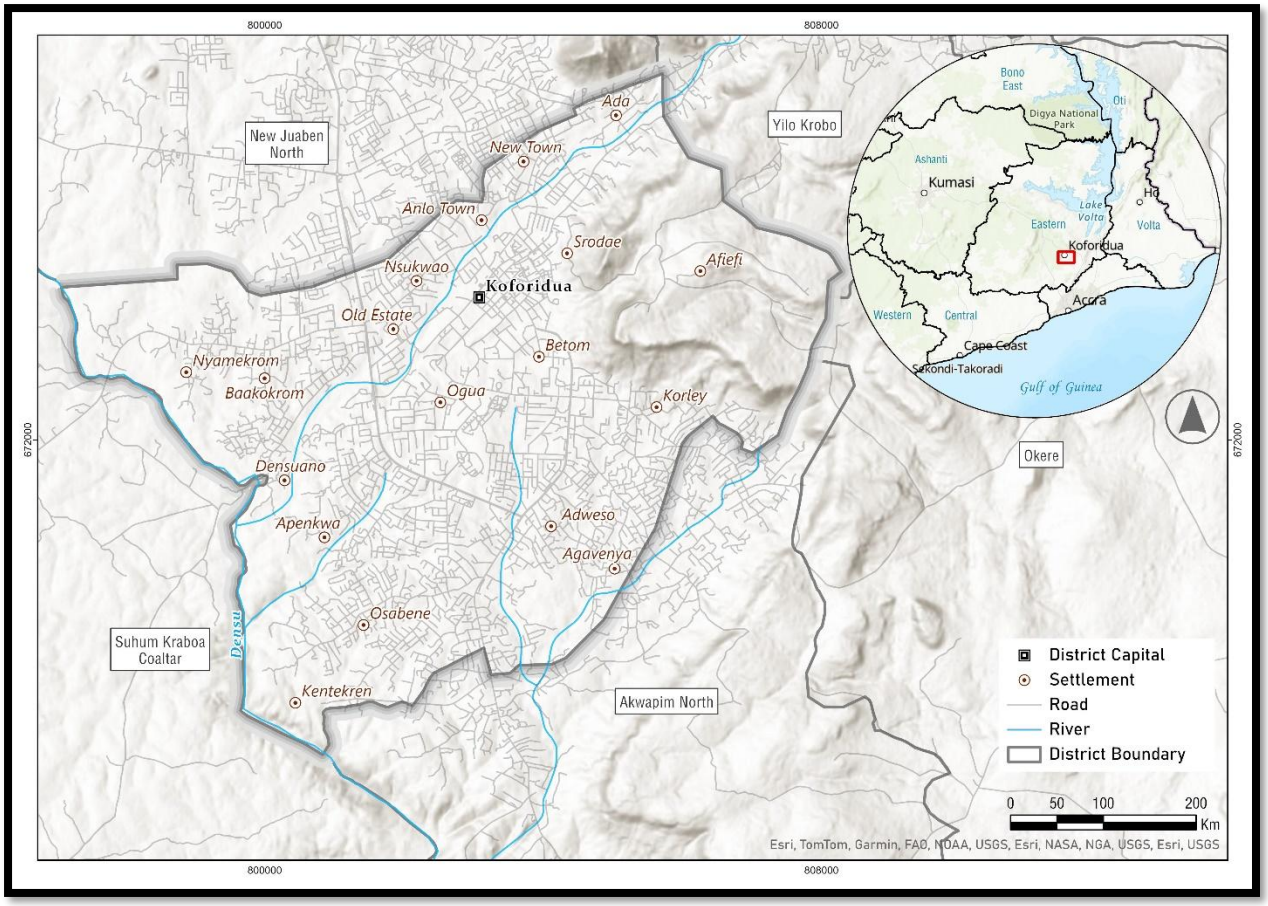
### 1.4 Brief Description of the New Juaben South Municipality

The New Juaben South Municipality was established in 1988 by the Legislative instrument (LI) 1426 with its capital as Koforidua, serving as the Political and Administrative capital of the Eastern Region. Prior, to this the Municipality was referred as New Juaben Municipal Assembly but in 2017 it was divided into two (2); New Juaben South and New Juaben North by the L.I 2301 and L.I 2302 respectively. It covers a land area of about 60 square kilometres which happens to be the smallest in the Region

It shares boundaries on the north-east with New Juaben North Municipality, to the south-east with Akwapim North Municipal Yilo Krobo Municipal on the east and Suhum Municipal on the west. Figure 1.1 shows a map depicting the location of the Municipality in context. The strategic location of New Juaben South, sharing boundaries with these municipalities that are known in agricultural production, provides an opportunity to develop agro-processing facilities

to make use of raw materials from these areas. The rural part of the district is rich in fertile agricultural lands and suitable for large scale farming, cattle rearing and poultry.

The Municipality is heterogonous in terms of ethnicity. It inhabits Akans, Ga-Adangbes, Ewes and the North. The Akan population has a fair mix of Asantes, Kwahu's and Akims with a sizeable number of Akwapims. In also, NJSM is predominantly Christian, constituting a population of 82.8 percent, Moslems 6.1 percent and traditionalists 2.4 percent.




*Source: GLODA, 2025*

*Figure 1.1 Location Map of New Juaben South Municipality*

### 1.5 Need for a Spatial Development Framework (SDF) in the Municipality

The relevance of the SDF provides a long-term, strategic vision for the spatial development of the district, outlining desired future outcomes and guiding development decisions.

The spatial plan to be prepared will prove the balance between the economic, environmental and social development of the Municipality. It is the expectation that the plan will create better relations and cooperation between the urban and rural areas, enhance accessibility for the

communities to services and resources, preserve the natural heritage, promote tourism activities that can be sustainable, reduce the footprint of human activity on the environment and also decrease the risk of duplication of development efforts. The presence of a huge population in the capital noticeably generates economic activities. Markets and other commercial centres play a huge role in the municipal.

Therefore, it is imperative to align the Municipal Spatial Development Framework with the National Spatial Development Framework (NSDF), as the region lacks a regional spatial plan. The Municipal Assembly must plan which instruments to use to regulate the land use activities, decide which developments and resource allocations must take priority and prepare the plans for municipal spatial development framework and structure plan.

The development of the MSDFs will aid in the rational allocation of resources, ensuring that investments are made in areas that will contribute most to overall development goals, provide a basis for making spatially informed strategic decisions, ensuring that development activities are well-planned and aligned with overall objectives, and support to identify infrastructure needs and prioritize investments in areas that will support economic growth and improve quality of life.

### 1.6 Legal, Policy and Planning Context

- Land Use and Spatial Planning Act 2016 (Act 925)

The main legal framework guiding the preparation of the SDFs and Structure Plans is the Land Use and Spatial Planning Act 2016, Act 925. Section 58 of the Act spells out the key object of the SDF as ensuring the judicious use of land and support spatial strategy for coordinated and integrated district development. The National Development Planning (System) Act 1994, Act 480 and Act 925 provide for integrated district planning. Therefore, the MSDF has legal standing and importance. Thus, it is not only a necessity but also a legal requirement. The preparation of the SDF is guided by the Spatial Planning Model Guidelines and the Manual for Preparing Spatial Plans.

In addition, Section 62, sub-section 2 prescribes that a Structure Plan shall be prepared for areas prescribed in the Municipal Spatial Development Framework.

- Scope of the Local Government System

The Local Government System is guided by the Local Governance Act, 2016 (Act 936) which replaced the Local Government Act 2003, (Act 656). The objective is “to secure the effective

administration and management of the decentralized local government system in the country. The regional level administration of Ghana is interwoven into the local government structure and administration through the RCC. The main role of the regional level is to serve as an intermediary between the central government and the local level. The Metropolitan, Municipal and District Assembly (MMDA) is a hybrid composition which combines both elected and appointed officials. 70 percent of its members are elected by people whilst 30 percent are appointed by the central government, specifically the president in consultation with the traditional authorities and other interest groups but subject to the approval of two-thirds of the MMDA members present and voting. The Assembly is described as the highest political authority in the district that has deliberative, legislative and executive powers.

- National Medium-Term Development Policy Framework (NMTDPF)

The National Medium Term Development Policy Framework (NMTDPF, 2022-2025) provides the framework for plan preparation for development in Ghana. The NMTDPF is structured around six main themes: (i) economic development; (ii) social development; (iii) environment, infrastructure and human settlement; (iv) governance, corruption and accountability; (v) emergency planning and response; and (vi) implementation coordination, monitoring and evaluation.

- National Urban Policy and Action Plan

The first National Urban Policy (NUP) in Ghana was formulated in 2011 with the goal of promoting "sustainable, spatially integrated and orderly development of urban settlements with adequate housing and services, efficient institutions, sound living and working environment". The document outlines the main sectoral issues, the guiding principles, twelve objectives and the actions needed to achieve them. The key objectives that relate to the NSDF are the following: facilitate balanced redistribution of urban population; promote spatially integrated hierarchy of urban centres; ensure effective planning and management of urban growth and sprawl; improve environmental quality of urban life and improve access to affordable low-income housing. The NUP Action Plan, accompanying the main document, defines a few key activities under each policy initiative along with a timetable and implementing.

- National Spatial Development Framework (NSDF)

The National Spatial Development Framework (NSDF), at the apex of the country's spatial planning system, is a long-term, 20-year strategy for the spatial development. It has been

informed by: (i) our Medium-Term National Development Policy Frameworks, the Ghana Shared Growth Development Agenda's I and II, which set out the overall measures we are taking to accelerate Ghana's development; (ii) our sectoral plans and policies in areas such as economy, transport, education, health, environment, energy, climate change and land use; and (iii) the views of several government agencies at the national, regional and district levels, particularly those that participated in the country-wide consultations undertaken by the NSDF team.

NSDF plays a vital role in guiding local authorities in preparing regional, sub-regional and district level spatial development frameworks and lower-level plans. Each part of the country must use its strengths to build a prosperous, healthy and sustainable future with optimal impact on the livelihoods of people and their surroundings. This NSDF seeks to harness these strengths, foster collaboration and ensure spatially integrated development throughout Ghana.

Currently, Eastern region has no regional SDF, however existing policies and plans for the region have been thoroughly reviewed as an input to New Juaben South Municipal Spatial Development Framework (NJSMSDF). The Municipal Spatial Development Framework is informed by the NSDF, the National Infrastructure Plan (NIP), the National Urban Policy and the MTDP for New Juaben South Municipal (2022-2025) as well as other relevant National and Regional-level policies, plans, projects and programmes.

## 1.7 Governance and Institutional Framework for the Preparation of Municipal Spatial Plans

The preparation of MSDF is initiated by the Municipal Assembly through the Spatial Planning Committee (SPC). The Land Use and Spatial Planning Act, 2016 (Act 925) details that the Physical Planning Department may ‘outsource’ this task in accordance with the provisions in the Public Procurement Act 2003, (Act 663). The Municipal Spatial Planning Committee is expected to approve the final SDF. It is expected that a Project Management Team would be constituted in accordance with the Spatial Planning Model Guidelines. The Team constitutes the Municipal Chief Executive (MCE) or Municipal Coordinating Directors (MCD), Regional and Municipal Economic and the Physical Planning Officers with at least one representative from the Spatial Planning Committee and other Municipal Departmental Directors or other agencies as deemed necessary.

## 1.8 Report Organization

The SDF report is organized into ten (10) chapters. The chapter one looks at the background, objectives of the district SDF, legal framework and policy for SDF, governance and institutional framework for SDF, location and size of district, justification for District SDF, Methodology for data collection and analysis, limitations and organization of the report.

Chapter two of the report looks at some environmental related policies, relief and drainage, topography and vegetation, geology and soils, land cover analysis, biodiversity, climate and resilience.

Chapter three of the report discusses population dynamics, urbanization and human settlement development by looking at the historical population trends, age-sex structure, age-dependency ratio, urbanization and migration, description of major settlements and distribution, settlement patterns, hierarchy and functions.

Chapter four looks at man-made environment by analysing thematic areas such as water infrastructure and services, sewerage infrastructure and services, storm water infrastructure and services, communication infrastructure and services, energy infrastructure and services, transportation and road infrastructure.

Chapter five of the report the report looks at the economic profile of the municipality by discussing employment structure of the economy, economic structure by GDP contribution and local economic development.

Chapter six of the report looks at social development by discusses themes such as education, health, housing, gender and development.

Chapter seven of the report harmonizes the development challenges and opportunities of all the thematic areas discussed in the previous chapters.

Chapter eight of the report looks at the vision, goals, objectives, strategies of the SDF. It also discusses the scenario options for development and development proposals for each of the sectors.

Chapter nine of the report looks at the implementation plan of the SDF by discussing the timeframe, phasing, cost of proposals and implementing agencies for the implementation of the actions developed under the SDF sectors.

Chapter ten looks at the monitoring and evaluation framework by discussing the stakeholder analysis, monitoring and evaluation of the SDF actions and the plan.

## POPUATION AND HUMAN SETTLEMENT

### 2.1 Introduction

The World Bank projects that Ghana's population will increase by about 13 million people and reach about 40 million by 2035. With an annual urban growth rate of around 3 percent, Ghana's urban population is expected to increase from about 57 percent of the total population in 2020 to around 65 percent by 2030. According to the 2021 Population and Housing Census, the population of Eastern Region is about 2.9 million.

This chapter discuses population trends, distribution and explores the theme on urbanization of the Municipality, the human settlement development of the Municipality and summarizes the findings.

### 2.2 Population Trends, Distribution and Density of the Municipality

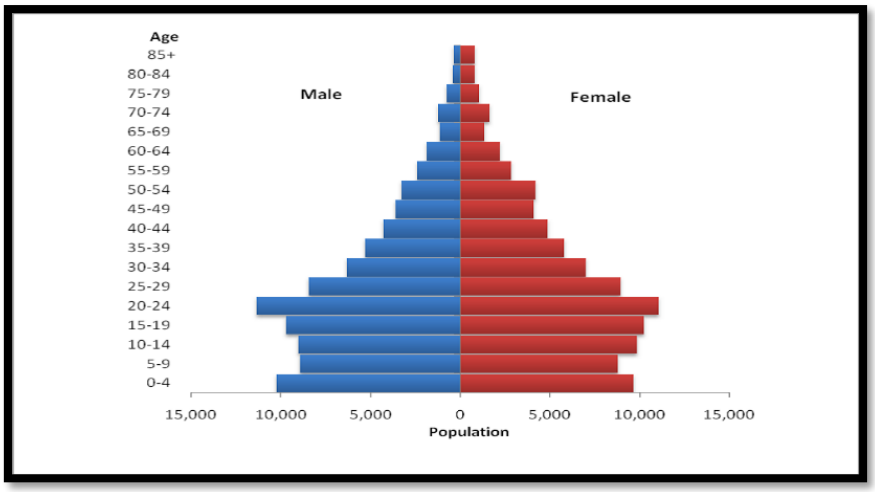
According to the 2021 Population and Housing Census, the total population for New Juaben South Municipal is 129,741 and it accounts for 4.3 percent of the total population in the Eastern Region. However, it is projected that by 2045 the total population will be 228,480 at a growth rate of 0.9 percent. It indicates that there are more females (51.7%) than males (48.30%) in the Municipality.

In 2010, the total population for Municipality was at 183,727 with a growth rate of 2.5% when the Municipality was previously New Juaben Municipality. Hence the reduction in population is due to the division of the Municipality into two (2). Presently, the population density of the NJSM is 2,087.61 per square kilometer.

### 2.3 Age-Sex Structure and Age Dependency Ratio

The Municipality has a youthful population accounting for 39.8 percent (population between 15 and 35). The Municipality's overall age dependence ratio is 56.07. Men have a greater age dependency ratio at 56.88 than females at 12.83.

The Municipality also account for a sex ratio of 93.3 which implies that there are less males than females. However, as they grow, males tend to reduce in number than females – a situation which may be ascribed to the lesser survival rate of males than females. Figure 2.1 shows the age and sex structure for the Municipality.

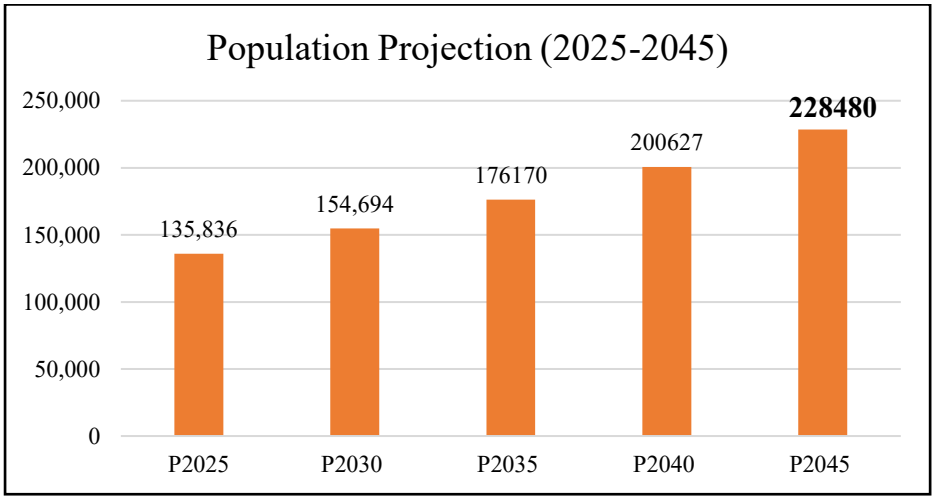



*Source: NJSM MTDP, 2022*

*Figure 2.1 Age and Sex Structure*

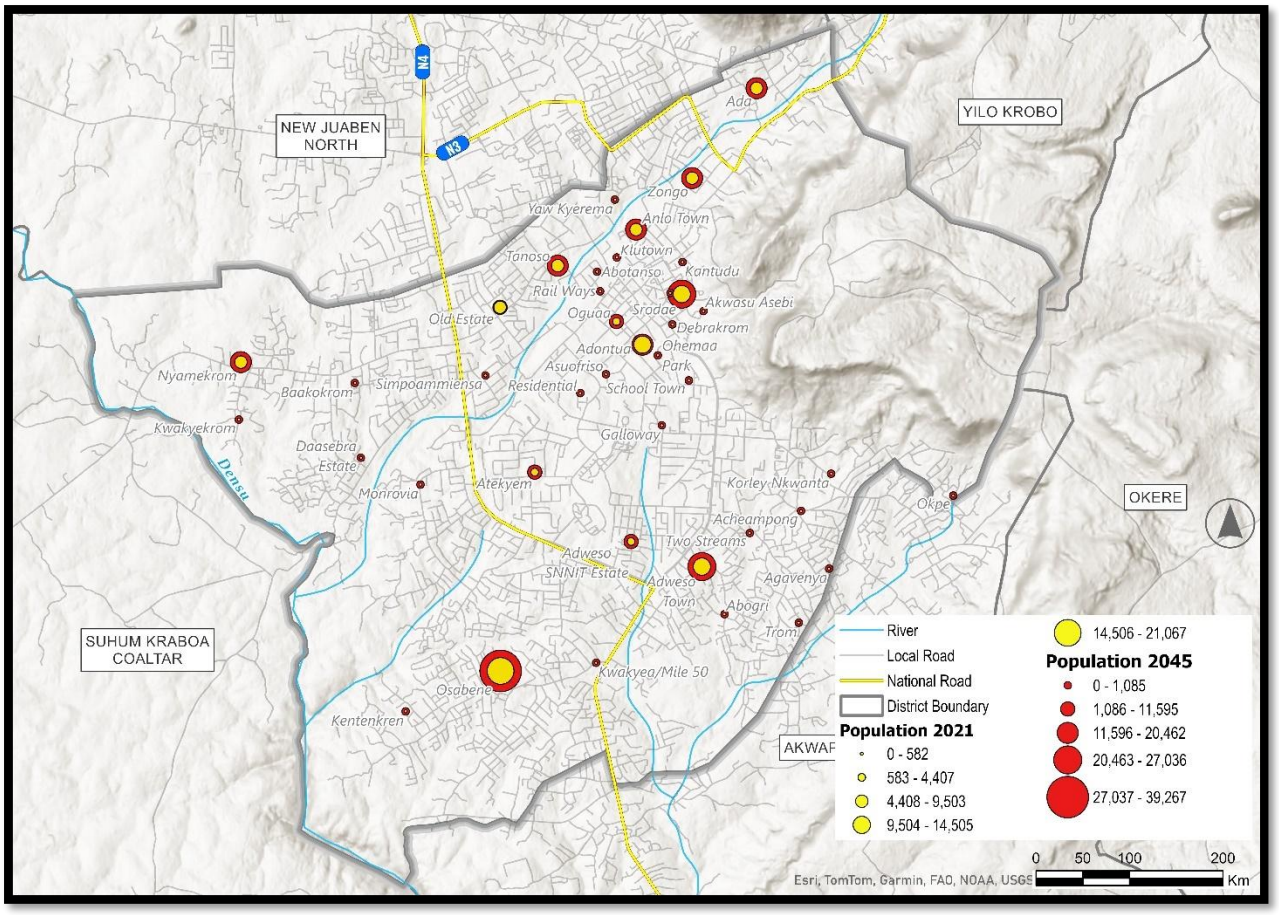
### 2.4 Project Population and Urbanisation

At the end of the planned period (2045), it is projected that the total population will be 228,480. As of 2021, the Municipality is largely urban with a population of 124,674 living in urban localities and a population of 5,067 living in rural localities. This therefore implies that urbanization in the Municipality accounts for 95% of the population. It is important to note that at the end of the planned period, the population in rural communities will still remain rural. Figure2.2 shows population projection by 2045; whiles figure 2.3 depicts a map of the population projection of the end of the planned period. At the end of the planned period, the project population Osabene will be about 39,267 whiles the least populated town will be Two Streams with a population 1085.




*Source: GLODA, 2025*

*Figure 2.2 Population Projection by 2045*




*Source: GLODA, 2025*

*Figure 2.3 Population Projection of Settlements 2045*

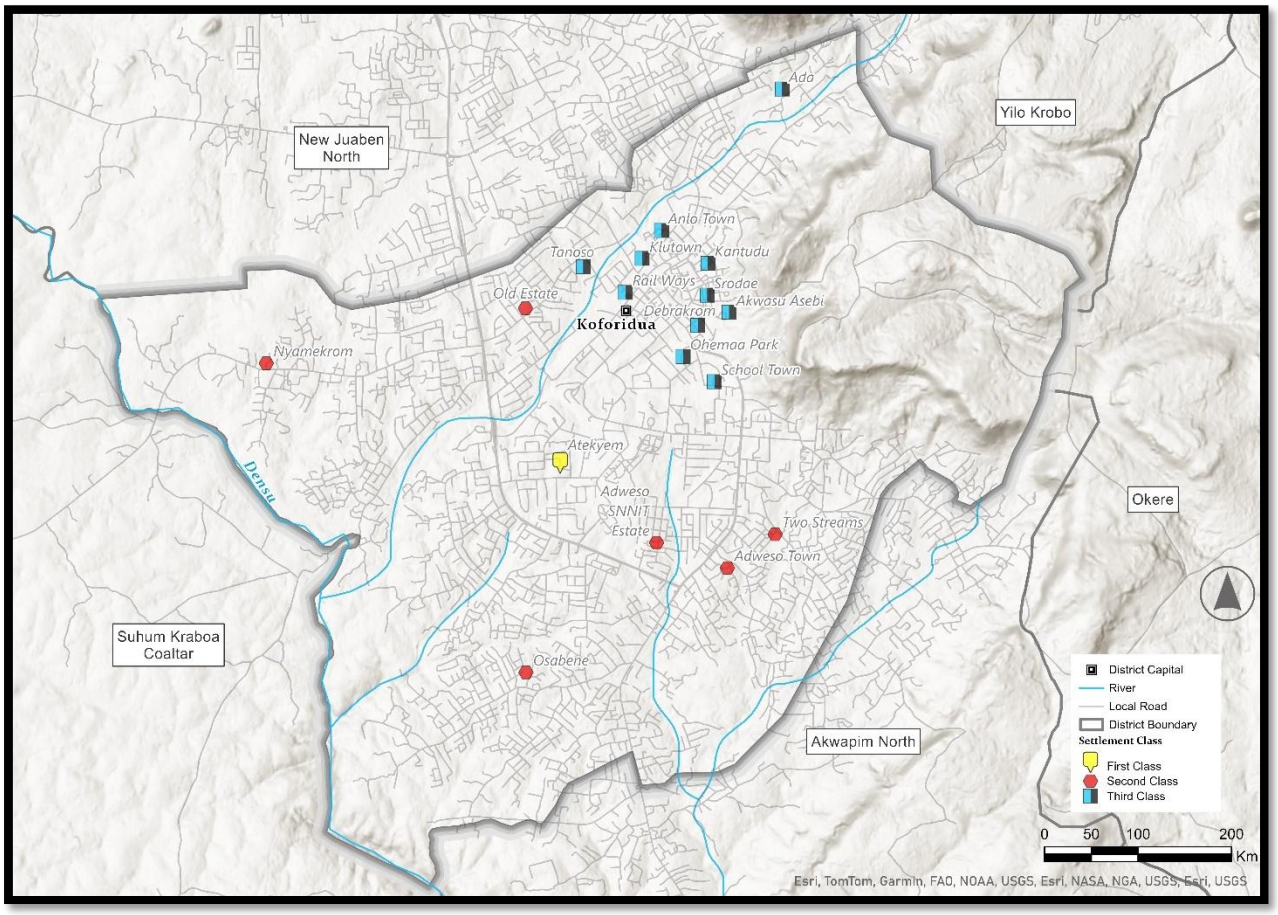
## 2.5 Hierarchy of Settlements

Settlement hierarchy is a useful model in understanding the relationship that exists between different places where people live and its services available. The concept is being explored to gain insights on the size class of settlements. Communities grow in size and function, so there is the need to know the level of services that may be required to support their functioning.

The National Spatial Development Framework (NSDF) has identified three main hierarchy of settlements, namely:

- First order (population of 10,000 people and above)
- Second hierarchy (population are between 5,000 to 10,000)
- Third hierarchy (settlements between 500 to 5000 thresholds)

The settlements in the Municipality are categorized into three categories: First Order, Second and Third Hierarchy. Currently, Osabene, Srodae, Betom and Adweso are described as the First Order Settlements. By the end of the planned period, Anlo Town, Old Estate, Nsukwao, Ada, Zongo and Nyamekrom would have moved to be First Order settlements.




*Source: GLODA, 2025*

*Figure 2.4 Classes of Settlement*

## 2.6 Summary of Findings

- The current population of NJSM is 135,856. It is projected to 228,480 by the end of the planned period.
- Females are the dominant population at a percentage of 51.70.
- The Municipality have a youthful population at 39.8 percent.
- The Municipality is dominantly urban at 95 percent.
- Currently, the zonal councils; Osabene, Srodae, Betom and Adweso are noted to be in first order settlements.

# UNDERSTANDING THE ECONOMY OF THE NEW JUABEN SOUTH MUNICIPALITY

## 3.1 Introduction

Understanding the economy of New Juaben South Municipality is critical in developing goals and strategies to propel the economic development of the Municipality. This section of the report provides an analysis of the changing trends in the structure of the Municipality's economy over the last decade by focusing on the employment structure. It considers other factors such as unemployment and the spatiality of economic activities where the data is available. It provides valuable insights in knowing the sectors and subsectors of the economy that are performing as well as those that are not performing as expected. With this understanding pragmatic strategies can be later developed to help transform the economy of NJSM. The next section discusses the employment structure of the Municipality's economy.

## 3.2 Economic Profile of the Eastern Region

In reference to the 2021 Population and Housing Census Report on Economic Activity, the total population of the economically active in the Eastern region is 1,150,20. Out of this, the population employed is 1,014,849 while 135,352 are unemployed. This demonstrates that more than two thirds (69%) of the population in the Eastern Region are employed while 4.1 percent were unemployed. The rest (27.3%) were not economically active.

## 3.3 Economic Structure of New Juaben South Municipal

The economic activities of the Municipality include Agriculture, Commerce mainly Wholesale/Retail Trade, Manufacturing (Agro - Processing) and Service. The service sector constitutes 82.51 percent, industrial manufacturing and processing constitute 14.29 percent; and agriculture constitutes 3.18 percent as shown in Table 3.1. Agricultural activities are carried out in the small settlements and the peri-urban areas.

Generally, the unemployment rate is 11.1% (Population 15 years and older), comprising unemployment rates for males at 10.6 percent and 11.6 percent for females.

| Sector | Sector/Sub-Sector | Number of Employees | Percent Sector Share | Percentage Share of Sub-Sectors |
|---|---|---|---|---|
| **Agric** | Agriculture, forestry and fishing | 1546 | 3.18 | 3.18 |
| **Industry** | Manufacturing | 3347 | 6.89 | 48.25 |
| | Mining and Quarrying | 41 | 0.08 | 0.59 |
| | Electricity, gas, steam and air-conditioning supply | 381 | 0.79 | 5.49 |
| | Water supply, sewerage, waste management and remediation activities | 136 | 0.28 | 1.96 |
| | Construction | 3032 | 6.25 | 43.71 |
| **Services** | Transportation and storage | 2590 | 5.33 | 6.46 |
| | Wholesale and retail trade; repair of motor vehicles | 14519 | 29.90 | 36.23 |
| | Other service activities | 6209 | 12.79 | 15.50 |
| | Accommodation and food service activities | 3274 | 6.74 | 8.17 |
| | Arts, entertainment and recreation | 676 | 1.39 | 1.69 |
| | Education | 4747 | 9.78 | 11.85 |
| | Public administration and defence; compulsory social security | 1580 | 3.25 | 3.94 |
| | Activities of households as employees; undifferentiated goods and services production. | 228 | 0.47 | 0.57 |
| | Professional, scientific and technical activities | 822 | 1.69 | 2.05 |
| | Human health and social work activities | 2622 | 5.40 | 6.54 |
| | Information and communication | 361 | 0.74 | 0.90 |
| | Real estate activities | 93 | 0.19 | 0.23 |
| | Financial and Insurance activities | 1420 | 2.92 | 3.54 |
| | Administrative and support service activities | 907 | 1.87 | 2.26 |
| | Activities of extraterritorial organizations and bodies | 22 | 0.05 | 0.05 |
| **Total** | | **48,553** | **100** | |

Source: GLODA, 2025 based on 2021 PHC

Table 3.1: Occupations of Employment by Sub-Sectors of the Economy from 2021

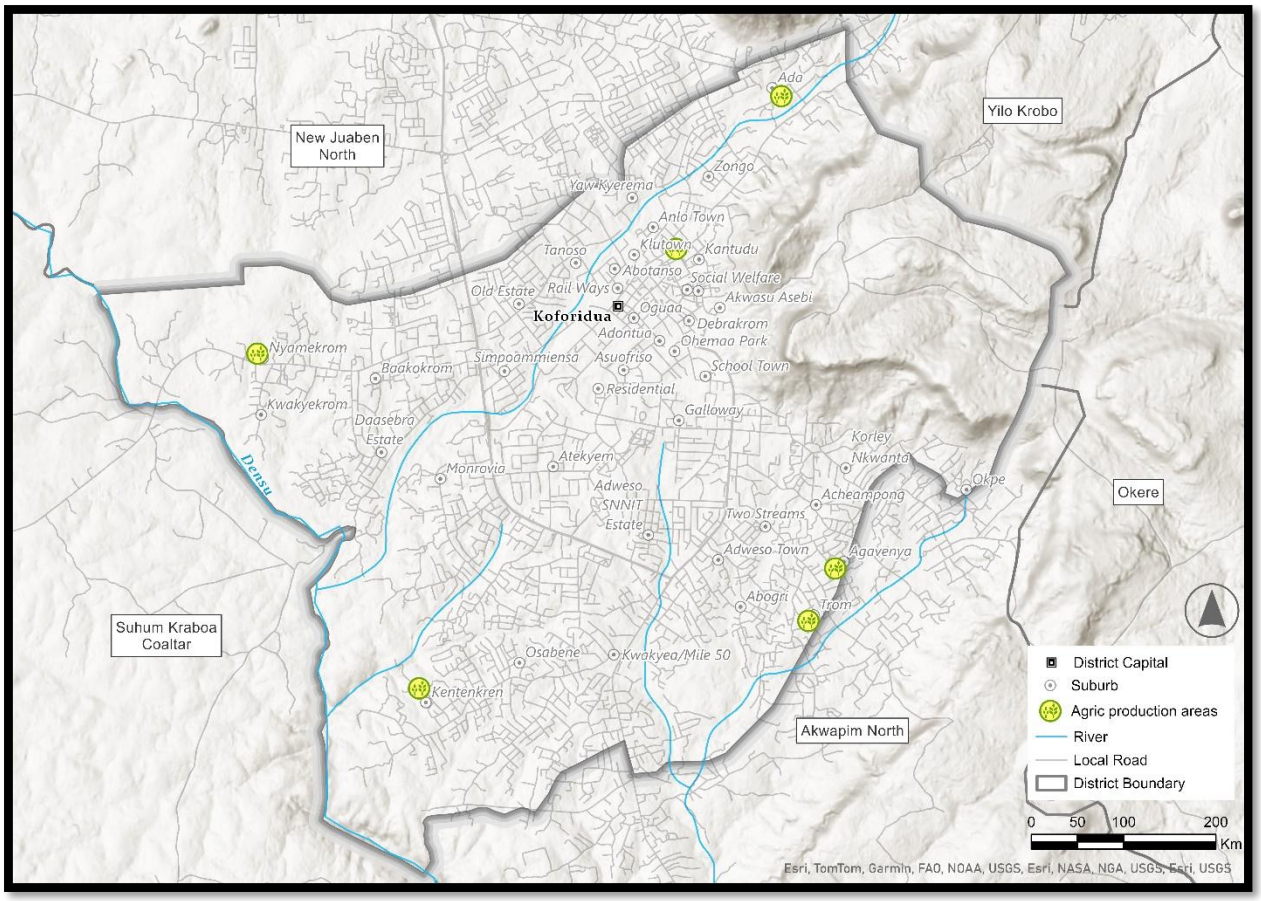
### 3.4 The Contribution of the Agricultural Sector to the Economy of NJSM

The agricultural sector contributes 3.18 percent to economy. It has an estimated farmer population of about 7,000 farmers and These farmers are mainly into animal rearing (mostly small ruminants- sheep and goats), poultry, piggery, turkey etc. and crop cultivation. Major crops cultivated include cassava, maize, plantain, cocoyam, and vegetables. Non-traditional commodities like snails, mushrooms, rabbits, grass cutter and catfish are also gaining grounds in NJSM.

Major amongst the agricultural activities is crop farming engaging 92.6 percent of the agricultural households followed by livestock rearing (35.8%). Less than one percent of agricultural households is engaged in either fish farming (0.1%) or tree planting (0.4%). A relatively higher proportion of rural agricultural households are engaged in crop farming (95.7%) compared to urban agricultural households (89.6%). Livestock rearing is also relatively more common in the rural areas (38.4%) than urban areas (33.3%).

A total of three thousand seven hundred and forty-nine (3,749) farmers benefited from Planting for Food and Jobs programme (PFJ). The benefits were the subsidy on provision of fertilizer and seeds. Out of the total beneficiaries, two thousand nine hundred and ninety-three (2,993) were males and seven hundred fifty-six (756) were females representing 20% of the total beneficiaries. The challenges encountered were late supply of PFJ inputs, especially vegetables seeds and no hybrid maize. Figure 3.1 below shows the agricultural production areas in the Municipality.

The Municipality intend to improve agriculture through programmes such as Planting for Food and Jobs, introduction to climate smart agriculture, implementation of one district one factory, improve financially, enhance efficiency and competitiveness of small and medium scale enterprises, and improve fiscal revenue mobilization, through capacity building strength institutions. Vaccination of reared animals are annually done, however generally, local farmers do not vaccinate their birds. There is record of outbreak of scheduled diseases.




*Source: GLODA, 2025*

*Figure 3.1: Agricultural production areas*

### 3.5 The Contribution of the Commercial Sector to the Economy of NJSM

The municipal has two major markets for commercial activities including marketing farm produce. There are the Central Business (CBD) and Juaben Serwaa and Central Market. Furthermore, three (3) minor markets are Adweso market, Zongo market and Agartha market. One of the few beads markets in the country is in the Municipality located at Gallaway where beads products from all over the world are sold to customers across the world. The Markets are organized on either daily or weekly basis. Mondays and Thursdays are Juaben Serwaa and Central Market days while Thursdays are beads market days.

The markets days are characterized with overcrowded traders and vehicular traffic congestion all trying to survive in a limited land space earmarked as the Koforidua central market. Koforidua central Market popularly known as the Juaben Serwaa Market is the oldest in the catchment area with thousands of market stalls and stores with about three transport terminals

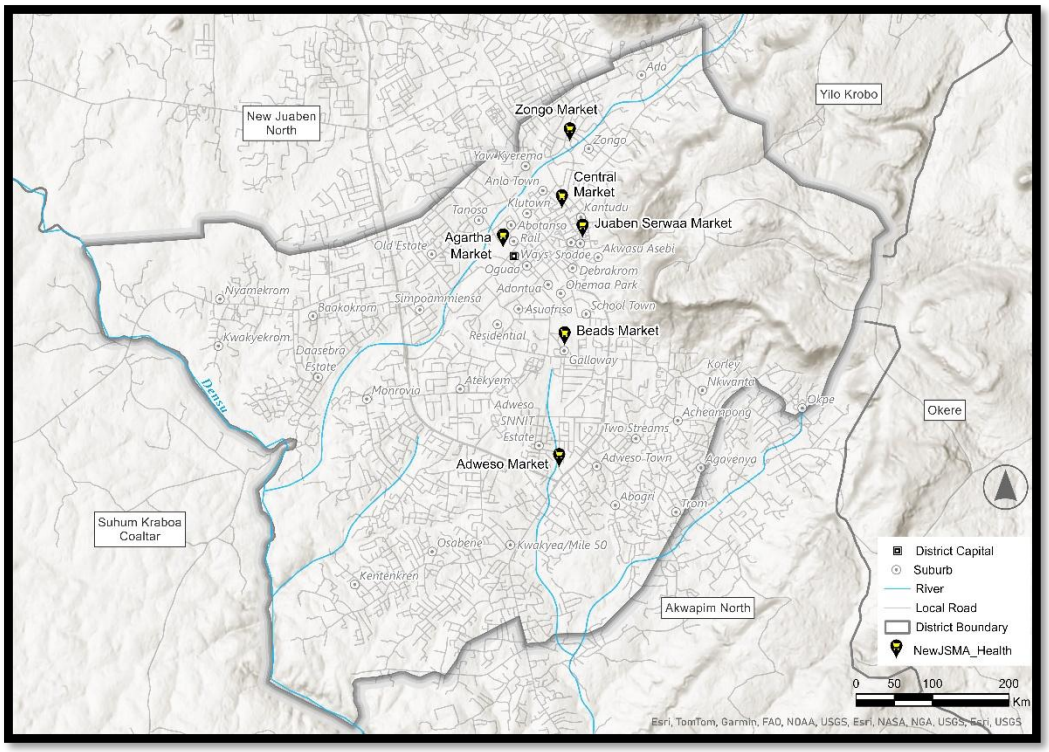
at different locations within the market set up. Figure 3.2 shows the locational map of markets in the Municipality.

NJSM engages in the exchange of goods and services within and outside the Municipality. The types of goods that flow within and outside the Municipality are classified in agricultural and industrial goods. Koforidua is the major market centre in the Municipality which serve as a commercial hub in the area and thus attract a large quantity of goods. Table 3.1 shows the outward and inward commodity flow and economic linkages with other MMDAs.

| Major Trade Partners | **Types of Commodities Traded** | |
|---|---|---|
| | Inflows | Outflows |
| Fanteakwa | Tubers, vegetables, eggs, plantains, snails, legumes, cereals, fruits, pottery | Clothing, provisions, food stuff |
| Kibi | Clothes& footwear, cooking utensils, processed food, cosmetics, jewellery, others, eggs | Fish, tubers, vegetables, plantain, snails, legumes, firewood, yam, cocoyam |
| Accra | Clothes& footwear, cooking utensils, processed food, cosmetics, jewellery | Fish, tubers, vegetables, plantain, snails, legumes, firewood, yam, cocoyam |
| Kumasi | Clothes& footwear, cooking utensils, processed food, cosmetics, jewellery | Fish, tubers, vegetables, plantain, snails, legumes, charcoal, firewood, yam, cocoyam |
| Suhum | Tubers, vegetables, eggs, plantains, legumes, cereals, fruits, | Same |
| Atiwa | Tubers, vegetables, eggs, plantains, snails, legumes, fruits, | Same |

*Source: MPCU, 2017*

*Table 3.2 Major Trade Partners of New Juaben South Municipal*




*Source: GLODA, 2025*

*Figure: 3.2 Location of Markets in the Municipality*



*Source: GLODA, 2025*

*Figure 3.3 Central Market*



*Source: GLODA, 2025*

*Figure 3.4: Agartha Market*



*Source: GLODA, 2025*
*Figure: 3.5 Juaben-Serwaa Market*

### 3.6 Contribution of the Service Sector to the Economy of NJSM

The service sector is the fastest growing economic sector in the Municipality employing 82.51 percent of the population. A large number of small and medium scale enterprises have sprung up in the Municipality over the past decade mostly in the area of ICT and other business set-ups such as restaurants, hotels, hair-dressing salons, repair shops (mechanics, electricians, sprayers etc.), spare parts sales, drug/chemical stores, pharmacies, supermarkets, drinking spots, photo studios and communication centres. There exist other service providers like the professional, scientific and technical activities, administrative and support services, public administration and defence, human health and social work, and finance and insurance etc.

### 3.7 The Contribution of the Industrial/Manufacturing Sector to the Economy

The industrial, manufacturing and processing sector contributes 14.29 percent to the economy of the Municipality. Industrial activities are mostly medium and small scale involving the production of alcohol and non-alcoholic beverages, textiles, crafts, soap making, carpentry and joinery, traditional medicine, palm and kernel oil production and beads making. A wood village has been established in Nyamekrom with the objective to improve on production efficiency, skills and income generating capability.

The private sector is the brainpower of the industrial sector in the Municipality. The establishment of block moulding factories, brick and tile, chippings, sand and stone and other related activities have significantly contributed to real estate development, road construction and providing inputs for housing development.

Agro-processing is the best ways of adding value to the food and cash crops produced in large quantities in the Municipality and to avoid the perianal bumper harvest with its attendant high post-harvest loses. The agro-processing activities in the Municipality are mostly small scale and comprise palm oil extraction and processing located at Nyamekrom, Ada magazine, Kwakyekrom (not operational) and Adweso (not operational), soap making situated at Ada magazine and gari-processing located at Atekyem, Kwasi Akoli, Monrovia, Adweso, Ada Magazine and Trom.

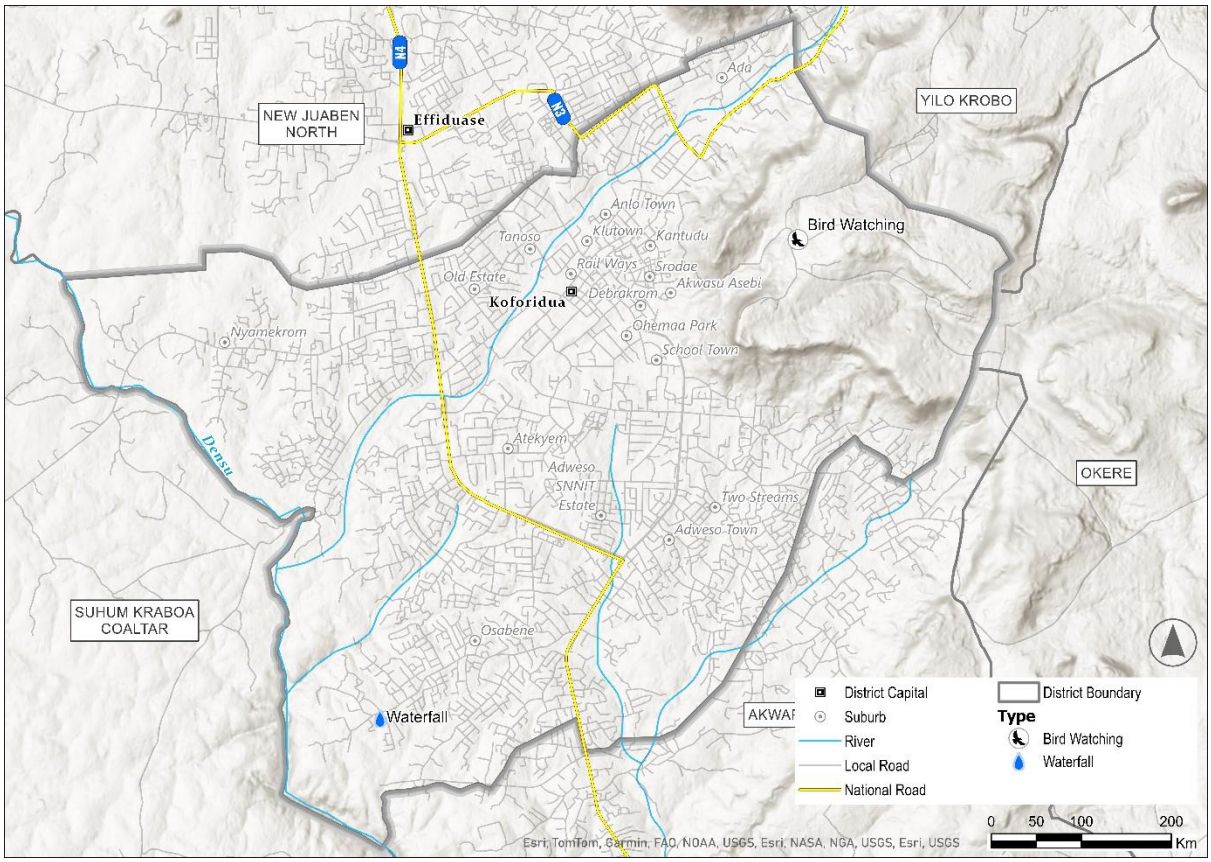
### 3.8 The Contribution of the Tourism Sector to the Economy

The tourism sector significantly boosts the local economy of the Municipality. Unfortunately, it remains the least sector to be fully exploited. Currently, the Municipality can boast of

Kentenkeren Waterfall and Obuotabiri Bird View which is even not highly patronized due to lack of some critical infrastructure like car park, receptive center among others.

An important potential for tourism attraction is the top of Obuotabiri Mountain. It is a fascinating place, a trek to the peak where the regular keep-fit activities take place, and also an opportunity to see the aerial view of Koforidua. It is important to rehabilitate the access to the facility in order to exploit the potential. Figure 3.3 depicts a map of tourist sites and potential within the Municipality.

The development of tourism and provision of hotel accommodation are inseparable. Tourists need comfortable accommodation and restaurants to provide both local and continental dishes. Presently, there are a few hotels located in the Municipality with a potential for more including restaurants. To improve this sector, it is imperative to have efficient transportation facilities, water and electricity supply, telecommunication and also ensure public safety at the tourist sites. The active involvement of the private sector and the technical support of the Ghana Tourist Authority is obligated.




*Source: GLODA, 2025*

*Figure: 3.3 Tourists Attractions in the Municipality*

### 3.9 Local Economic Development (LED)

Local Economic Development (LED) is an approach towards economic development which allows and encourages local people to work together to achieve sustainable economic growth and development thereby bringing economic benefits and improved quality of life for all residents in a local municipal area.

The country has an LED Policy and Implementation Plan (2024-2029) with the purpose to enhance local entrepreneurship and Small and Medium Scale Entrepreneurs' growth. This is through the provision of technical and financial support, boosting agricultural productivity, modernizing industrial zones, job creation initiatives aimed at generating employment.

Some of the LED initiatives at the Municipality includes Palm Kernel Processing at Ada Sentimental Community, vegetable, snails and catfish production.

**Challenges of the Local Economic Development (LED)**

• Poor entrepreneurial culture among inhabitants
• Poor and inadequate infrastructure such as roads, water, electricity, sanitation etc.
• Inadequate knowledge of the potentials of LED
• Inadequate business management and skills training

**Strategies for the promotion of LED**

• Provide infrastructure such as roads, electricity/lighting, markets, water, storage facilities, processing facilities etc.
• Identify and exploit existing and potential natural resources, expertise and facilitate access to financial resources for LED.
• Equip local economic actors with the requisite skills, knowledge and attitudes and build capacity of LED institutions at all levels.

### 3.10 Summary of Findings

The following are observations noted in the urban economy sector of the Municipality. They are;

- The dominant sector that contributes to the Municipality's economy is the service sector at a rate of 82.51 percent
- The rate of unemployment rate is at 11.1 percent

- The Municipality has the potential of expanding the tourism and agro-processing sectors of the economy
- NJSM has the potential to exploit of LED to drive economic growth of the Municipality.

# NATURAL ENVIRONMENT

## 4.1 Introduction

The sustainability of the Eastern Region's economic and social development depends on proper management of the natural resource base of the environment in general. Therefore, discussions on how New Juaben South Municipal aims to conserve and protect its environment to eventually contribute to the region's goal is presented.

The section presents the environmental policies that guide the Municipal, highlighting the importance of the natural resources within the context of the Municipality and emphasizes the threats on these resources. An environmental spatial analysis of NJSM utilized various national and regional data sets and analyzed the information to provide criteria used in identifying environmental constraints. Also, it narrates the issues and considerations on natural environment of the Municipality.

## 4.2 Environmental Policies

- National Environmental Policy

In 1995 Ghana's Environmental Policy was enacted in respect for all relevant principles and themes of environment and sustainable development, and the Environmental Protection Agency was identified as the lead agency to drive the process towards sustainable development.

- Ghana National Climate Change Policy

The policy developed in 2013 is to ensure a climate-resilient and climate-compatible economy while achieving sustainable development through equitable low-carbon economic growth for Ghana. The policy is being mainstreamed into national development strategies, the private sector, civil sector organizations and donor partners are all contributing to Ghana's response. The policy is prioritized in five (5) main areas (i) Agriculture and Food Security (ii) Disaster Preparedness and Response (iii) Natural Resource Management (iv) Equitable Social Development (v) Energy, Industrial and Infrastructural Development.

- Riparian Buffer Zone Policy

The Buffer Zone Policy is intended to protect, regenerate and maintain the native/establish vegetation in riparian buffer zones to improve water quality by instituting appropriate procedures for managing and controlling the above activities along riverbanks and generally in catchment of surface water bodies.

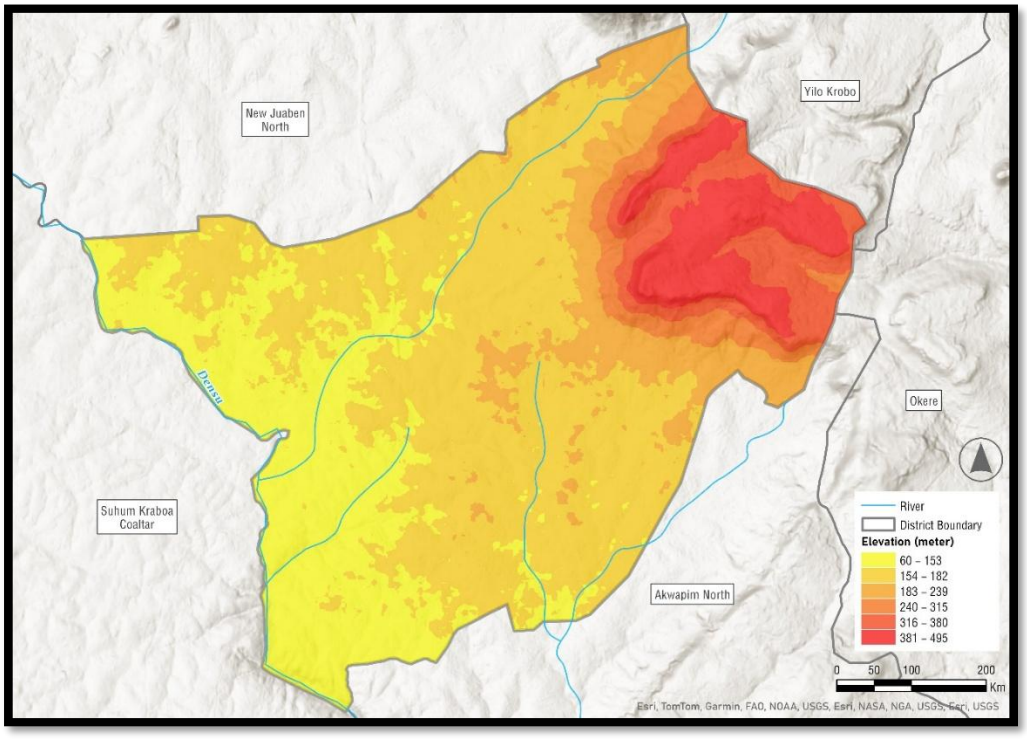
- National Medium Term Development Framework (2022-2025)

The framework identifies indicators that MMDAs are expected to report as an assessment or performance of the environmental sector in each district. For this context, the plan will limit to the following indicators. They include; (i) Protected areas, (ii) Mining extraction, (iii) Environmental Pollution, (iv) Deforestation, Desertification and Soil Erosion, (v) Land Administration, (vi) Water Resources, (vii) Climate Variability and Change.

### 4.3 Relief and Drainage

The types and measures of relief features found in the country are dependent on the nature and distribution of the different rock formations from which the land is built. The Eastern Region is characterized by mountains, hills, slopes, plains, rivers and streams. However, the Municipality is fairly flat it ranges from 60 metres to 495 metres above sea level.

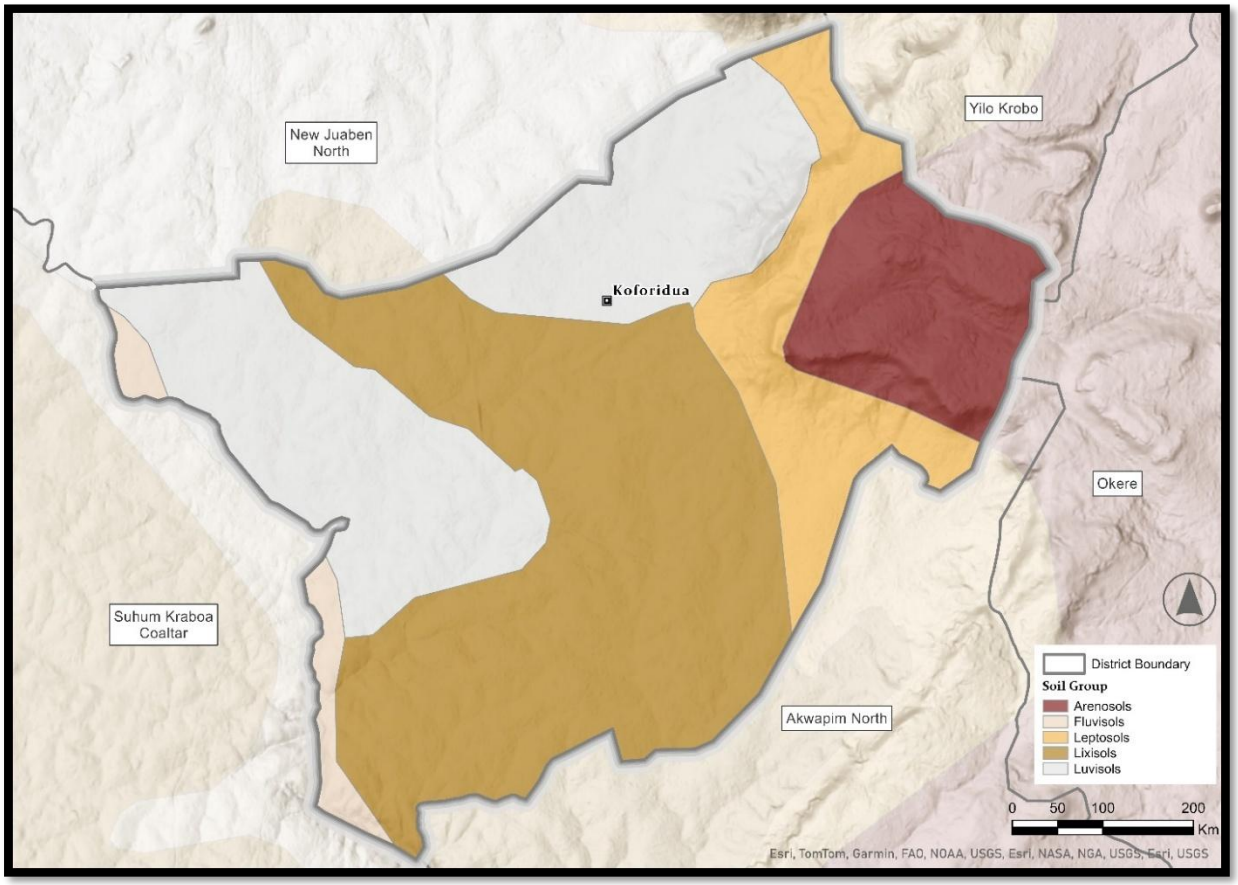
Also, the Municipality is drained mainly by the Densu River and its tributaries. The tributaries are mainly Bompom, Obopakko and Afena, Nsukwao and others. The Densu River is dammed at Densuagya where the water is treated and distributed to the Municipality. Figure 4.1 displays the relief and drainage within the Municipality.




Source: GLODA, 2025
Figure 4.1 Relief and Drainage Map

### 4.2 Soil

The types of soil in the municipality are Arenosols, Leptosols, Lixisols, Fluvisols and Luvisols. Leptosols are thin soils, typically less than 25cm deep with hard rock or very coarse fragments close to the surface. They are situated in the mountainous and eroded landscapes of the New Juaben South Municiplity. Arenosols are characterized by a loamy sand or coarser texture and lack diagnostic horizon. Lixisols are a type of soil characterized by a subsurface accumulation of low-activity clays and high base saturation, developed under intense tropical weathering conditions. Fluvisols on the other hand are characterized by recent sediment deposition and often show stratification or irregular organic matter profiles. Luvisols are a type of soil characterized by an accumulation of clay in a subsurface horizon. Figure 4.2 depicts the locations of the various soil types in New Juaben South Municipality.




Source: GLODA, 2025

Figure 4.2 Soil Types in the Municipality

### 4.3. Land Cover Status and Change

The trends in land cover status and change for New Juaben South Municipality is presented in nine types: forest, settlement, grassland, bare surface, water, food crop, mono cocoa, shaded

cocoa and other tree crop. An analysis of the trend is presented over six (6) years, that is 2015 and 2021. Table 4.1 shows the distribution of land cover in both 2015 and 2021. Figure 4.3 displays the status of land cover within the three and half decades.

| | 2015 | | 2021 | |
|---|---|---|---|---|
| | Count | Percentage | Count | Percentage |
| **Forest** | 26561 | 5.0 | 25,280 | 4.7 |
| **Settlement** | 199974 | 37.3 | 236590 | 44.2 |
| **Grassland** | 85232 | 15.9 | 50,415 | 9.4 |
| **Bare Surface** | 10 | 0 | 1,060 | 0.2 |
| **Food crop** | 191146 | 35.7 | 186586 | 34.8 |
| **Mono Cocoa** | 9612 | 1.8 | 10862 | 2.0 |
| **Shaded Cocoa** | 17561 | 3.3 | 17558 | 3.3 |
| **Water** | 38 | 0 | 118 | 0 |
| **Other Tree Crop** | 5392 | 1.0 | 7,057 | 1.3 |

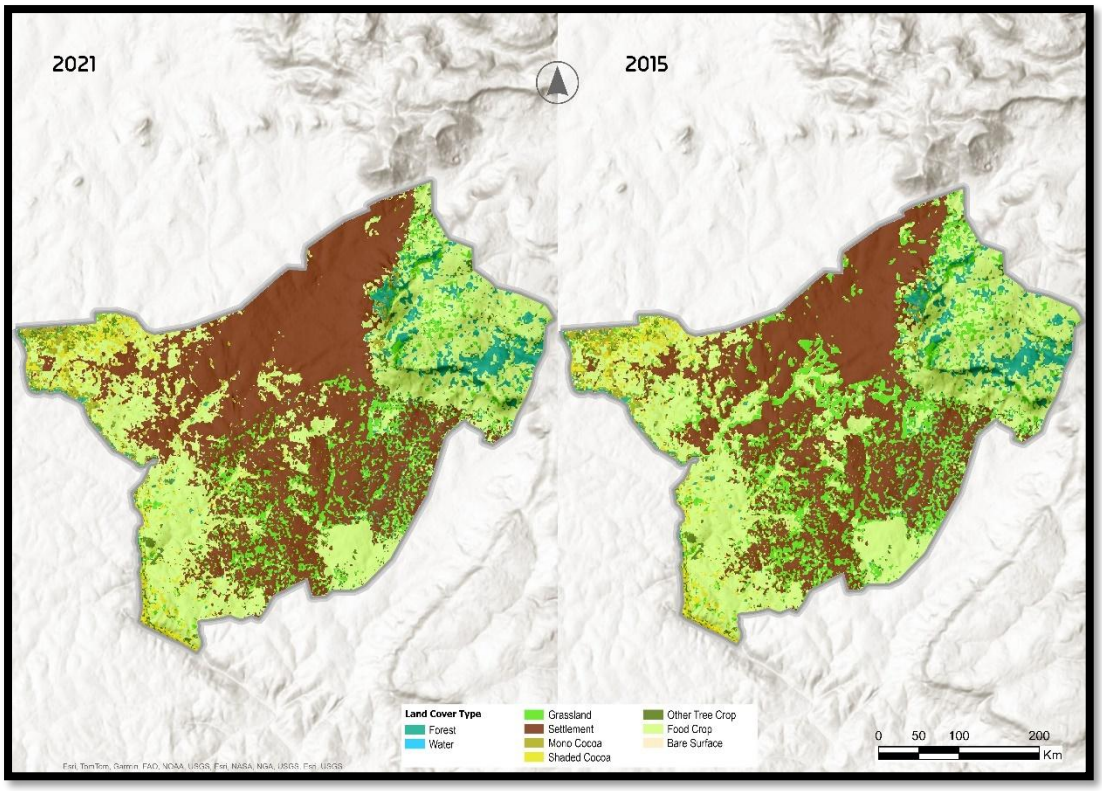
Source: GLODA, 2025

Table 4.1 Distribution of Land cover (2015 and 2021)

From the analysis, it is evident that the dominant land cover is settlement. Over the last six (6) years, most of the grassland land cover have apparently reduced from 15.9 percent to 9.4 percent. It is also noted that the food crop is lost from 35.7 percent to 34.8 percent. This can be attributed to expansion of the settlement. In the last six years, there has been significant increase in the coverage of settlements from 37.3 percent to 44.2 percent. Slight increases were observed in mono crop, other tree crop and bare surface. The increase in the mono cocoa can be attributed to improved production practices.

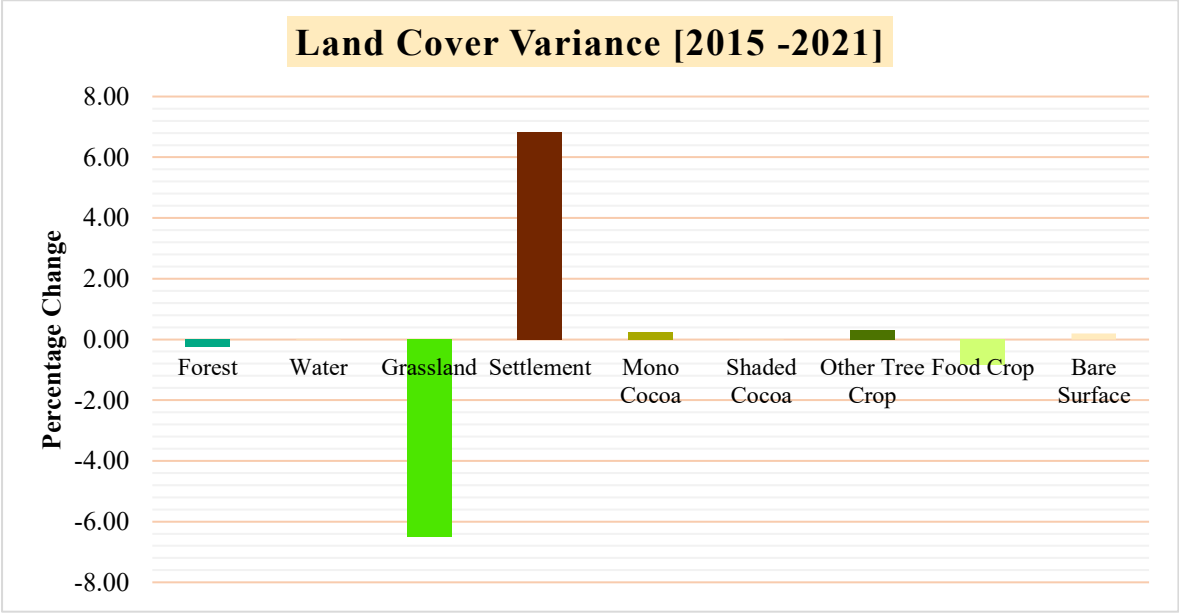
### 4.3.1 Land Cover Change

The change in land cover is considered over the last six years. The trend identifies gains and losses. Figure 4.2 shows the percentage of loss and gains on land cover by type between 2015 and 2021 and reveals positive and negative trends.




Source: GLODA, 2025

Figure 4.3 Land Cover Trends from 2015-2021




Source: GLODA, 2025

Figure 4.4: Land Cover Variance (2015-2021)

From the figure 4.2 the gains in the land cover variance between 2015 and 2021 involve settlement, mono cocoa, bare surface and other tree crop and this can be attributed as a positive

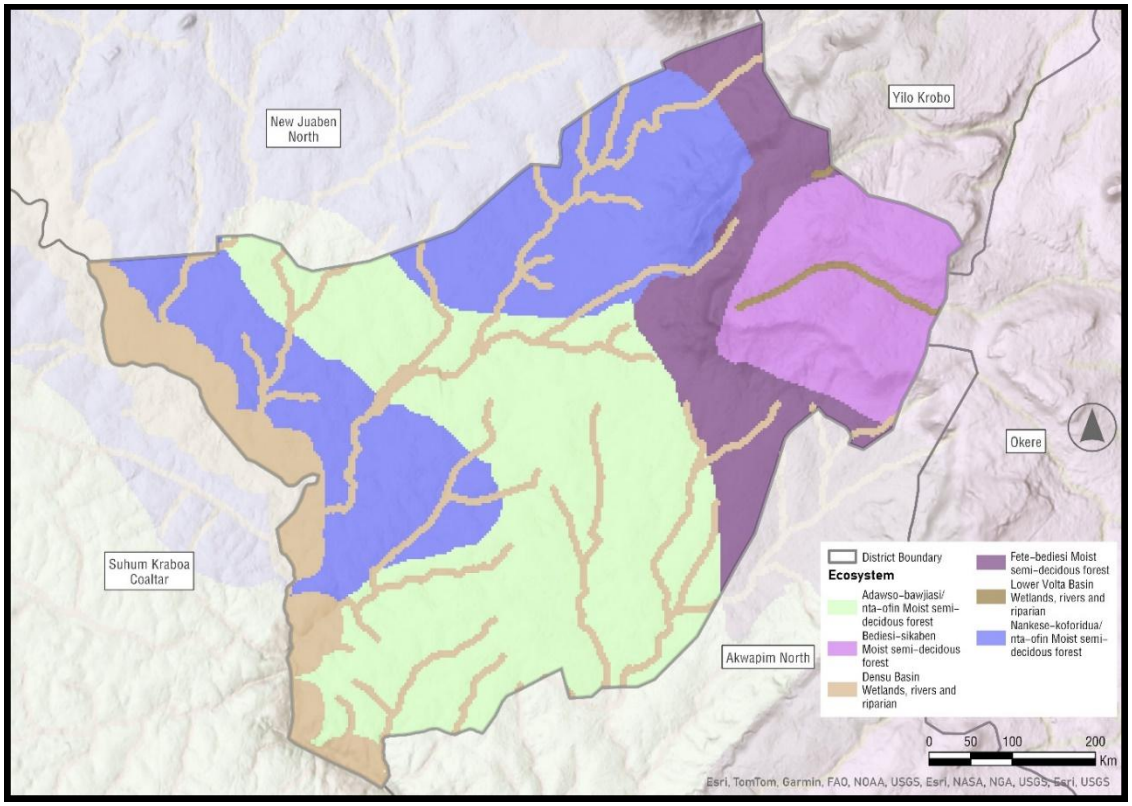
trend. On the other hand, the losses for forest, grassland and food crop are attributed as a negative trend.

### 4.4 Biodiversity

Biodiversity is defined by the Convention of biological diversity as "the variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystem." For this context, spatial analysis will be based on the ecosystem types, ecological condition and the protected areas within NJSM.

#### 4.4.1 Ecosystem Types

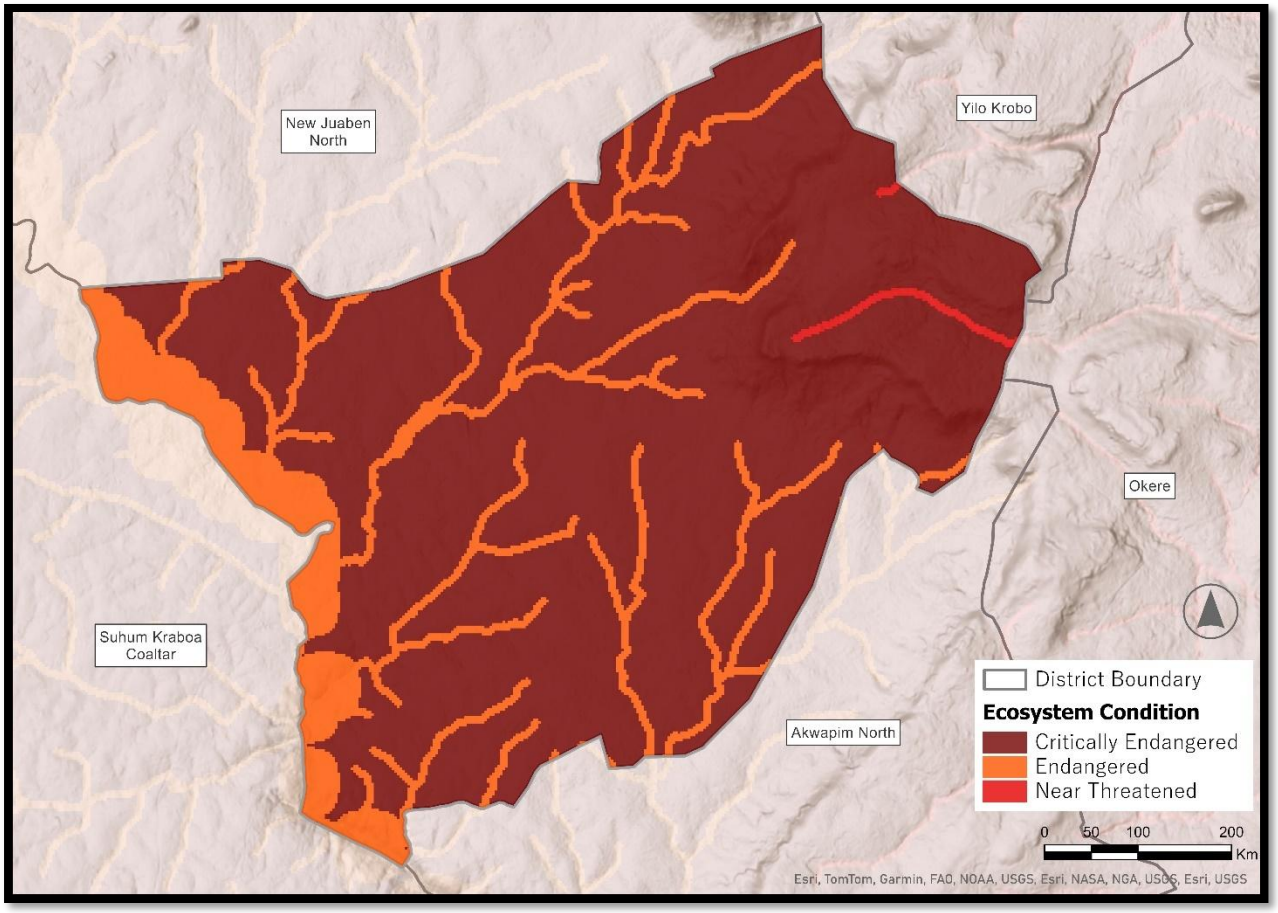
The Municipality is divided into six (6) ecosystem types. However, it can be summarized into moist semi-deciduous forest, wetlands, riparian and rivers. Figure 4.2 provides details on the location of the ecosystem types within the Municipality.




*Source: GLODA, 2025*

*Figure 4.5 Ecosystem Types*

### 4.4.2 Ecological Condition




*Source: GLODA, 2015*

*Figure 4.6 Ecological Conditions*

### 4.5 Climate Change and Resilience

The Municipality lies within the Semi-deciduous Forest Zone, with a bi-modal rainy season of between 1200mm and 1700mm reaching its maximum during the two peak periods of May/June and September/October. The dry season is relatively short and is experienced between November and February. Humidity and temperatures are generally high ranging between 20°C and 32°C. The mild temperatures have a significant bearing in making the Municipality a major tourist destination.

Primary changes in the climate are forecasted to result in secondary biophysical impacts on water availability, rain water runoff, flooding and land loss and degradation. The analysis conducted in the National Spatial Development Framework (NSDF) points to fact that the

NJSM is likely to experience moderate to severe erosion hazards. Possible impacts on some sectors of the economy of the Municipality include:

Agriculture and Food Security

The agriculture sector is vulnerable to climate change as it is one of the major economic activities in NJSM with a contribution of about 3.18 percent (2021 PHC). A large number of agricultural activities are small-scale farmers. Food and cash crops will be impacted by temperature rise, decreased rainfall, and rain cycle variability and change as well as land loss from erosion, and degradation. Thus, food security cannot be achieved without addressing the menace of climate change. The Municipality is noted for crop production in cassava, maize, plantain, cocoyam, and vegetables. It is anticipated that climate extremes like flooding could cause a reduction in crop production. Hence, it is important to recognize rural food accessibility, due to the implications of climate variability and subsistence agriculture which is the main food security and livelihood strategy for many households.

• Urban Development and Climate Change

Urban areas are highly vulnerable to the impacts of climate change. Urban settlements require a climate change focus in respect of adaptation and mitigation. Urban settlements are more likely to experience flooding because of their large non-porous paved areas and road surfaces, altered and narrowed natural drainage systems or underdeveloped, insufficient or clogged man-made drainage systems. The altered landscape can create conditions (poorly drained areas) for water- and vector-borne diseases which ultimately can spread faster amongst the higher density population. Urban areas with poor sanitation and solid waste treatment could coalesce to affect the local quality of life and economic activity. Acute climate impacts cause a sudden shock to the system, often from extreme event such as floods and landslides. Regardless, they each have the potential to cause cascading impacts across other infrastructure sectors and services. Paved roads may be damaged and deteriorate faster under extreme climate events, which unpaved roads are more vulnerable to, may be rendered impassable, damage to both types require high repair cost and leads to delays and lost trips. Destruction of a key section of road, for instance, might cut off communities from essential services and divert resources from other outcomes such as education, restricting growth and development. Depending on the capacity of a Municipality to recover from the shock, an acute event may impact affected areas for years or decades to come.

- Natural Resources Management

It is noted that climate change impacts forests, wetlands, coastlines, soil and land resources. Forest will be degraded and lost by rainfall decreases and drought, higher temperatures, increased bushfires, biodiversity loss, and indirectly by the need to increase crop land. Wetlands will be lost through sea level rise. Soil erosion now affects almost 70 percent of the total land surface. Therefore, it is imperative that NJSM designs and implement strategic programmes to protect natural resources, and also initiate measures to protect water bodies and or restore degraded ones, conserve wetlands and promote economic activities (e.g., aquaculture) that could be obtained from such resources in a sustainable way.

• Social Development

Health will also be impacted by an increase incidence of diseases and reduced access to water and food, disruption in health services delivery and the loss of transport infrastructure. In event of climate shocks, the poor will suffer through loss of assets and livelihoods. Women are particularly vulnerable to the negative impacts of climate change, given their relatively higher levels of poverty and their responsibilities for household water, food and fuel. It is anticipated that Assembly would assist in addressing climate change by carrying out the following actions;

- Develop the capacity of community health workers and set up emergency health response teams to handle health issues linked to Climate Change.
- Draw up effective solid waste management plans, education programmes and promote sanitation.
- Plan for the provision and maintenance of low-cost sustainable community water supply systems for domestic, agricultural and industrial purposes.
- Ensure equitable or fair representation of vulnerable groups or relevant stakeholders in planning and decision making on Climate Change related policies.

### 4.5.1 Responding to Climate Change

The NSDF acknowledged three ways in responding to climate change in Ghana. They are mitigation, adaptation and development-as-usual. A number of cross-cutting proposals enumerated in the NSDF as a response to climate change include the following;

- Mapping and analysis of the present yield and coverage of the major food crop types, identifying areas for agriculture intensification, crop diversification, and collaboration between high and low performing districts in specific crop types;
- Mapping and analysis of the status and trends of the major land cover types, identifying option areas for increasing crop area into grassland cover, particularly in urban food sheds;
- Mapping, analysis and proposed urban food sheds to increase food security through local food production. The food sheds will protect and potentially increase the farm area in proximity to urban centres;
- Propose an agriculture growth corridor
- Identify and map the districts and urban centers by type of cooking fuel with the highest use of charcoal for priority action;
- Identify the districts and areas where forests are most degraded, most rapidly degrading, and their proximity to urban and rural population centres;
- Identify potential sites for new power plants closer to population centres and for energy-intensive industry to locate close to power plants.
- Promote green infrastructure at all scales to protect forest reserves, deliver ecological services and quality of life benefits.
- Identifying and mapping international cross-border watershed-wide policies and strategies to adapt to climate change impacts within Ghana and between Ghana and neighbours and ensure that climate change policies and programs on both sides of the border are well-aligned. It is noted that the government has already increased investment in reforestation, afforestation, plantation programmes and sustainable forest management interventions. Some of these interventions include the Sustainable Landscape Management Project (2010- 2021), Green Ghana Project, Ghana Landscape Restoration and Small-Scale Mining Project.

### 4.6 Summary of Findings

- The Municipality is fairly flat it ranges from 60 metres to 495 metres above sea level and it is drained by the Densu River
- The dominant land cover as at 2021 is settlement at 44 percent.
- In comparing 2015 and 2021, it is observed that the Municipality lost some forest cover, grassland and food crop cover.

# MAN MADE ENVIRONMENT

## 5.1 Introduction

The provision of infrastructure promotes economic growth, liveability of human settlements and aids in alleviating poverty. Infrastructure encompasses several types of services including water infrastructure and services, sewerage and sanitation infrastructure and services, storm water infrastructure, solid waste infrastructure and services, communication infrastructure and services, energy infrastructure and services and road infrastructure and transportation.

The section will discuss existing conditions, issues and opportunities pertaining to the identified services.

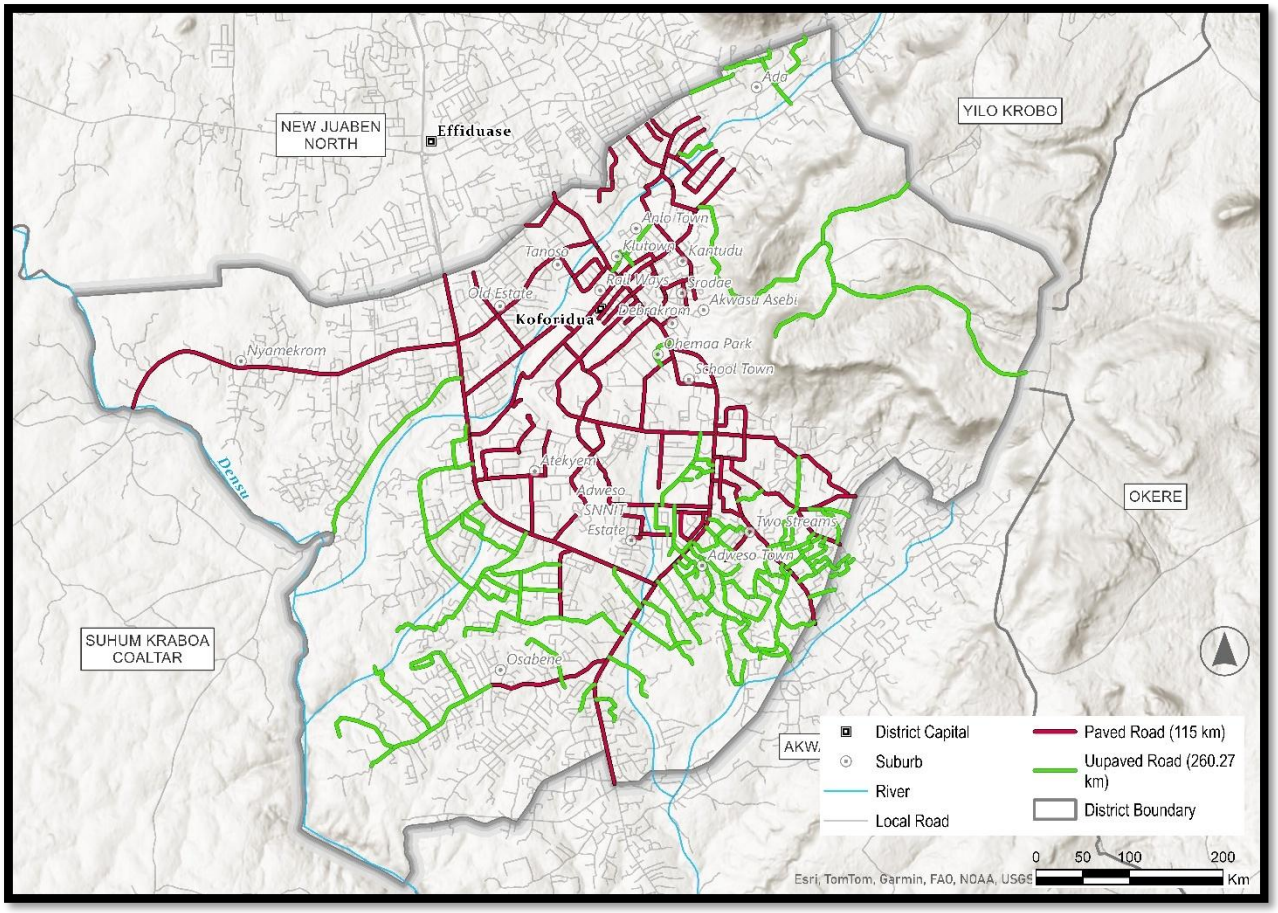
## 5.2 Road Infrastructure and Transportation

Transportation modes are an essential component of transport systems since they are the means by which mobility is supported. The Spatial Development Framework considers all categories of transportation network, government and private, and policies towards transportations systems that affect the Municipality's development.

The main mode of transport in the NJSM is road, however there are existing railway lines which are yet to be developed and made operational. The National Roads, N3 and N4 traverses through the municipality. The municipality has a total feeder network of about 596 kilometres and the urban road network is made up of approximately 372.40 kilometres. The distance covered by paved roads is about 115 kilometres, and 260.27 kilometres are unpaved. Figure 5.1 shows the road network in the Municipality. Unfortunately, the 73 percent of roads in the Municipality are poor in nature and this has been a major concern to residents and the Assembly.

The Transport sector is huge and concentrated within the Central Business District (CBD). The means of transport are; Taxis, Trotro, Motor Tricycles (Pragya) and Okada. This has resulted in vehicular and pedestrian congestion at the CBD. There are fourteen (14) transport terminals that exists within the CBD. They include Metro Mass Station, Kumasi Station, Ho Station, Accra Station and Taxi Rank. These stations are being operated under various transport unions such as GPRTU, PROTOA, Vision, Bayana, Cooperatives and Fair Play. The services of these transport systems which are private and commercial, are usually at its peak on market days (Mondays and Thursdays) and weekends (Saturdays and Sundays).

Also, the Central Business District and the principal streets are characterized with hawkers. The development of temporal structures along streets on any available space is a common phenomenon in the municipality. This has affected the aesthetics of the capital.




*Source: GLODA, 2025*

*Figure: 5.2 Conditions of Road Network in the Municipality*

### 5.3 Water Infrastructure and Services

Provision of water infrastructure and services is a very critical basic human need for survival in the NJSM. The municipality has varied water sources and systems including piped systems, boreholes and hand dug wells.

The River Densu is the main source that supplies water for treatment and delivery to the municipality and satellite communities. Currently, two (2) piped water systems supply potable water to the municipal capital and its environs. The Aqua Vitens Rand Limited (AVRL) system sources its water from Densuano and treated for distribution to majority of communities in the municipality. The small-town water supply system serves about five (5) communities. The

municipality has a total of fifty-one (51) boreholes, eight (8) hand-dug wells and two (2) springs located at Okume. The average water supply coverage is 49 percent.

Water delivery for domestic and industrial purposes is supplemented by rain harvesting, rivers, streams and dug-outs. Most of these sources are unsafe and expose the people to water-related diseases such as diarrhoea, typhoid fever, guinea worm and schistosomiasis. The Ghana Water Company Limited (GWCL) supplies potable water to a number of urban areas in the Municipality and it's fairly good. The major problem confronting the Ghana Water Company is the distribution of water in the communities and constant breakdown of the pipes. The water supply coverage in the municipality is 71.02 percent of the total population. This gives an unserved population 28.98 percent.

Challenges in water supply in NJSM is associated to irregular and inadequate flow of water. This as a result of high population growth rate and a seemingly lack of capacity on the part of the responsible agency, the Ghana Water Company, to keep pace with the rate of demand. Even though the municipality has varied water sources and systems including piped systems, boreholes and hand dug wells, flow of water has also been hugely irregular, inadequate and unreliable.

The Densu River have also been polluted by the activities including unapproved domestic activities which has affected agriculture drastically. It is therefore critical that the Assembly put in place measures to increase the pipe borne water coverage in the municipality and ensure the enforcement of bye-laws on water pollution.

### 5.4 Sewerage and Sanitation Infrastructure and Services

Sanitation is one of the most important aspects of community well-being because it protects human health, extends life spans, and is documented to provide benefits to the economy. Sanitation (solid waste, liquid waste and storm-water) is currently deployed as a way to contain and/or treat human excreta (and in some cases grey water) to protect human health and the environment including water bodies that are sources for drinking water. Therefore, the 2015 United Nation's (UN) Sustainable Development Goal (SDG) 6 for 2030 aims to achieve equitable access to safely managed water and adequate sanitation for all and end open defecation. The provision of sewerage and sanitation infrastructure is the responsibility of the

New Juaben South Municipal Assembly in line with the Government of Ghana's sanitation policies.

### 5.4.1 Solid Wate Disposal

Solid waste disposal is done by door-to-door waste collection, use of communal containers, waste receptacles and dugout pits. There are twenty-four (24) communal containers placed at vantage locations in the Municipality and finally lifted by Zoom Lion Company Ltd. Most households have waste receptacles and dugout pits on their premises where they either bury, burn or convey to a communal container. Others have subscribed to the door-to-door waste collection services provided by Zoom Lion Company Limited. Three (3) Zonal Councils namely Nsukwao, Zongo and Ada have unapproved dumping sites which are managed by the communities and three (3) approved dump sites.

Zoom Lion Company Limited under the Sanitation Improvement Package oversees cleaning of the container sites and streets whiles NAMCOP gang doing the clearing of weeds in open places and desilting of drains. The Municipality has no final waste disposal site; the Assembly shares the final disposal site with New Juaben North Municipal Assembly located at Akwadum. Clean-up exercises are conducted after every forty (40) days which is known in Akan calendar as Akwasidae. This falls on the Saturday preceding the Akwasidae which is a Sunday used for communal clean-up in the electoral areas.

### 5.4.2 Liquid Waste Disposal

An estimate of about 86 percent of households has latrines in their homes. There are 19,165 household latrines in the Municipality with 11,973 households using W/C and 7,188 VIP and 4 KVIP. There are seven (7) public W/C latrines in the Zonal Councils with Srodae having three (3) and Ada two (2). Also, there are a total of thirty-one (31) public latrines with twenty-two (22) being septic tanks, seven (7) W/Cs and one (1) KVIP and an enviro loo each. All the 31 public latrines are functioning and have been franchised to private individuals. One common attitude of households which is a public health concern is the channeling of septic tanks into public drains.

### 5.4.3 Storm-Water Infrastructure

The natural infiltration of run-off is interrupted when roads are buildings and other structures are built. This results in increased rates of run-off and localized flooding, increased levels of impervious surface area and pollution to streams and rivers. Again, when heavy rainwater hits,

ground saturated by water creates excess moisture that runs across the surface and into storm sewers and road ditches. This water often carries debris, chemicals, bacteria, eroded soil, and other pollutants, and carries them into streams, rivers, lakes, or wetlands.

Decreased infiltration and increased runoff create the need for storm water management, which provides significant benefit to people (health, welfare, and safety) and the environment (health, function, and sustainability). In short, storm water is important because it can lead to pollution, erosion, flooding and many other environmental and health issues if not properly understood and maintained. The New Juaben South Municipality has an underdeveloped drainage network and, consequently, solid waste that remains uncollected often finds its way into open drains and natural water courses causing severe blockages, flooding and pollution. Storm water management is aggravated by the fact that the capacities of the constructed drains in the Municipality are limited by their size and that they are sometimes silted or choked with refuse.

### 5.5 Communication Infrastructure and Services

Communication infrastructure is best understood as the technology, products and network connections that allow for the transmission of communications over large distances. A modern communications infrastructure underpins the development of efficient solutions to real world problems and ensures that research and development is only limited by the ideas being explored, not by the resources available to realize them. Nationally, the Government of Ghana has primarily concentrated on promoting Information and Communication Technology (ICT) and its physical infrastructure development to facilitate the development of the private sector.

The New Juaben South Municipality is well serviced by fixed line telecommunications as well as mobile service providers just as the case in the Eastern Region. The consequence of use of mobile network for financial services, marketing and market information cannot be underestimated. Mobile money has greatly increased the access to these services by the majority of the population. The mobile phone market in the Municipality is one of the well-developed telecommunication services in the country.

Most of the residents in the Municipality own a mobile phone and prefer mobile to fixed phone line or internet access. Currently, there are five (5) cellular network operators in the Eastern Region and the NJSM namely: Scancom Ghana Limited (MTN), Telecel Ghana Limited, Millicom Ghana Limited (Airtel/Tigo), and Globacom Ghana Limited (Glo). Analysis of

existing situation revealed that at the Municipal level, 68.6 percent of the population 12 years and above have mobile phones which is higher than the regional level of 44.5 percent. Again, analysis of existing situation revealed that more of the population use the internet instead of owning the facilities. Therefore, the reason for the number of internet cafes in the Municipality. Fixed telephone lines still remain the primary source of communication despite the dominance of mobile phones in the Municipality especially at the workplaces and businesses as well as areas with poor mobile phone network access.

### 5.6 Energy Infrastructure and Services

Maintaining and expanding New Juaben South Municipal energy infrastructure will be critical to continued economic growth and development. From oil and gas pipelines to rail and roadways, infrastructure brings vital energy resources to homes and businesses. Getting public buy-in to expand that infrastructure will require that industry do a better job of educating the public about the importance of energy and how that energy is delivered to them.

Electricity, LPG, charcoal and fuel wood are the main sources of energy in the Municipality. LPG, charcoal and fuel wood are used for cooking and small scale industrial and commercial activities while electricity is used for lightning. There is a number of LPG supply point located at Koforidua. There is therefore the need to encourage the private investors to invest in the sector in the remaining communities.

Electricity supply is largely significant with a coverage of about 95% of the communities in the Municipality even though most of the rural communities are without electricity. A situation which needs to be addressed if the agenda for boosting agro-processing is to be materialized. It is equally worthy to note that majority of the newly developed sites in both urban and rural areas are without electricity supply. The assembly should thus make the procurement and supply of high and low tension poles a priority in the plan period. It is also important to seek the advice of the ECG before procuring the poles in order to avoid their rejection for reason of specifications.

### 5.7 Summary of Findings for Man-Made Environment

This section presents an outline of the findings of the Man-Made Environment and therefore provide a coherent basis for the formulation of the spatial development framework for the New Juaben South Municipal.

*Road Transport*

- About 115km (31 percent) of urban road network that is paved
- About 73.3 km of the urban roads are in poor condition
- The Municipality inhabits 14 transport terminals

*Water Transport and Infrastructure*

- Two (2) piped water systems, Aqua Vitens Rand Limited (AVRL) system and the small water system supply potable water to the municipal capital and its environs.
- The average water supply to Municipality is 49 percent.
- The water supply coverage in the Municipality is 71.02 percent of the total population. This gives an unserved population 28.98 percent.
- The Densu River have also been polluted by the activities including unapproved domestic activities which has affected agriculture drastically

*Solid Waste Disposal*

- There are twenty-four (24) communal containers placed at vantage locations in the Municipality
- Most households have waste receptacles and dugout pits on their premises where they either bury, burn or convey to a communal container
- Clean-up exercises are conducted after every forty (40) days which is known in Akan calendar as Akwesidae

*Liquid Waste Disposal*

- An estimate of about 86 percent of households has latrines in their homes
- There is a total of 31 public latrines

*Communication Infrastructure and Services*

- It was revealed that 68.6 percent of those who are 12 years and above have mobile phones which is higher than the regional level of 44.5 percent.

*Energy Infrastructure and Services*

- Electricity, LPG, charcoal and fuel wood are the main sources of energy in the municipality.

- LPG, charcoal and fuel wood are used for cooking and small scale industrial and commercial activities while electricity is used for lightning.
- Electricity supply in the municipality is largely significant with a coverage of about 95%

## SOCIAL DEVELOPMENT

### 6.1 Introduction

Social development is about improving the well-being of every individual in society so they can reach their full potential. The success of society is linked to the well-being of each and every citizen. Globalization, population growth and communities' investment in social infrastructure is akin to national economy. Planning for social development infrastructure such as schools, health and other basic services improves social welfare, and livelihoods. This chapter covers social development infrastructure such as education, health, housing and gender.

### 6.2 Health

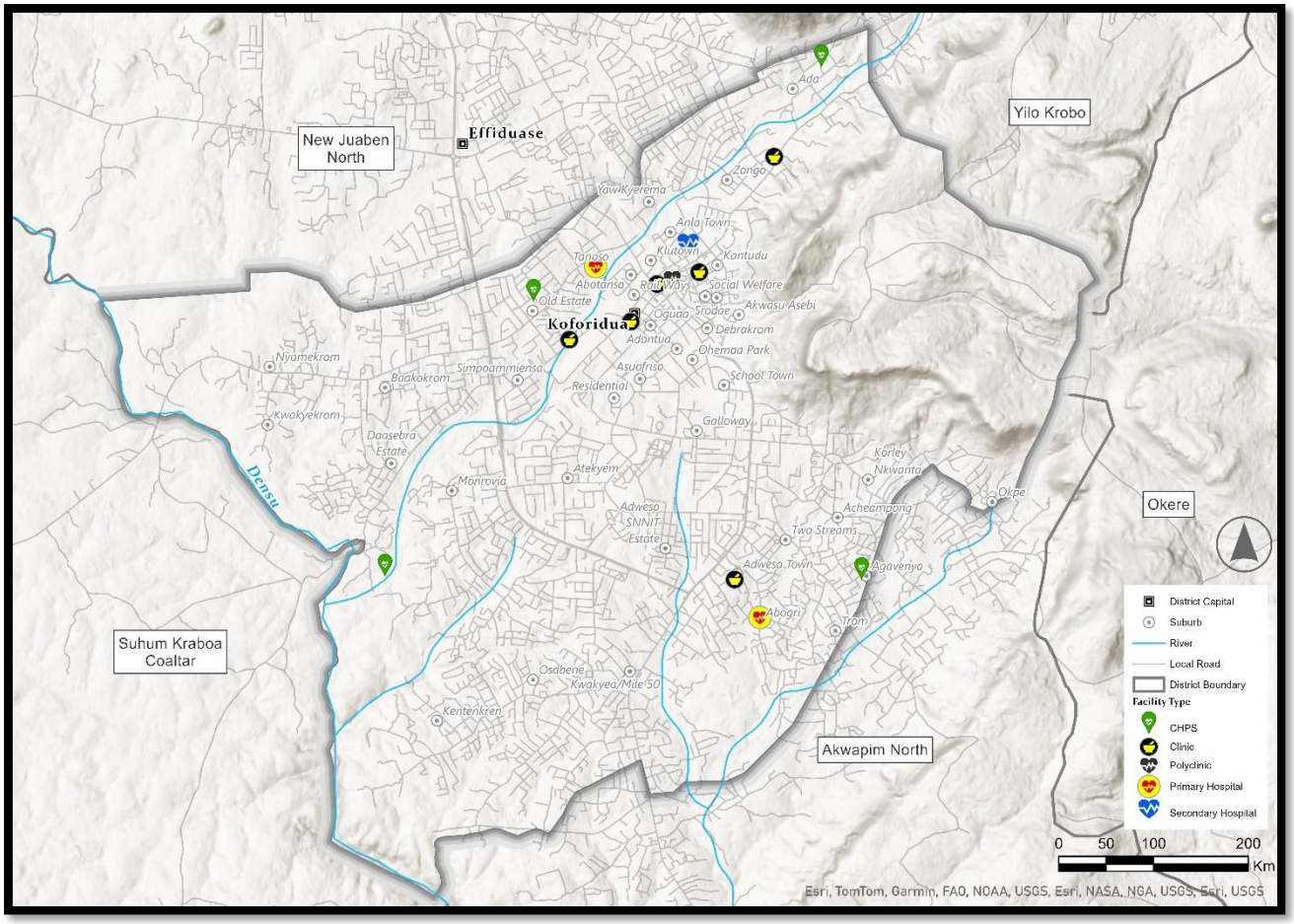
Health is usually understood as an individual right and a right pertaining to the entire community. For this reason, in many countries health installations are owned by the state and run by the government. Any adverse impact on the economy of a country will affect its ability to provide health services. Healthcare facilities in Ghana are managed by both private and public actors. Public health care is delivered through a three-tier system (primary, secondary, tertiary) and organized at five levels (community, sub-district, district, regional and national). The goal of the National Health Policy in Ghana is "To promote, restore and maintain good health for all people living in Ghana". It has the following as its objectives;

i. To strengthen the healthcare delivery system to be resilient
ii. To encourage the adoption of healthy lifestyles
iii. To improve the physical environment
iv. To improve the socio-economic status of the population
v. To ensure sustainable financing for health

Health care delivery in the New Juaben South Municipality has been anchored on the goal and objectives of the National Health Policy. The health care delivery over the years has been fairly good and satisfactory in the Municipality. Analysis of the existing situation in health services revealed that there are fifty-eight (58) health care facilities in the Municipality which include two (2) government hospitals, a private maternity home, thirty (30) CHPS compound, eight (8) private clinics, a polyclinic and three (3) health centres as can be seen in figure 6.1. The distribution of the existing situation of health facilities revealed the ownership of health facilities are public (36) and private (17), as seen in figure 2. The accessibility to health services

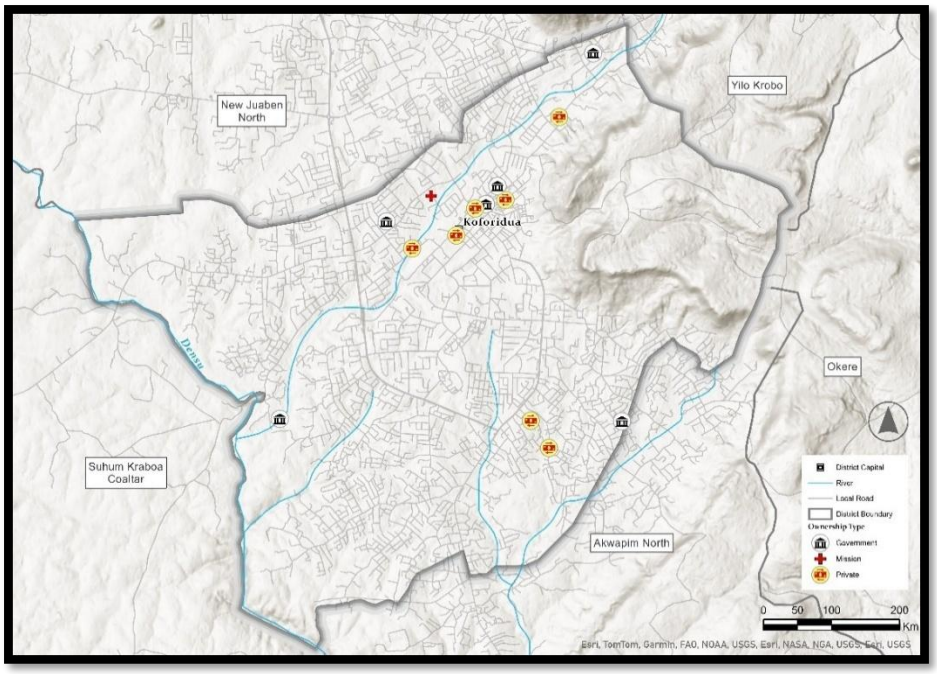
favours urban communities such as Koforidua as compared to the rural communities. The standard walking distance in accessing a health facility is 2500 meters to a kilometre, as can be seen in figure 6.3. communities,

Analysis of existing situation also revealed that Malaria is the predominant health issue that is mostly reported at Out-Patient Department (OPDs) and admissions at most of the health facilities in the Municipality.



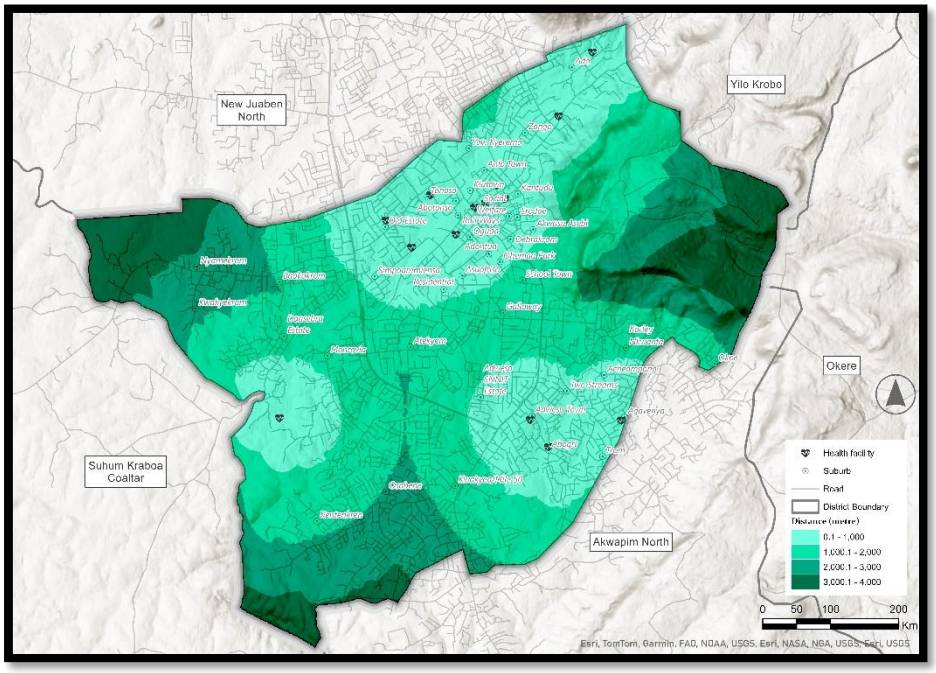

*Source: GLODA, 2025*

*Figure 6.1 Distribution of Health Facilities in the New Juaben South Municipal*




*Source: GLODA, 2025*

*Figure 6.2: Ownership of Health Facilities*




*Source: GLODA, 2025*

*Figure 6.3: Health Accessibility Map*

## 6.2 Education

Education is man's fundamental method of reform and progress. The quality of education infrastructure, specifically its appropriate educational planning and design with a focus on child

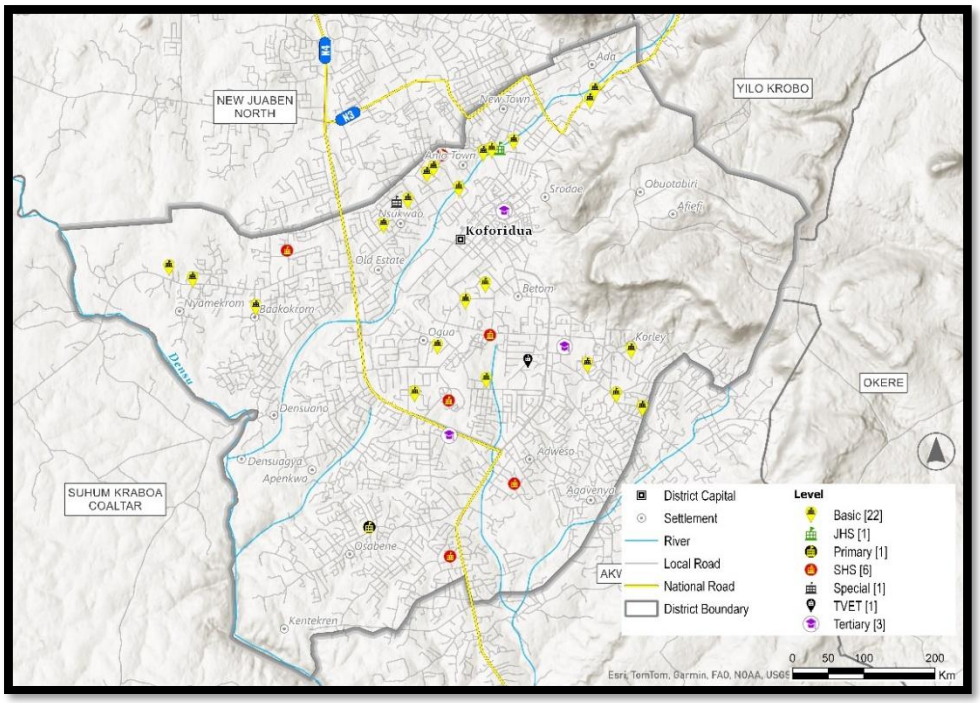
development, has been widely discussed in recent years. The Sustainable Development Goals, which are defined by the United Nations and scope the development agenda for all countries in the world, require countries to "build and upgrade education facilities that are child, disability and gender sensitive, and provide safe, non-violent, inclusive, and effective learning environments for all."

Ghana's education system is organized into seven programme areas and the Educational Strategic Plan reflects these in its presentation of sub-sectors. Basic education, which comprises kindergarten (KG) (two years), primary (six years), and junior high school (JHS) (three years), is free and compulsory for all children in Ghana. At the senior secondary level, students choose to follow the academic track of senior high school (SHS) or pursue more technical and vocational courses at a technical institute or specialized courses at a senior high technical school. From there, they progress to tertiary education in either academic or vocational tracks.

The New Juaben South Municipality can boast of 307 first cycle schools which are both publicly and privately owned comprising basic schools, senior high schools, special needs and vocational schools. There are 114 Kindergarten, 111 Primary, 82 Junior High School and 5 Senior High Schools, 2 Technical, Vocational Education and Training, 2 Special Needs School, 1 Nursing School and 2 Universities in the Municipality. All these are both in the government and the private sector as shown in Table 6.1. The educational facilities all fall within the acceptable walking distance of 2500 metres.

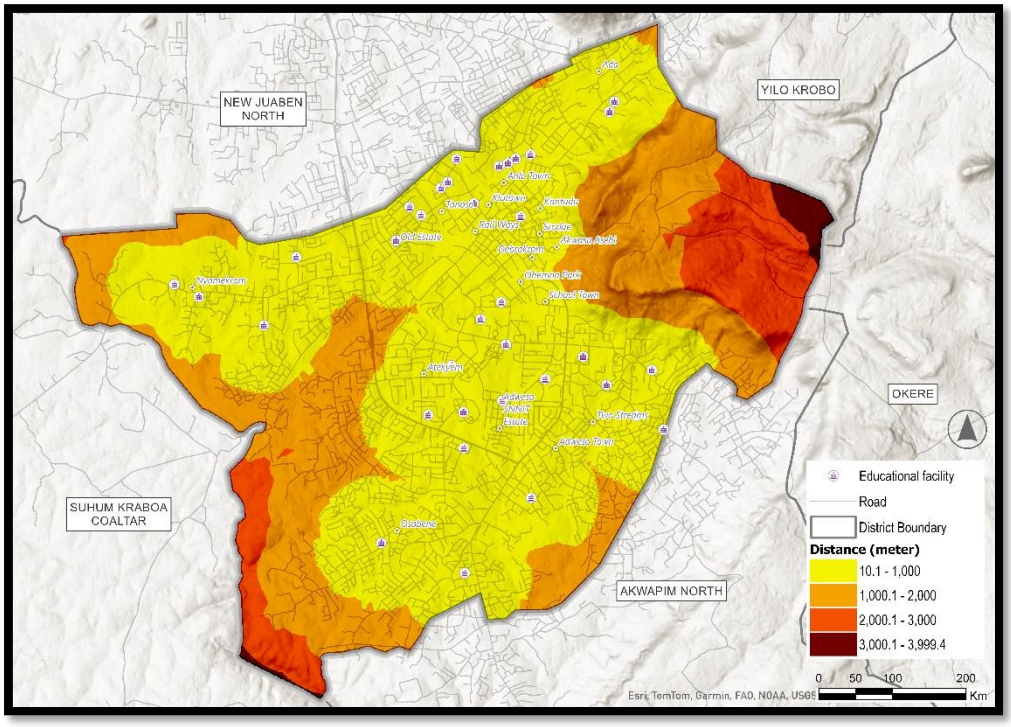
| Category | Public Schools | Private Schools | Total |
|---|---|---|---|
| KG | 45 | 69 | 114 |
| Primary | 50 | 61 | 111 |
| JHS | 49 | 33 | 82 |
| SHS | 4 | 1 | 5 |
| University | 1 | 1 | 2 |
| Teacher Training | 0 | 0 | 0 |
| Nursing Training | 1 | 0 | 1 |
| TVET | 1 | 1 | 2 |
| Special School | 1 | 0 | 1 |

Table 6.1 Ownership of Schools in the Municipality.




*Source: GLODA 2023*

*Figure 6.5: Distribution of Educational Facilities*




Source: GLODA 2023

Figure 6.6 *Educational Accessibility Map*

### 6.3 Housing

Housing plays a critical role in economic opportunity for individual workers and their families, affecting current and future workers, employers, communities, and regional markets. It is commonly accepted that the well-being of both individuals and families is substantially affected when the need for satisfactory housing is not met. Access to adequate housing has long been viewed as a basic human right and is considered to be an integral factor for the enjoyment of other economic, social and cultural rights. According to the United Nations (UN) Committee on Economic, Social and Cultural Rights, satisfactory housing consists of: legal security of tenure; availability of accessible services, facilities and infrastructure; habitability; accessibility (e.g. access to employment, health services, schools, etc.); cultural adequacy; and affordability. Given the relevance of housing to an individual's well-being, it is not surprising that for most people the world over, homeownership is of utmost importance.

The total housing stock in the New Juaben South Municipality represents 26.35 percent of the total households in the Eastern Region (456,663). Analysis of existing distribution of housing stock in the Municipality revealed that 9.8 percent of the total housing units are located in rural areas. The predominant type of dwelling or housing units in the Municipal are compound houses, separate houses, semi-detached houses, flat/apartment, hut/building, tent, improvised home (kiosk/container), living quarters etc. Analysis of existing situation revealed that a large percentage of households (67.1percent) live in room(s) within compound houses, while 11.3 percent live in separate houses, which is the least common type in the region. A smaller percentage of households live in flats, apartments, or dwelling units (7.4 percent), kiosks, or other improvised dwelling units (1.7 percent). Analysis of existing housing situation in the Municipality also revealed that when it comes to house ownership, the majority of housing is owned by household members. This indicates a strong tradition of family-based housing with a smaller percentage owned by private individuals or relatives who are not household members.

### 6.4 Gender and Development (Poverty, Inequality & Social Protection)

Gender is an important consideration in development. It is a way of looking at how social norms and power structures impact on the lives and opportunities available to different groups of men and women. Women comprise more than 50 percent of the population in all ten regions, largely because of their higher life-expectancy.

Women have an important role in the economy. For participation in economic activities in the NJS Municipality, though there is more female participation in economic activity in the Municipality, the proportion of males who are economically active (73.8 percent) is higher compared to females (70.1 percent). There are several barriers to the contribution of economic outputs of women in the Municipality and these include; marginalization and discrimination in terms of representation as leaders and problem solvers, inadequate access to farmlands, exclusion from formal sector and managerial positions and lack of childcare facilities in both formal and informal workplaces.

### 6.5 Main Findings- Social Development

This section presents a snapshot of the findings of social development sector and therefore provide a coherent basis for the formulation of the spatial development framework for the New Juaben South Municipality.

**Health**

- Inadequate Health Infrastructure
- Inadequate and inequitable distribution of critical staff mix
- High stigmatization and discrimination of HIV and AIDs
- High incidence of HIV and AIDS among young persons
- Inadequate coverage of reproductive health and family planning services
- Gaps in physical access to quality health care

**Education**

- Dilapidated and inadequate educational infrastructure
- Uneven distribution of schools;
- High enrolment in public basic schools;
- Overcrowding, as the number of classes exceeds the number of classrooms;
- Inadequate and poor-quality educational infrastructure; public schools lack ancillary facilities (i.e., kitchens for school feeding programmes, ablution facilities, etc.)
- Poor quality of education at all levels
- Inadequate classroom blocks
- Poor linkage between management processes and schools' operations
- Inadequate and inequitable distribution of critical staff mix

**Gender and Development**

- Low educational levels among women as compared to men in the Municipality
- Satisfactory contribution of women in economic activities in the Municipality is a good sign of improved gender parity in the economic development

## DEVELOPMENT CHALLENGES AND OPPORTUNITIES

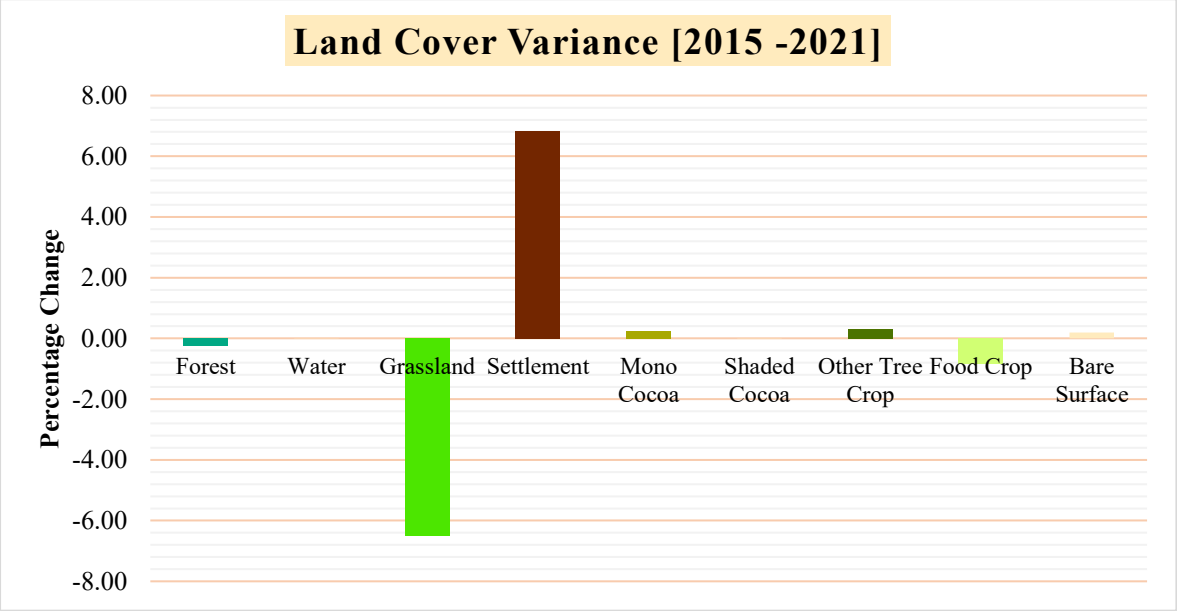
### 7.1 Introduction

The section provides a concise analysis of the natural environment, population dynamics and urbanization, man-made environment, economy and social development. It provides a concise panoply of development challenges and opportunities in New Juaben South Municipal area. Based on this, a vision, goals and strategies have been developed. The formulated vision and goals led to the development of different scenarios.

### 7.2 Natural Environment Challenges and Opportunities

#### 7.2. 1. Land Use Changes (2015-2021)

New Juaben South Municipal has undergone some major land cover changes from 2015 to 2021. The most prominent change in land cover is the Settlement cover at 44. 2 percent as at 2021. It was observed that land use trends experienced a negative trend for grassland, forest and food crops, whiles positive trends where experienced for settlements, mono cocoa, other tree crop and bare surface covers. Both land use changes are marginal as seen in Figure 7.1.




*Source: GLODA, 2025*

*Figure 7.1 Land Cover Variance (2015-2021)*

**Significant Enlargement in Settlement:** Settlements is the dominant land use component in the municipality and it is expanding quite rapidly. Settlement cover as at 2015 increased from 37.3 percent to 44.2 percent in 2021. This is an indication of urban development expansion and

perhaps a matter of concern. The gains for settlement cover could be caused by losses in grassland, food crops and forest cover.

**Slight Increase in Mono Cocoa and Other Tree Crops:** The mono cocoa land cover increased from 1.8 percent to 2.0 percent between 2015 to 2021. The gains in mono cocoa cover though have a positive trend of ensuring a higher yield, stable income and simplified management. However, this could lead to depletion of soil nutrients and reduced biodiversity. The rise in other tree crops cover from 1.0 percent to 1.3 percent also has a positive outlook for the Municipality as it improves soil and water conservation, store carbon, moderate local climate by providing shade, regulate temperature extremes and improve the land's capacity to adapt to climate change.

**Minor Reduction in Forest Cover:** Forest cover reduced from 5 percent to 4.7 percent as at 2021. The NSDF (2015) identified the Eastern region to have forest cover of over 50 percent. However, it was identified that there was a challenge of protecting the existing forests from degradation and exploitation. Loss of the forest cover is likely to be caused by changes to vegetation, built-up settlements and water.

**Significant Reduction in Grassland:** A significant reduction in the grassland was recorded from 15.9 percent to 9.4 percent between 2015 to 2021. The loss could be attributed to unsustainable agricultural practices, urbanization etc. This subsequently has led to decreased biodiversity, reduced carbon sequestration, and increased soil erosion in the municipality.

### 7.2.2 No strategy to address issues of Climate Change and Resilience

The analysis conducted in the NSDF points to the fact that NJSM is likely to experience moderate to severe erosion hazards. For instance, the considerable decrease in cropland cover will subsequently affect agriculture and food security while food accessibility also has implications of climate variability. In event of climate shocks, the poor will suffer through loss of assets and livelihoods. Women are particularly vulnerable to the negative impacts of climate change, given their relatively higher levels of poverty and their responsibilities for household water, food and fuel.

Unfortunately, the Municipal Assembly have not been able to develop response strategies to address the impacts of the climate variability and change even though the National Spatial Development Framework has enumerated a number of proposals.

## 7.3 Population Dynamics and Urbanization

### 7.3.1 Increasing Population Growth

The New Juaben South Municipality since 2010 has been growing steadily at a declining regional share. The 2021 Population and Housing Census, accounts a population of 125,256 accounting for 4.3 percent of Eastern region's total population of 2,925,653. NJSM's is ranked the populous municipality in the region. The population is projected to increase to 227,548 by 2045nand the region at 3,605,551. The in-migration to the municipality can be attributed to a number of factors including the tourism potential of the area, commercial activities and services within the municipality.

### 7.3.2 Nucleated Population Distribution Pattern

The population distribution of NJSM portrays that of a nucleated pattern with high population concentration especially in urban areas. The high population concentration is limited to Betom, Old Estate, Nsukwao, Srodae, Atekyem etc. These settlements are characterised by well laid-out with defined access roads and other facilities like drains, open spaces and well-designed housing unit. This type of settlement pattern creates a challenge in events of infectious disease which is likely to spread more easily.

### 7.3.3 Level of Urbanisation

The Eastern region's urbanisation levels follow an increment trajectory from 1960 to date. It attained 50 percent urban status in 2021 compared to 43.4 percent in 2010 and 21.1 percent in 1960. Currently, the level of urbanization in the NJSM (95 percent) is above the level of Eastern region at 51.5 percent. On the other hand, population in rural communities account for 5 percent. Due to the anticipated increase in population by 2045, it is anticipated that this will lead to an automatic increase in the level of urbanization.

## 7.4 Challenges and Opportunities in the Economy

### 7.4.1 High Economic Activity

The Municipality records an economic activity rate of 67.1 percent in the region. This implies higher living standards, high incidence of job creation and reduced unemployment, business investment and growth, enhanced government revenue and public services and in effect leading to poverty reduction. These opportunities in the economy culminates to access to goods and services, encourages business to expand and create new jobs ultimately reducing unemployment and poverty levels, and increased tax revenue for the government.

### 7.4.2 Untapped Tourism Sector

The tourism sector in the Municipality is underdeveloped and has huge potential of contributing to the economy. Currently, the Municipality can boast of Kentenkeren Waterfall, and Obuotabiri Bird View. An important potential for tourism attraction is the top of Obuotabiri Mountain. The homecoming of the diasporans is another potential that the Municipal Assembly can leverage on to boost tourism in the Municipal.

Among the challenges hindering the potential of the sector are the poor nature of connectivity to the tourist sites, unplanned tourist sites to attract tourists, poor marketing, and inadequate accommodation facilities to meet the demand of tourists. The municipality's attractive sites should be developed and promoted to attract tourists to the municipality and hence provide employment and generate revenue.

### 7.4.3 Potential to Expand the Agro-Industrial Sector

Expanding the agro-processing is vital for the economic development of food security, job creation and rural livelihoods. Agro- processing are the best ways of adding value to the food and cash crops produced in large quantities in the Municipality and to avoid bumper harvest with its attendant high post-harvest loses. Currently, the agro-processing activities in the Municipality are mostly small scale and comprise palm oil extraction and processing located at Nyamekrom, Ada magazine, Kwakyekrom (not operational) and Adweso (not operational), soap making situated at Ada magazine and gari-processing located at Atekyem, Kwasi Akoli, Monrovia, Adweso, Ada Magazine and Trom.

## 7.5 Challenges and Opportunities in the Man-Made Environment

### 7.5.1 Poor Road Conditions

The road transport is the dominant mode transport in the NJSM. The National Roads, N3 and N4 traverses through the municipality. The Municipality has a total feeder network of about 596 kilometres and the urban road network is made up of approximately 372.40 kilometres. The distance covered by paved roads is about 115 kilometres, and 260.27 kilometres are unpaved. It worth noting that 73 percent of roads in the Municipality are poor in nature and this has been a major concern to residents and the Assembly .

### 7.5.2 Structured Disposal Solid Waste

Solid waste disposal is done by door-to-door waste collection, use of communal containers, waste receptacles and dugout pits. There are twenty-four (24) communal containers placed at

vantage locations in the Municipality and finally lifted by Zoom Lion Company Ltd. Most households have waste receptacles and dugout pits in their premises where they either bury, burn or convey to a communal container. Others have subscribed to the door-to-door waste collection services provided by Zoom Lion Company Limited. Three (3) Zonal Councils namely Nsukwao, Zongo and Ada have unapproved dumping sites which are managed by the communities and three (3) approved dump sites. However, the Municipality has no final waste disposal site. the Assembly shares the final disposal site with New Juaben North Municipal Assembly located at Akwadum. Clean-up exercises are conducted after every forty (40) days which is known in Akan calendar as Akwasidae. This falls on the Saturday preceding the Akwasidae which is a Sunday used for communal clean-up in the electoral areas.

## 7.6 Challenges and Opportunities in Social Development

### 7.6.1 Inadequate and Inequitable Distribution of Critical Staff Mix

One challenge facing health service delivery in the municipality is the inadequacy of health professional mix. The ness of the Municipality in terms of availability of social amenities have resulted in most doctors and other health professionals refusing postings to some of the health facilities in the municipality.

### 7.6.2 Uneven Distribution of Schools

The uneven distribution of schools in the municipality is also affecting educational service delivery in terms of quality and physical access. The uneven distribution of schools is having a negative impact on access to educational facilities for the poor and also denying the vulnerable from enjoying quality education in the municipality.

# GOALS, STRATEGIES AND SCENARIO OPTIONS FOR NEW JUABEN SOUTH MUNICIPAL SPATIAL DEVELOPMENT

## 8.1 Introduction

The development challenges and opportunities identified buttress the need for an explicit development trajectory in order to achieve the required spatial growth and development of the municipality within the next 20 years. This section critically discusses the scenarios for the development of the New Juaben South Municipality considering its development trajectory, spatial structure and opportunities to guide its future growth and expansion. The development scenarios are based on critical economic, population trend and settlement expansion analysis among others to arrive at their final outcomes. The two scenarios comprise the Sustainable Agricultural Villages, Eco-Tourism and Natural Resource Protection and Business and Services Intensification, Industrial and Polycentricity Development Scenarios were proposed and discussed.

## 8.2 Vision

Based on the baseline analysis and consultation with the departments and relevant stakeholders, the vision for the SDF for the next twenty (20) years is, ***"to be a vibrant service, commercial and industrial hub that drives economic transformation while prioritizing sustainable social and environmental progress for a thriving future".***

## 8.3 Goals, Objectives and Strategies

The vision statement creates a picture of how the municipality could be envisaged in the future. The achievement of this vision will be directed by a set of strategic goals with desired outcomes for the municipality by the end of the plan period. These goals provide a focus for specific objectives and sector strategies outlined in this plan. Four key goals are identified and elaborated recommending the key objectives and strategies that needs to be implemented to realize the spatial vision for the municipality. These goals include:

1. Safeguard the natural environment to protect biodiversity
2. Promote diversified and sustainable local economic development.
3. Promote expanded infrastructural development and resilient built environment.
4. Promote a balanced distribution of social and economic opportunities.

### 8.3.1 Goal One: Safeguard the Natural Environment to protect biodiversity

This goal aims to protect the natural environmental assets such as forest reserves and ecologically sensitive areas from illegal exploitation. By this, objectives and strategies will be to address flooding, bushfires, water resource management, energy conservation and waste management as a way of sustainable environmental and resource management.

**Objectives**

- Protect and conserve all forest reserves by 2045.
- Conserve natural resources and promote them for passive recreation.
- To boost and develop the tourism potential of the municipality by 2045.
- Promote smart growth and conserve agricultural land from urban sprawl.
- Promote a clean and environmentally friendly network.

**Strategies**

- Enforcement of by-laws.
- Facilitate the setting up of community forest guards.
- Identify and develop new tourism sites.
- Ensure development control in forest and ecologically sensitive areas.
- Initiate the implementation of environmentally friendly policies in all sectors.

### 8.3.2 Goal Two: Promote Diversified and Sustainable Local Economic Development

This goal aims to consolidate the economy of the municipality by strengthening other sectors such as agricultural and industrial sectors to reduce the overreliance on business and services driven economy of the municipal. To actualize this goal, diversification is required into strong commercial, industrial, service and agricultural sectors.

**Objectives**

- Ensure improved skills development for local Industry by 2035.
- Improve market infrastructure annually.
- Protect agricultural lands from urban and rural invasion through the creation of land banks.
- Establish and resuscitate small scale and medium scale agro-based industries in the network.

- Diversify and expand the tourism industry for economic development.
- Construct warehouses and storage facilities in rural agrarian communities in the network.
- Designate agricultural lands to ensure food security.
- Create industrial enclave to boost the confidence of investors
- Create industrial sites for artisans.
- Expansion and restructuring commercial centres in the municipality.

**Strategies**

- Expand the tourism sector through investment, innovation, and pursuit of service excellence.
- Upgrade tourism infrastructure and services riding on existing facilities.
- Develop variety of tourism destinations.
- Promote and enforce local tourism and develop available and potential sites to meet international standards.
- Designate areas for agro-based industries.
- Source more donor funding to support agricultural activities.
- Develop mixed use zones to accommodate changing market demand.
- Expand and restructure commercial centres.

### 8.3.3 Goal Three: Promote Expanded Infrastructural Development and Resilient Built Environment

This goal aims to ensure the provision of balanced infrastructure to stimulate economic growth and development of the municipality. It seeks to improve the existing infrastructure and initiate the provision of new infrastructure to ensure a well-connected built environment in the municipality.

**Objectives**

- Efficient and equitable distribution of urban infrastructure, facilities and services.
- Improve efficiency and effectiveness of road transport infrastructure by 10% annually.
- Promote a sustainable, spatially integrated, balanced and orderly development of human settlements.
- Promote the preparation of local plans for all local areas which will ensure controlled development.

- Create open spaces assigned for specific future uses.
- Ensure quality living environment for residents in the municipality.
- Enhance inclusive and equitable access to, and participation in quality education at all levels.
- Ensure affordability, equitable, easily accessible and Universal Health Coverage.

**Strategies**

- Expand and maintain the internal road network.
- Expand educational and health infrastructure at all levels.
- Ensure inclusive education for all boys and girls with special needs.
- Continue implementation of free SHS and TVET for all Ghanaian children.
- Expand and equip health facilities.
- Accelerate implementation of Community-based Health Planning and Services (CHPS) policy to ensure equity in access to quality healthcare.
- Promote use of ICT and e-health strategies in healthcare delivery.
- Prepare structure plan for selected urban areas in the municipality.
- Fully implement Land Use and Spatial Planning Act, 2016 (Act 925).

### 8.3.4 Goal Four: Promote A Balanced Distribution of Social and Economic Opportunities

This goal aim to promote a balanced distribution of social and economic opportunities for all residents of the municipality through quality education, health, and other social services. Poor access to education, health and other social services adversely affects the economy and the well-being of citizens immensely. To overcome these challenges, a number of objectives and strategies have been developed to ensure that there is equal opportunity for all in accessing these social and economic services.

**Objectives**

- To Improve Quality and Access to Health and Education Service Delivery.
- To ensure even distribution of social amenities (potable water, schools, health facilities, markets, etc) throughout the municipality by 2035.
- To ensure the preparation of spatial plans to guide the distribution of social and economic services and opportunities.

- To ensure the application of Spatial Analysis in the Siting of basic facilities and services.

**Strategies**

- Mobilize resources to ensure increase access to social amenities.
- Create more market sheds.
- Provide more hospitals and health centres.
- Facilitate the construction of more classroom blocks.
- Facilitate the posting of more health personnel to the municipality.
- Construct more bore holes in rural communities.

## 8.4 Scenarios Options for Development

The development challenges and opportunities identified reinforce the need for an explicit development trajectory in order to achieve the required spatial growth and development of the municipality within the next 20 years. This section critically discusses the scenarios for the development of New Juaben South Municipality considering its development trajectory, spatial structure and opportunities to guide its future growth and expansion. The development scenarios are based on critical economic, population trend and settlement expansion analysis among others to arrive at their final outcomes. The two scenarios which comprise the Sustainable Agricultural Villages, Eco-Tourism and Natural Resource Protection and Business and Services Intensification, Industrial and Polycentricity Development Scenarios have been proposed and discussed.

### 8.4.1 Scenario One: Sustainable Agricultural Villages, Eco-Tourism and Natural Resource Protection

This scenario aims to strengthen agriculture as one of the critical sectors of the municipal economy by promoting climate smart agriculture, developing the untapped tourism potentials and protection of the natural resource endowments of the municipal. Climate smart agriculture in the villages of the municipal will bolster efforts to produce more and higher quality food without putting an additional strain on natural resources, improve nutrition security and also boost incomes of farmers.

Climate smart agriculture is vital to all the other sectors of the economy. The right investments in agriculture in the municipal will contribute to increased food production across the Eastern Region and Ghana as a whole. It will also help reduce greenhouse gas emissions of the food

system, avoid deforestation due to cropland expansion, and increase the carbon sequestration of plants and soils in the municipal. The focus on agricultural development will move away from the traditional methods of farming where yields and production have been consistently low and output meant for only local markets. The agricultural production chain will be dominated by modern and scientific methods of farming as a means of increasing annual production yields and income. The climate smart agriculture in the municipal will be anchored the following pillars;

- **Productivity:** The climate smart agriculture to be adopted through the concept of sustainable intensification is aimed at sustainably increasing agricultural productivity and incomes from crops, livestock and fish, without having a negative impact on the environment. This, in turn, will raise food and nutritional security.
- **Adaptation:** The climate smart agriculture in the municipal aims to reduce the exposure of farmers to short-term risks, while also strengthening their resilience by building their capacity to adapt and prosper in the face of shocks and longer-term stresses. Particular attention is given to protecting the ecosystem services which ecosystems provide to farmers and others. These services are essential for maintaining productivity and our ability to adapt to climate changes.
- **Mitigation:** Wherever and whenever possible, the climate smart agriculture will help to reduce and/or remove greenhouse gas (GHG) emissions. This will manifest in avoiding deforestation from agriculture. And this connotes the management of soils and trees in ways that maximizes their potential to acts as carbon sinks and absorb CO2 from the atmosphere.

The objectives of the sustainable agriculture, eco-tourism and sustainable natural resource protection scenario are as follows;

1. To promote sustainable agriculture and eco-tourism as major drivers of the municipal economy and sustainable spatial development.
2. To foster strategies aimed at promoting climate smart agriculture and eco-tourism to drive employment for the youth in the municipal.
3. To reduce incidence of poverty through job creation and wealth creation in the local economy.
4. To promote the sustainable exploitation of the natural resource base of the municipal and the preservation of ecologically sensitive areas.

**Features/Proposed Interventions of Scenario One**

- Creation of sustainable agricultural villages to focus on intensive agriculture.
- Expansion of agricultural land for intensive agriculture.
- Increase intensive agric mechanization in the agricultural villages.
- Creation of irrigation zones to support agricultural production.
- Creation of primary nodes as intensive commercial centres for major commerce, administrative services, financial services, agri-business, trade and general business.
- Creation of secondary nodes as minor commercial centres for minor commerce, services, trade and business.
- Creation of tertiary nodes to provide basic social and economic services at a reasonable level of accessibility adjoining rural settlements.
- Creation of eco-tourism nodes to promote sustainable tourism development.
- Support initiatives to reduce deforestation coupled with intensified farming
- Restoration of degraded lands.
- Support high-yielding agro-forestry.
- Support reafforestation with multifunctional trees.
- Support small and medium scale enterprises to generate jobs and wealth creation.
- Support the creation and growth of agro-based light industries and agribusiness.
- Improve road network linking agricultural villages to agro-processing centres.
- Protection of rural areas and farmlands from intensive spatial development.
- Creation of light industrial zones to support agro processing.
- Designation of space for intensive irrigation dams to support agriculture.
- Training of farmers to acquire new and modern farm techniques for climate smart agriculture.
- Partner local investors for heavy investment in agriculture to resist current interest in urban land.
- Increase access to farm inputs and micro-credit facilities.
- Investment in irrigation to stimulate increased agricultural yields.
- Provision of modern warehouses to stimulate farmers to increase production.
- Source more donor funding to support agricultural activities.

- Provision of infrastructure support to promote intensive agricultural activities.
- Improve road network connectivity between the agricultural zones and agro processing centres.
- Improve road network connectivity to natural tourist attractions.
- Provide support for the hospitality industry to boost eco-tourism.
- Protection of the existing forest reserves against exploitation.
- Protection of natural tourist attractions from urban development

**Strengths of the Sustainable Agricultural Villages, Eco-Tourism and Natural Resource Protection Scenario**

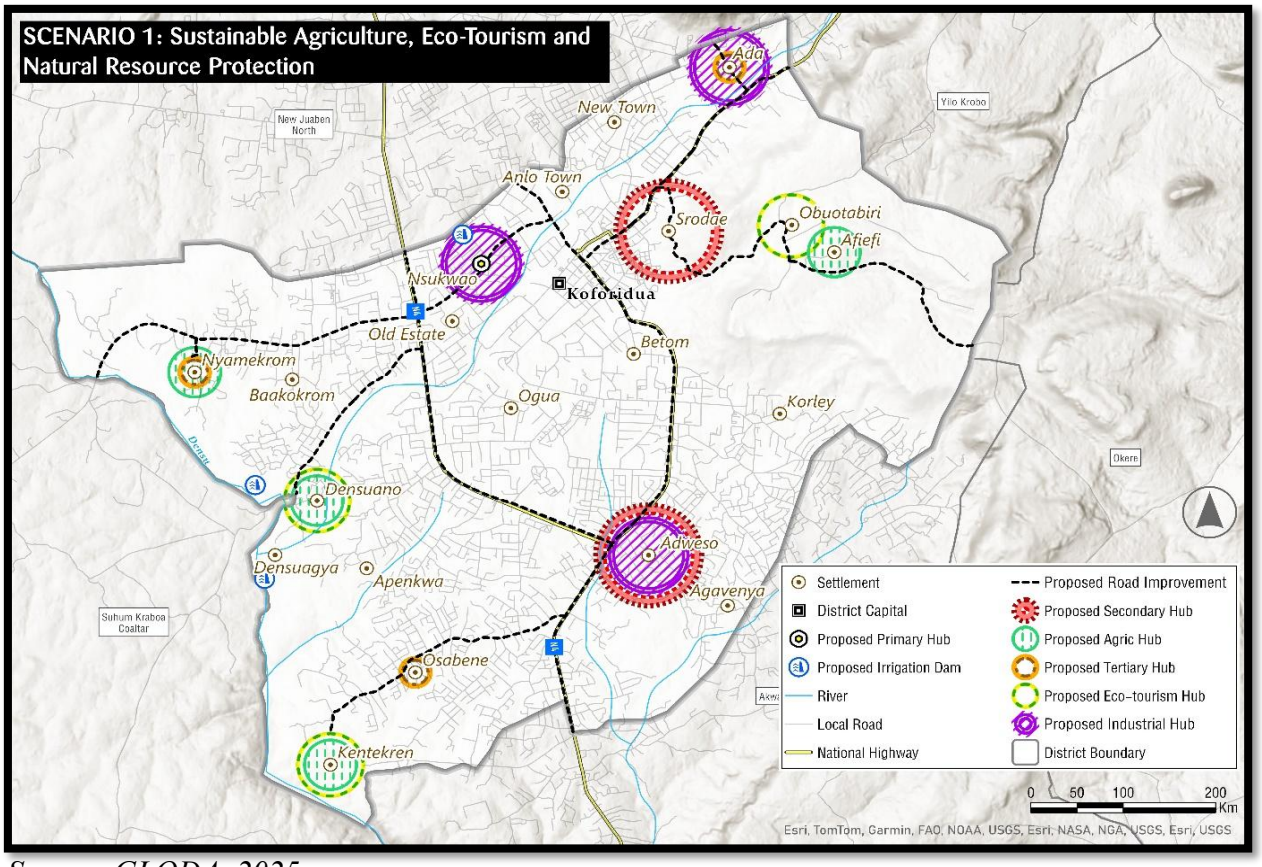
The strengths of the sustainable agricultural villages, eco-tourism and natural resource protection scenario are as follows:

1. Existence of some facilities that support agriculture sector: e.g. roads, market centers and irrigation facilities.
2. Off-farm productivity is increased with the establishment of agro-processing industries and complementary activities.
3. Promotes economic diversification.
4. Food security is ensured as agricultural zones are designated and protected.
5. The suitability of soils in the municipality to support intensive agriculture

**Weaknesses of the Sustainable Agricultural Villages, Eco-Tourism and Natural Resource Protection Scenario**

The weaknesses of the Sustainable Agricultural Villages, Eco-Tourism and Natural Resource Protection Scenario are as follows:

1. Inadequate market and storage facilities.
2. Competition of agricultural land for development.
3. Degradation of forest resources.
4. Inadequate access, but a major threat is that improved service roads and utility services to agricultural area would defeat maintaining the traditional life since such opportunity would attract urbanization.
5. Agrarian driven economies manifest in relatively slower rate of transforming the economy.
6. High cost of infrastructure in infrastructure provision for agriculture.




*Source: GLODA, 2025*

*Figure 8.1 Sustainable Agricultural Villages, Eco-Tourism and Natural Resource Protection*

### 8.4.2: Scenario Two: Business and Services Intensification, Industrial and Polycentricity Development

The Industrial development, business and services intensification, and polycentricity development scenario aims at creating strengthening the tertiary sector which is the main driver of the municipal economy by creating development nodes and clusters that will promote intensive industrial development, commerce, business and the services sector whilst ensuring sustainable settlement development by identifying growth poles and hotspot for spatial growth.

The polycentricity development will promote settlement nuclei that will focus on intensified residential, commercial, mixed use and industrial development. This scenario proposes the development of five major building blocks of primary, secondary and tertiary nodes and sustainable industrialization zones to guide the municipal's spatial development.

The objectives of the business and services consolidation, industrial and polycentricity development scenario are as follows:

1. To promote municipal economic growth and development through business and services consolidation, industrial and polycentricity spatial development.

2. To promote integrated land development in rural and urban areas in support of each other.
3. To ensure equitable spatial development driven by polycentricity spatial development.
4. To reduce incidence of poverty through diversified economic opportunities.
5. To ensure the protection of ecologically sensitive natural resources geared towards environmental sustainability.

**Features/Proposed Interventions of Scenario Two**

- Creation of primary nodes as intensive commercial centres for major commerce, administrative services, financial services, agri-business, trade and general business.
- Creation of secondary nodes as minor commercial centres for minor commerce, services, trade and business.
- Creation of tertiary nodes to provide basic social and economic services at a reasonable level of accessibility adjoining rural settlements.
- Creation of industrial zones to support industrial development.
- Creation of Service Investment Centres to boost services and business growth and development in the municipality.
- Mixed-use development along main transport routes.
- Public transport to reduce urban sprawl and reliance on private vehicles.
- Provision of market towns to provide accessible urban services and to absorb localized urbanization.
- Provide support for the hospitality industry to boost eco-tourism.
- Protect ecologically sensitive areas.
- Designation of protected areas for conservation (Forest areas).

**Strengths of the Business and Services Intensification, Industrial and Polycentricity Development Scenario**

The strengths of scenario two are as follows:

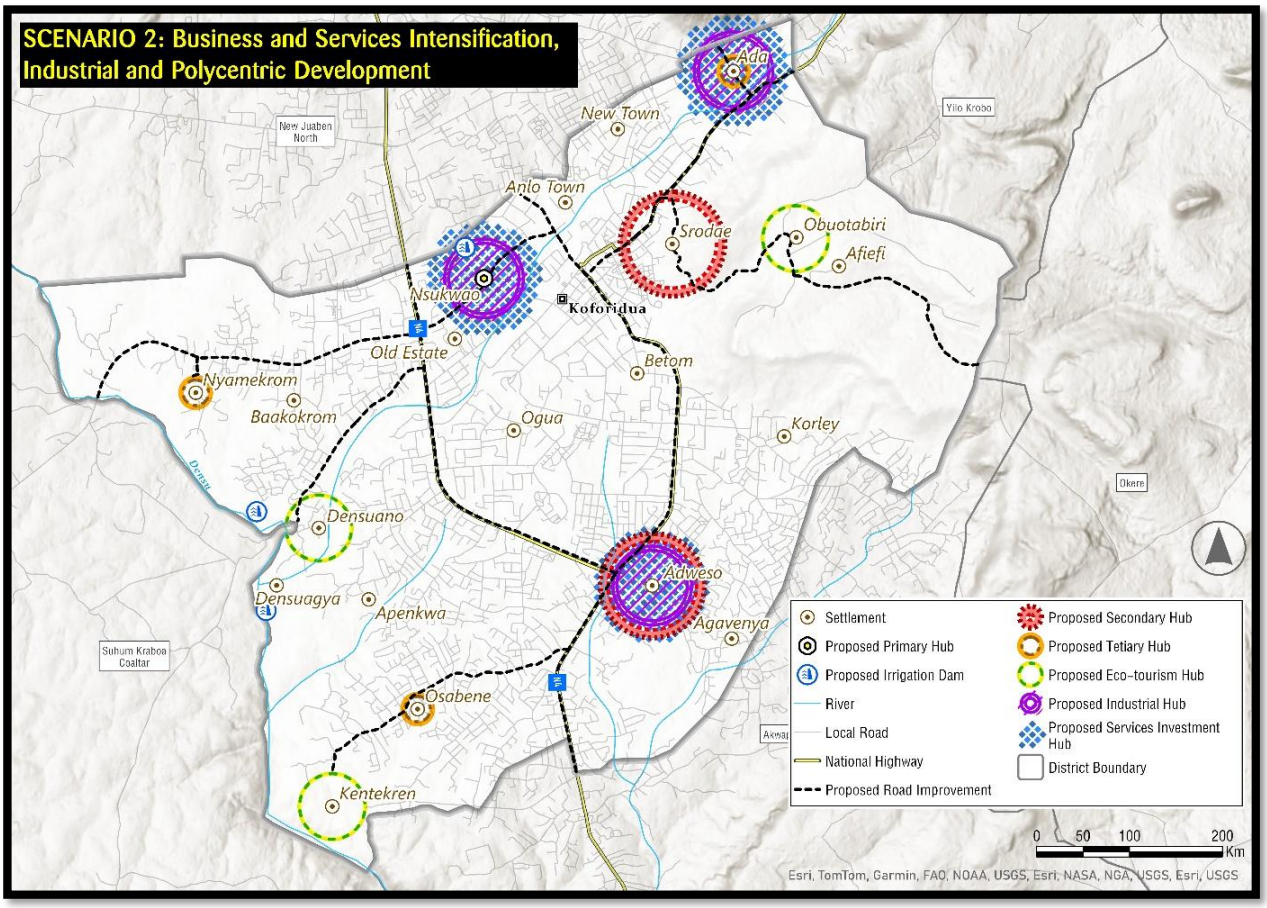
1. The polycentricity development will help quicken massive economic transformation of the municipality by ensuring a balanced economic and spatial growth of its settlements.
2. Integration of different communities, through the shared use of facilities.
3. Increase socio-economic activities.
4. Services will be expanded.

5. Creation of complementary urban networks will decongest the urban centres.
6. Easy provision of infrastructure and other services.
7. Promotes economic diversification.

**Weaknesses of the Business and Services Intensification, Industrial and Polycentricity Development Scenario**

The weaknesses of scenario two are as follows:

1. The creation of complementary urban centres can lead to urban sprawl around the network centres.
2. High cost of infrastructure in infrastructure development.
3. Insecurity/high crime rate.
4. Reduction in agricultural land.




Source: GLODA, 2025

Figure 8.2: Business and Services Intensification, Industrial and Polycentricity Development

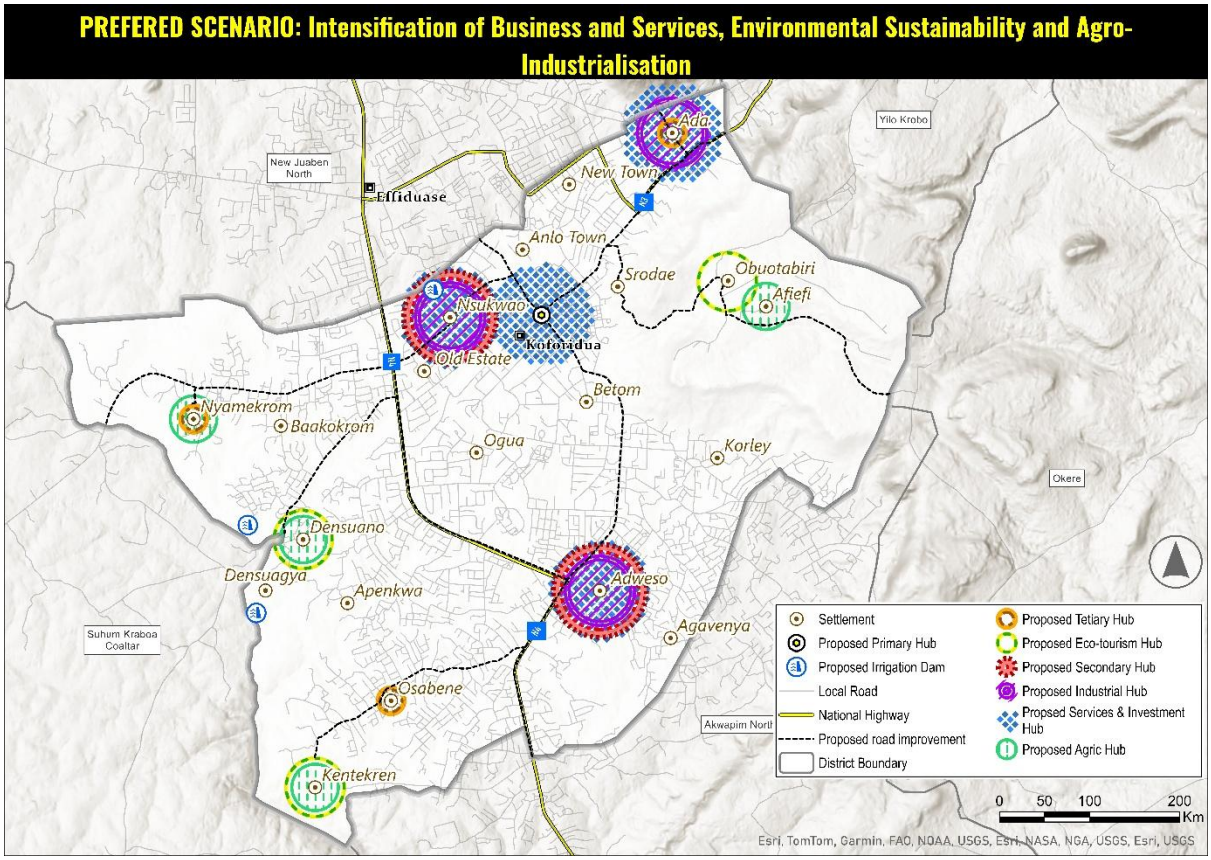
## 8.4 Preferred Scenario: Intensification of Business and Services Environmental Sustainability and Agro-Industrialization Scenario

The two scenarios were subjected to extensive stakeholder consultations spearheaded by the New Juaben South Municipal Assembly through workshops, technical working sessions and small focus group discussions. After stakeholders reviewed, debated and technical evaluated the two scenarios, the Intensification of Business and Services, Environmental Sustainability and Agro-Industrialization development Scenario (Figure 8.3) was selected as the preferred scenario for the development of New Juaben South Municipal for the next 20 years (2025-2045).

### 8.4.1 Spatial Development Concept.

The spatial development concept for the Intensification of Business and Services, Environmental Sustainability and Agro-Industrialization development Scenario is based on the following building blocks;

- The provision of a green, open space system in order to protect the municipality's natural resources;
- The provision of an effective transport system, comprising different modes of transport, promoting public and non-motorised transport;
- A mix of land uses are included to create zones where transport and land use are integrated so that transit-oriented nodes can more easily develop and in doing so, support the compactness and efficiency of the municipality;
- The linkage of the urban and rural areas through development corridors, nodes and functional activities.




Source: GLODA, 2025

Figure 8.3: Preferred Scenario New Juaben South Municipal Spatial Development Framework

## 8.5 Development Proposals

Based on the vision, goals, objectives and the preferred spatial development scenarios, these development proposals are formulated to guide the spatial development of the municipality in the next 20 years.

### 8.5.1 Settlement Proposals

**Nsukwao Primary Node**

Nsukwao Primary node will serve as the major commercial and administrative centre in the district providing highest level of services. It will be the major centre for commerce, trade, business, services, higher highest residential, mixed use and commercial densities and the greatest variety of services such as entertainment, educational, medical and social services. It will provide district and local government services.

**Srodae & Adweso Secondary Nodes**

Srodae and Adweso Secondary nodes will serve as minor commercial, administrative and centres providing social and economic services at the suburban scale. These centres will

provide land uses to support residential, commercial, financial services, sports and recreation, agri-business, wholesale and retail services.

**Osabene, Nyamekrom & Ada Tertiary Nodes**

These are enclaves that will provide basic social and economic services at a reasonable level of accessibility within the district. These centres are expected to provide the full spectrum of urban services, including economic, social, engineering and administrative. These rural service centres which are towns in the district should meet the primary and secondary needs of the community necessitating commute to the urban centres only to access tertiary and high value goods and services.

### 8.5.2 Economy

***Agriculture***

- Creation of sustainable agricultural villages to focus on intensive agriculture.
- Expansion of agricultural land for intensive agriculture.
- Increase intensive agric mechanization in the agricultural villages.
- Creation of irrigation zones to support agricultural production.
- Support initiatives to reduce deforestation coupled with intensified farming
- Improve road network linking agricultural villages to agro-processing centres.
- Protection of rural areas and farmlands from intensive spatial development.
- Designation of space for intensive irrigation dams to support agriculture.
- Training of farmers to acquire new and modern farm techniques for climate smart agriculture.
- Partner local investors for heavy investment in agriculture to resist current interest in urban land.
- Increase access to farm inputs and micro-credit facilities.
- Investment in irrigation to stimulate increased agricultural yields.
- Provision of modern warehouses to stimulate farmers to increase production.
- Source more donor funding to support agricultural activities.
- Provision of infrastructure support to promote intensive agricultural activities.
- Improve road network connectivity between the agricultural zones and agro processing centres.

***Industry***

- Identify and zone with accesses industrial sites and zones to promote industrial development in the municipality.
- Provide space for agro-processing and manufacturing industries.
- Creation of industrial nodes at Ada, Nyamekrom and Adweso.
- Provide support for small- and medium-scale agro-processing enterprises.

***Commerce and Services***

- Strengthen the Koforidua Central Business District with upscale offices and retail.
- Creation of primary nodes as intensive commercial centres for major commerce, administrative services, financial services, agri-business, trade and general business.
- Creation of secondary nodes as minor commercial centres for minor commerce, services, trade and business.
- Creation of tertiary nodes to provide basic social and economic services at a reasonable level of accessibility adjoining rural settlements.
- Creation of Service Investment Centres at Adweso, Ogua, Ada and Nsukwao to boost services and business growth and development in the municipality.

### 8.5.3 Health

- Improve quality and access to health service delivery.
- Provide health infrastructure to improve health delivery in the municipality.
- Develop capacity of health personnel through sustainable and continuous training.
- Support sensitization campaigns to abate stigmatization of persons living with HIV in the municipality.
- Promote the equitable distribution of critical staff mix in the municipality.
- Provide support for access to reproductive health and family planning services.
- Accelerate implementation of Community-based Health Planning and Services (CHPS) policy to ensure equity in access to quality healthcare.

### 8.5.4 Education

- Provision of educational facilities to replace dilapidated and inadequate educational infrastructure.
- Ensure the even distribution of schools in the municipality.
- Provision of modern classrooms equipped with ICT facilities to ensure a convenient atmosphere for students.

- Provision of ancillary facilities to support current educational infrastructure in the Municipality (i.e., kitchens for school feeding programmes, ablution facilities, etc.).
- Establishment of higher educational institutions in the municipality.

### 8.5.5 Water Infrastructure

- Increase accessibility to water infrastructure and services in urban areas.
- Ensure increased access to potable water in rural communities.
- Bigger trunk line be laid to replace the smaller lines.
- Extension of water to fast developing communities.
- Immediate provision of mechanical boreholes in deprived areas.

### 8.5.6 Sewerage and Sanitation

- Provision of adequate infrastructure and identification of sites for the disposal of waste.
- Encourage the use and provision of water closet in households in urban and rural areas.
- Poor sanitation and waste management.
- Support sensitization campaigns to promote hygienic practices in the municipality.
- Provision of appropriate sewerage system in the municipality.
- Support the maintenance of existing drainage and provision of proper drainage in urban areas and
- Ensure proper planning and design of storm-water facilities and implementation.

### 8.5.7 Information and Communication Technology

- Priority for installing optic fibre cables as a long-term strategy to promote ICT services.
- Every community, every school going child should be introduced to ICT.
- Encourage the use of ICT as a tool to enhance the management and efficiency of businesses and provision of public services.
- Improvement of the quality ICT services in the municipality.
- Provision of adequate ICT facilities in the municipality.
- Provision of internet infrastructure to support internet usage in the municipality.

### 8.5.8 Energy

- Increase dependence on renewable energy such as solar in the municipality.
- Promote the use of LPG as cheaper and sustainable energy sources for cooking and reduced dependence on fuelwood and charcoal.

- Off-grid technology should include the use of solar energy in street lighting, institutions, etc.

### 8.5.9 Tourism

- Creation of eco-tourism nodes to promote sustainable tourism development.
- Improve road network connectivity to natural tourist attractions.
- Provide support for the hospitality industry to boost eco-tourism.
- Protection of natural tourist attractions from urban development.

### 8.5.10 Transportation and Road Infrastructure

- Improve the conditions of urban and feeder roads in the municipality.
- Improve road networks linking farming communities to market centers.
- Fences should be installed along a highway to limit or control access to the highway right-of-way by pedestrians or vehicles.
- Improve road network connectivity between the agricultural zones and agro processing centres.

### 8.5.11 Environment

- Protect the Obuotabiri forest reserve from exploitation.
- Measures should be taken wherever possible to introduce tree planning and enhancement of the natural environment into agricultural, housing and other urban and development projects.
- Policies to restrict illegal mining and quarrying should be implemented.
- Care should be taken to monitor the impact of intensification of agriculture on the environment. Certain rural practices such as bush firing should be prevented through educational programmes. All measures to stop environmental degradation should have high priority.

# IMPLEMENTATION PLAN

## 9.1 Introduction

The SDF has been conceptualized after a diagnosis of the existing situation and its proposed strategies to overcome the identified challenges. This section expounds on how the proposals developed for the various sectors will be implemented by all stakeholders. The implementation plan integrates national and regional development goals while aligning with global Sustainable Development Goals (SDGs). The focus of the SDF is on long-term benefits, inclusivity, and sustainability. It is expected that the Municipal Assembly will work with all stakeholders to ensure that the proposals and actions in the plan is implemented.

## 9.2 Phasing and Timeframe

The proposals in the SDF were phased to allow for prioritization. This will ensure proposals that need huge financial investments are not timed in the short term, thereby making it realistic. For purposes of the SDF, the timeframes for the implementation of the proposals were categorized into three (3); Short-Term (1-5 years), Medium-Term (6-10 years) and Long-Term (11-20 years). In all, thirty (30) actions have been prioritised for implementation in the Short-term (10), Medium-term (7) and Long-term (13).

Proposals (Actions) planned to be implemented in the Short-Term are those that are less likely to demand huge financial investments like capacity building activities, sensitization drives, environmental conservation efforts and the formation of groups. Actions categorized under Medium-Term are those that demand financial investments but have signs of being implemented within the shortest possible time. Such actions usually have previously been documented either in the Assembly's plans or mentioned during deliberations in meetings. They include reshaping of roads, construction of lorry parks, renovations and development of tourist sites. Long-Term actions are financially demanding activities that are likely to take long spans before realization. They are actions to be funded hugely either by the central government or development partners.

## 9.3 Implementing Agencies for the Municipal SDF

The successful implementation of the Spatial Development Framework (SDF) for New Juaben South Municipal Assembly requires the active collaboration of various stakeholders. Each agency will contribute technical expertise, funding, and oversight to ensure effective and timely execution of planned initiatives. The primary implementing agencies include:

1. **New Juaben South Municipal Assembly (NJSMA):**

The lead implementing body responsible for coordinating all activities, facilitating stakeholder collaboration, and ensuring alignment with the district's development priorities.

2. **Sector-Specific Ministries and Departments:**

   **Ministry of Health (MoH):** Responsible for healthcare infrastructure, human resource development, and health service delivery.

   **Ministry of Education (MoE):** Oversees the improvement of educational facilities, teacher training, and access to quality education.

   **Ministry of Food and Agriculture (MoFA):** Leads agricultural modernization, food security, and aquaculture initiatives.

3. **Land Use and Spatial Planning Authority (LUSPA):**

Provides technical support for spatial planning, including structure plans, zoning, and sustainable land use practices.

4. **Environmental Protection Authority (EPA):**

Ensures environmental sustainability by monitoring and enforcing compliance with environmental laws, providing expertise on biodiversity conservation, and managing pollution and waste initiatives.

5. **Regional Coordinating Council (RCC):**

Facilitates inter-district collaboration, ensures alignment of district-level projects with regional and national development goals, and provides additional technical and logistical support.

6. **Ministry of Local Government, Chieftaincy and Religious Affairs (MLGCRA):**

Supports decentralization efforts, capacity building for local governance, and funding for rural development projects.

7. **Traditional Authorities:**

Assist in community mobilization, particularly in land management, cultural preservation, and the protection of sacred sites. They play a key role in fostering community participation and acceptance of development initiatives.

8. **Private Sector Partners:**

Key drivers in public-private partnerships (PPPs), investing in large-scale projects such as agro-processing factories, renewable energy farms, and tourism facilities.

9. **Non-Governmental Organizations (NGOs):**

Contribute to community-focused programs, advocacy, and capacity-building initiatives in areas such as education, health, environmental conservation, and gender empowerment.

10. **Development Partners and Donors:**

Provide financial and technical assistance for large-scale infrastructure, social development projects, and capacity-building programs.

11. **Community-Based Organizations (CBOs):**

Play a vital role in mobilizing grassroots support and ensuring local ownership of projects, particularly in areas like health, education, and environmental conservation.

### 9.3 Programme of Actions, Timeframe and Budget

The Programme of Actions, Timeframe and their corresponding Budgets have been summarized in Tables 9.1 to 9.14.

**Table 9. 9: Economy (Agriculture)**

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| 1. | Establish irrigation systems | Develop small-scale irrigation schemes for year-round farming (1000 hectares) | NJSMA | Ministry of Agric, DPs, NGOs | 1-5 | 250,000 | NJSMA, DPs, NGOs |
| 2. | Promote climate-smart agriculture | Train farmer on CSA practices like drought-resistant crops, agroforestry, and conservation agriculture | Municipal Agriculture Office-NJSMA | Ministry of Agriculture, NGOs | 1-5 years | 100,000.00 | NJSMA, DPs, NGOs |
| 3. | Build storage and processing facilities | Construct silos and agro-processing units for reducing post-harvest losses | NJSMA | Private Sector, MOFA, NGOs | 6-10 years | 200,000.00 | NJSMA, DPs, NGOs |
| 4. | Designate agricultural zones | Zone lands for agriculture at Nyamekrom, Agavenya, Trom, Kentekren, Afiefi and Nyamekrom | NJSMA | Ministry of Agriculture, NGOs | 1-5 years | 100,000.00 | NJSMA, DPs, NGOs |

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| 5. | Encourage livestock and poultry farming | Establish breeding centres and veterinary services to support cattle, goats, sheep and pig farming. | District Agriculture Office | Ministry of Agriculture | 1-5 years | 50,000.00 | NJSMA, DPs, NGOs |
| **Industry** | | | | | | | |
| 1. | Construct agro-processing industries | Establish three agro-processing industries at Nsukwao, Ada and Adweso. | NJSMA | MOTI | 6-10 | 150,000.00 | NJSMA, PPP |
| 2. | Develop industrial nodes | Identify and develop industrial zones near resources and transport hubs | NJSMA | Private Sector, | 1-5 years | 150,000.00 | NJSMA, DPs, PPP |
| 3. | Attract agro-processing industries | Provide incentives for agro-processing plants to locate within industrial nodes | NJSMA | GIPC, MOTI | 6-10 years | 300,000.00 | NJSMA, DPs, PPP |
| **Commerce and Services** | | | | | | | |
| 1. | Business Intensification | Strengthen the Koforidua Central Business District with upscale offices and retail. | NJSMA | Private Sector | 6-10 | 48,000.00 | NJSMA, DPs, PPP |

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| 2. | Service Investment Centres | Establishment of Service Investment Centres at Nsukwao, Ogua, Ada and Adweso. | NJSMA | DPs, MOTI, NGOs | 11-20 | 100,000.00 | DPs, NGOs |
| 4. | Introduce microfinance programs | Establish microfinance schemes to support small businesses. | NJSMA | DPs, Financial Institutions, NGOs | 1-5 | 100,000.00 | NJSMA, IGF |
| 5. | Digitalization of Services | Adoption of digital platforms for service delivery in local economy | NCA | NIITA, NJSMA | 11-15 years | 100,000.00 | GoG, Private Sector |
| 6. | Support for SMEs | Provide support for SMEs with subsidies, training, and access to capital in key commercial hubs | BAC | Banks, NJSMA | 1-5 years, | 100,000.00 | GoG, NGOs, DPs. |

**Table 9. 10: Human Settlement**

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| 1. | Decongest the Central Business District | Enforce traffic regulations in the municipal capital.<br><br>Relocate all traders in the streets to a new site. | NJSMA | TA, GPS | 1-5 | 30,000.00 | NJSMA, PPP, DPs |
| 2. | Urban renewal activities | Liaise with stakeholders to redevelop old building structures along major streets (urban renewal) | NJSMA | TA, PPP | 1-5 | 20,000 | PPP, DPs |
| 3. | Structure Plan Preparation | Prepare and implement structure plans for key urban areas such as Nsukwao, Ada and Adweso. | NJSMA | EPA, LUSPA, | 1-5 years | 100,000.00 | GoG, DPs |

**Table 9. 11: Water Infrastructure and Services**

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| 1. | Expansion of Water Networks | Construction of boreholes and extension of pipes in the municipality. | GWCL | NJSMA | 6-10 years | 1,000,000.00 | GoG, GWCL |
| 2. | Rainwater Harvesting Systems | Promote and subsidize the installation of rainwater harvesting systems in both residential and commercial buildings at Nsukwao, Ada and Adweso. | NJSMA | PPP | 1-5 years | 50,000.00 | GoG, Private Sector |

**Table 9. 12: Sewerage and Sanitation Services**

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| 1. | Improve waste management | Establish a waste collection and recycling system across communities | NJSMA | Waste Management Companies, NGOs | 1-5 years | 50,000.00 | PPP, GOG |
| 2. | Develop household and public sanitation facilities | Introduce subsidies to assist low-income households to build toilet facilities | NJSMA | Ministry of water and sanitation | 6-10 years | 300,000.00 | GOG |
| | | Rehabilitation and maintenance of toilets in schools and healthcare centers | NJSMA | GES/GHS | 1-5 years | 20,000.00 | IGF, DACF |
| | | Maintain Public Toilets in the Municipality | NJSMA | Waste Management Companies, NGOs | 1-5 years | 50,000.00 | IGF, DACF |
| 3. | Waste Segregation Initiatives | Implement waste segregation at source to facilitate recycling in Nsukwao, Ada, Adweso, Osabene and Srodae. | NJSMA | PPP | 1-5 years | 50,000.00 | GoG, NGOs |
| 4. | Recycling Facilities | Construction of recycling centers at Nsukwao, Ada, Adweso and Srodae to handle various types of recyclable materials. | NJSMA | PPP | 6-10 years | 300,000.00 | GoG, Private Sector |

**Table 9. 13: Storm Water Infrastructure and Services**

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| 1 | Properly manage storm water | Facilitate the expansion of existing drainages in the municipal capital to contain higher volumes of surface run-offs | NJSMA | DPs | 11-20 | 100,000 | DPs |
| | | Maintain existing drains | NJSMA | DPs. NGOs | 6-10 | 100,000 | DPs |

**Table 9. 14: Energy Infrastructure and Services**

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| 1 | Clean and renewable energy | Promote the district wide installation of solar panels in residential and commercial buildings to diversify energy sources in. | NJSMA | Energy Commission | 1-5 years | 100,000.00 | GoG, Private Sector, Donors |
| | | Sensitize the general public on the usage of renewable energy | NJSMA | MoEn | 1-5 | 10,00 | NJSMA, MoEn |

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| | | Run streetlights in Osabene, Nsukwao, Srodae, Ada and Adweso on solar energy | NJSMA | ECG, MoEn | 11-20 | 50,000 | DPs, MoEn |
| 2. | Energy Efficiency Programs | District Wide replacement of street and public facility lighting with energy-efficient LED bulbs to reduce consumption. | NJSMA | ECG | 1-5, 6-10 years | 40,000.00 | GoG, Energy Commission |
| 3. | Infrastructure Improvement and Management | Upgrade existing power lines and transformers in Nsukwao, Ada, Osabene, Srodae and Adweso to minimize transmission and distribution losses. | ECG | NJSMA | 1-5 years | 100,000.00 | GoG, PPP |

**Table 9. 15: Transport and Road Infrastructure**

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| 1. | Improve road conditions | Rehabilitate/<br>Reshape Roads | DUR | NJSM, DPs | 6-10 | 250,000 | MRH. DPs |

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| 2. | Create lorry stations | Creation of Lorry Parks | DUR | NJSMA, DPs | 6-10 | 100,000 | NJSMA, DPs |
| 3. | Maintenance and Safety Improvements | Schedule routine maintenance under the District Roads Improvement Programme (DRIP) to maintain roads in good condition. | NJSMA | GHA, DUR | (6-10 years) | 100,000.00 | GoG, Development Partners |
| | | Install safety measures like street lighting, road signs, and speed bumps, especially near schools and residential zones on all major roads in the Municipal. | NRSA | NJSMA, GHA | (1-5 years) | 50,000.00 | GoG, Development Partners, NGOs |

**Table 9. 16: Health Infrastructure and Services**

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| 1. | Train healthcare professionals | Train local health workers to strengthen community-based healthcare delivery | NJSMA | Ministry of Health, GHS, NGOs | 1-5 years | 25,000.00 | NJSMA, DPs |
| 2. | Construct new health facilities | Establish CHPs compounds in remote areas to improve access to healthcare for the rural populations. | NJSMA | GHS, NGOs | 6-10 | 60,000.00 | NJSMA, DPs |
| | | Develop mobile health units to underserved communities that are far from health facilities. | NJSMA | GHS, NGOs | 1-5 | 20,000.00 | NJSMA, DPs |
| 3. | Human Resource Development | Implement incentives including training to attract and retain healthcare professionals in rural areas in the district. | MoH | NJSMA | (1-5 years) | 20,000.00 | GoG, Development Partners |
| 4. | Access to Healthcare | Enhance district wide maternal and child healthcare services, including vaccination and outreach programs. | MoH | NJSMA, NHIS | (1-5 years) | 25,000.00 | GoG, NGOs, Development Partners |
| 5. | Disease Prevention and Control | Strengthen district wide surveillance systems and establish rapid response teams for disease outbreaks. | MoH, | NJSMA, GHS | (1-5 years) | 20,000.00 | GoG, Development Partners |

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| | | District wide expansion of malaria control initiatives, including distribution of bed nets and indoor residual spraying. | MoH | NJSMA, GHS, NGOs | (1-5 years) | 30,000.00 | GoG, NGOs, Development Partners |
| | | Increase immunization coverage, particularly in all CHPS Compounds in the district, through outreach services | MoH | NJSMA, GHS | (1-5 years) | 20,000.00 | GoG, NGOs, Development Partners |
| 6. | Emergency Medical Services | Ensure well-equipped ambulances are stationed at Nsukwao, Ada and Adweso for timely emergency response. | NAS | NJSMA, GHS, MoH | Medium-term (6-10 years) | 300,000.00 | GoG, Development Partners |
| 7. | Health Information Management Systems | Implement a digital health information management system across all healthcare facilities. | GHS | NJSMA, MoH | Long-term (11-20 years) | 10,000.00 | GoG, Development Partners |
| | | Strengthen health data collection and analysis for informed policy decisions. | GHS | NJSMA, MoH | Medium-term (6-10 years) | 40,000.00 | GoG, Development Partners |

**Table 9. 17: Education Infrastructure and Services**

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| 1. | Expansion of Educational Infrastructure | Build additional primary and JHS in underserved areas to reduce travel distance for students. | NJSMA | GES, MOE | (1-5 years) | 1,500,000.00 | GoG, Development Partners, Private Sector |
| | | Renovate and expand existing schools with facilities such as libraries, science labs, and washrooms. | NJSMA | GES, MOE | (1-5 years) | 1,000,000.00 | GoG, Development Partners, Private Sector |
| 2. | Improvement of Teaching and Learning Environment | Equip all basic schools with materials, focusing on underserved rural schools to reduce resource disparities. | NJSMA | GES, MOE | (1-5 years) | 100,000.00 | GoG, NGOs, Development Partners |
| | | Introduce ICT labs and internet in schools at Nsukwao, Ada, Adweso Srodae, Densuano and Kentekren. | Private Sector | NJSMA, GES, MoE | (6-10 years) | 500,000.00 | GoG, NGOs, DPs. |
| | | Offer District wide incentives for teachers in remote areas to improve rural-urban balance in teacher distribution annually. | NJSMA | GES, MOE | Medium-term (6-10 years) | 50,000.00 | GoG, Development Partners |

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| 3. | Education and Skill Development | Strengthen existing TVET Schools, to provide practical skills for employment. | COTVET | NJSMA, GES, MOE | (6-10 years) | 1,000,000.00 | GoG, NGOs, Development Partners |

**Table 9. 18: Environnent**

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| 1. | Protect forest reserves | Train guards to protect the existing closed forest areas from encroachment | FC | NJSMA, EPA, NADMO | 1-5 | 5,000 | FC, NJSMA, EPA |
| 2. | Water Resource Management | Implement buffer zones to protect existing rivers and streams from contamination and agricultural runoff. | NJSMA | WRI, EPA | Short-term (1-5 years) | 150,000.00 | GoG, NGOs, Development Partners |

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| 3. | Biodiversity Conservation | Identify and protect areas with rich biodiversity, promoting conservation of unique flora and fauna. | EPA | NJSMA | Short-term (1-5 years) | 100,000.00 | GoG, NGOs, Development Partners |
| | | Establish conservation areas and nature parks in Obuotabiri, Kentekren and Densuano to support eco-tourism and biodiversity conservation. | NJSMA, | GTA, EPA | Medium-term (6-10 years) | 100,000.00 | GoG, Private Sector, Development Partners |
| 4. | Enforcement of Environmental Regulations | Enforce compliance with environmental laws and penalties for violations. | NJSMA | EPA, GP, DC | Short-term (1-5 years) | 30,000.00 | GoG |
| | | Establish a monitoring system to track progress in environmental programs and policies. | EPA | NJSMA, DP | Medium-term (6-10 years) | 15,000.00 | GoG, Development Partners |

**Table 9. 19: Communication Infrastructure and Services**

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| 1. | Development of ICT Infrastructure | Establish ICT centers to provide internet access in the municipal | PPP | NCA, NJSMA | 1-5 years | 500,000.00 | DPs, GOG |
| 2. | Improve signal strength and expand network coverage | Install additional telecommunication masts and fibre optic infrastructure | District Assembly | National communication Authority, Telecom Companies | 1-5 | 100,000.00 | PPP, Donor Fund |
| 3. | Establish ICT centers | Facilitate the establishment of ICT centers in 25 selected basic schools | GES | NJSMA, DPs, NGOs | 11-20 | 400,000 | GES, DPs, NGOs |

**Table 9. 20: Gender and Development**

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| 1. | Support for women entrepreneurs | Enhance business development services specifically targeted at women, including access to microcredit, business training, and | NJSMA | PPP | 1-5 years | 150,000.00 | GoG, DP |

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| | | mentorship programs within the district | | | | | |
| 2. | Reduce gender-based violence (GBV) | Conduct public awareness campaigns to address gender-based violence (GBV) within the district | DOVVSU | NSJMA, NCCE, NGOs | 1-5 years | 15,000.00 | GoG, DP |
| 3. | Support services for GBV survivors | Establish safe spaces (shelters and counseling centers) for survivors of gender-based violence at Nyamekrom and Zongo | NJSMA, | NGOs, PPP | 6-10 years | 25,000.00 | GoG, DP |
| 4. | Improve access to maternal health care | Construct maternal health clinics as well as train midwives and community health workers to support women during childbirth at Adweso, Nsukwao, Srodae and Ada. | GHS | NJSMA, UNHCR, NGOs | 6-10 years | 400,000.00 | GoG, DP |
| 5. | Promote gender equality in education | Scholarship and financial support for girls at the district | NJSMA | Development partner, Ministry of Gender, GES | 1-5 | 250,000.00 | Donor Fund |

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| | | Campaign on community awareness programs on girls education in the district | NJSMA | Ministry of Gender, GES | 1-5 | 60,000.00 | Donor Fund |
| 6. | Empower women economically | Train women in gainful employment skills in tailoring, hairdressing and food processing | NJSMA | MOG, GEA | 1-5 | 110,000.00 | Donor Fund |
| | | Support the formation of women cooperatives in handicrafts and small-scale trade | NJSMA | MOG, MOTI | 1-5 | 60,000.00 | Donor Fund |
| 7. | Address gender-based violence | Establish support centers and education campaigns on gender equality | NJSMA | MOG, NGOs | 6-10 | 30,000.00 | GOG, DPs |

**Table 9. 21: Tourism**

| No. | Action | Description | Implementing Agencies | | Timeframe (Years) | Est. Cost (US$) | Source of Funding |
|---|---|---|---|---|---|---|---|
| | | | Lead | Supporting | | | |
| 1. | Development of Key Tourism Sites | Development of tourist sites in Densuano, Kentekren and Obuotabiri | NJSMA | GTA, TA | Short-term (1-5 years) | 1,000,000.00 | GoG, NGOs, Private Sector |
| | | Develop eco-lodges and resorts near forests, and scenic areas using sustainable building practices. | Private sector | NJSMA, TA, GTA | Medium-term (6-10 years) | 1,000,000.00 | GoG, Private Sector, NGOs |
| 2. | Infrastructure Development for Tourism | Encourage development of hotels, guesthouses, and eco-lodges around tourist hotspots, particularly Densuano, Kentekren and Obuotabiri. | NJSMA | GTA, EPA | Short to Medium-term (1-10 years) | 30,000.00 | Private Sector, GoG |
| | | Enhance infrastructure like clean water, electricity, and roads at major tourism sites. | NJSMA | GTA, ECG, GWCL, NCA, TELCOS | Short to Medium-term (1-10 years) | 400,000.00 | GoG, Development Partners, NGOs |
| 3. | Promotion and Marketing of Tourism | Create a municipal tourism website, social media campaigns, and collaborate with Ghana Tourism Authority for marketing. | NJSMA | GTA | Short-term (1-5 years) | 20,000.00 | GoG, Private Sector |

## MONITORING AND EVALUATION

### 10.1 Introduction

The preparation of the Spatial Development Framework (SDF) for New Juaben South Municipality is an indispensable initiative aimed at guiding the sustainable development and growth of the municipality. To ensure the effective implementation of the SDF, a vigorous monitoring and evaluation (M&E) mechanism is essential.

This M&E plan has been designed to track progress, identify challenges, and inform decision-making throughout the SDF preparation process. The mechanism will enable stakeholders to assess the relevance, effectiveness, efficiency, and sustainability of the SDF, ultimately contributing to the achievement of the municipal's development goals.

The M&E mechanism will focus on key performance indicators (KPIs), outputs, and outcomes, ensuring that the SDF preparation process is transparent, accountable, and responsive to the needs of stakeholders.

### 10.2 Stakeholder Analysis

The stakeholder analysis for the Spatial Development Framework (SDF) aims to ensure inclusive participation in the planning, implementation, and monitoring processes. This analysis identifies key interest groups and their roles in implementing the SDF. By classifying stakeholders into primary and secondary categories, the analysis highlights their specific needs, interests, and responsibilities, ensuring risks, conflicts, and constraints are addressed effectively.

**Stakeholder Classification**

1. **Primary Stakeholders**

   These include individuals and groups directly affected by the implementation of the SDF, such as initiators, implementers, financiers, and direct beneficiaries. Examples include traditional authorities, District Assemblies, local communities, and members of parliament.

2. **Secondary Stakeholders**

   These include groups indirectly involved or affected by the implementation of the SDF, such as Civil Society Organizations (CSOs), Development Partners, and the media.

**Table 10.1: Stakeholders for the SDF and their Roles/Responsibilities**

| Sn | Stakeholders | Classification | Needs/Interests/Responsibilities | Involvement in SDF Activities |
|---|---|---|---|---|
| 1 | Assembly Members and Zonal Councils | Primary | -Policy formulation<br>- Implementation<br>- Supervision and monitoring of projects<br>- Dissemination of information | - Data collection<br>- Monitoring/verification visits<br>- Review meetings<br>- Dialogue and community engagement |
| 2 | Heads of Departments (DA) | Primary | - Policy implementation<br>- Technical advice<br>- Coordination of projects<br>- Supervision and reporting | - Data collection and analysis<br>- Monitoring and evaluation<br>- Reporting<br>- Logistics provision |
| 3 | Traditional Authorities | Primary | - Land management<br>- Cultural and customary advisory roles<br>- Community mobilization<br>- Project monitoring and feedback | - Validation visits<br>- Data collection<br>- Community engagement |
| 4 | District Assembly and Administration | Primary | - Coordination of SDF activities<br>- Resource mobilization<br>- Implementation<br>- Monitoring and evaluation | - Organize validation workshops<br>- Reporting<br>- Stakeholder engagement |
| 5 | Local Communities | Primary | - Transparent governance<br>- Access to development projects<br>- Monitoring project impacts | - Feedback on local needs<br>- Participation in SDF validation workshops and implementation |
| 6 | Regional Coordinating Council (RCC) | Primary | - Coordination of district-level activities<br>- Capacity building<br>- Monitoring and reporting | - Validation visits<br>- Stakeholder coordination<br>- Supervision of progress |

| | | | | |
|---|---|---|---|---|
| 7 | Environmental Protection Agency (EPA) | Secondary | - Enforcing environmental regulations<br>- Promoting biodiversity conservation<br>- Providing technical advice | - Site inspections<br>- Data validation<br>- Monitoring project compliance |
| 8 | Civil Society Organizations (CSOs) | Secondary | - Influencing policy<br>- Transparency and accountability<br>- Monitoring of projects | - Review meetings<br>- Monitoring and dissemination of findings |
| 9 | Development Partners (DPs) | Secondary | - Financial and technical support<br>- Monitoring project implementation<br>- Auditing and validation | - Review meetings<br>- Verification visits<br>- Reporting |
| 10 | Media | Secondary | - Information dissemination<br>- Public awareness<br>- Advocacy for project transparency | - Reporting<br>- Public education campaigns |
| 11 | Ministries, Departments, and Agencies (MDAs) | Secondary | - Policy direction<br>- Technical and financial support<br>- Monitoring and evaluation of activities | - Reporting<br>- Validation meetings |
| 12 | Member of Parliament (MP) | Primary | - Financing of development projects<br>- Policy formulation<br>- Monitoring | - Stakeholder engagement<br>- Community outreach |
| 13 | Land Use and Spatial Planning Authority (LUSPA) | Primary | - Spatial planning<br>- Technical advisory services<br>- Development of structure and local plans | - Technical validation meetings<br>- Project site visits |
| 14 | Office of the Head of Local Government Service | Primary | - Capacity building<br>- Technical support<br>- Monitoring and reporting | - Stakeholder workshops<br>- Reporting |

| | | | | |
|---|---|---|---|---|
| 15 | Utility Service Providers | Secondary | - Provision of utility services<br>- Implementation of infrastructure projects<br>- Technical advisory | - Stakeholder dialogue<br>- Proposal submission |
| 16 | Consultants | Secondary | - Technical expertise<br>- Monitoring and evaluation of projects | - Stakeholder workshops<br>- Reporting |

### 10.3 Monitoring

The Monitoring Matrix provides a structured framework for tracking the progress and performance of key actions outlined in the Spatial Development Framework (SDF) for New Juaben South Municipality. It identifies specific goals, linked objectives, and measurable actions to ensure that short-term Medium-term and long-term targets are achieved effectively.

The matrix outlines key indicators for measuring outputs, clearly defining their baseline values, annual targets, and disaggregation by location or focus area. It also assigns responsibilities to relevant implementing agencies to ensure accountability, while specifying the frequency of monitoring activities to facilitate timely progress reporting and adjustments.

This approach ensures that development interventions such as infrastructure improvements, tourism upgrades, water access expansion, and renewable energy initiatives are monitored systematically, enabling evidence-based decision-making and improved outcomes for the district.

The Monitoring Matrix is designed to enhance transparency, measure impacts, and ensure that the SDF goals are achieved within the specified short-term timeframe.

**Table 10.2: Monitoring Matrix (Short-Term, 1-5 Years)**

| **Goal: Promote Diversified and Sustainable Local Economic Development** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Linked Objective: Designate Agricultural lands to ensure food security**<br>**Action:** Climate Smart Agricultural Practices | | | | | | | | | | | |
| Indicators | Indicator Definition | Indicator Type | Baseline 2024 | Targets | | | | | Disaggregation | Monitoring Frequency | Responsibility |
| | | | | 2025 | 2026 | 2027 | 2028 | 2029 | | | |
| Hectares of land developed for crop production | Total area (in 1000 hectares) under cultivation using modern practices | Output | 2,406 hectares | 200 | 200 | 200 | 200 | 200 | Location (Nyamekrom, Ada, Kentekren, Afiefi & Nyamekrom) | Annually | MOFA, NJSMA, GIDA |
| Construction of Strategic Food Storage System | Total number of storage facilities built | Output | 0 systems | 0 | 1 | 1 | 1 | 1 | Location (Nyamekrom & Afiefi) | Annually | MOFA, NJSMA |
| Agricultural Training Programs | Total number of farmers trained | Outcome | 3,749 farmers | 500 | 500 | 800 | 1000 | 949 | Male/Female | Quarterly | DAD, NJSMA |
| **Action:** Support for SMEs | | | | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Support for SMEs | Total number of SMEs receiving support | Outcome | 0 | 500 | 500 | 500 | 500 | 500 | Sector (Agriculture, Trade, etc.) | Semi-annually | NJSMA, BAC Banks |
| **Goal: Promote Expanded Infrastructural Development and Resilient Built Environment** | | | | | | | | | | | |
| **Linked Objective: Promote a Sustainable, spatially integrated, balanced and orderly development of human settlements**<br>**Action:** Structure Plan for Key Urban Communities | | | | | | | | | | | |
| Number of structure plans developed and implemented | Total number of structure plans prepared | Output | 0 plans | 1 | 1 | 1 | 1 | 1 | Location (Nsukwao, Betom, Srodae, Atekyem, Anlo Town, etc.) | Annually | NJSMA, EPA, LUSPA. |
| **Action:** Enforce traffic regulations in the municipal capital | | | | | | | | | | | |
| Percentage reduction in traffic situation | Assesses how eased the traffic situation has become in the CBD | Outcome | 50% | 10% | 10% | 10% | 10% | 10% | -Koforidua Central | Annually | NJSMA, MTTD |
| **Action:** Liaise with stakeholders to redevelop old building structures along major streets (urban renewal) | | | | | | | | | | | |
| Number of buildings redeveloped | Measures the count of number of | Output | 1 | 5 | 5 | 5 | 5 | 5 | -Koforidua | Annually | NJSMA |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | redeveloped buildings | | | | | | | | | | |
| **Goal: Promote A Balanced Distribution of Social and Economic Opportunities** | | | | | | | | | | | |
| **Linked Objective: Ensure Even Distribution of Social Amenities by 2035**<br>**Action:** Rainwater Harvesting System | | | | | | | | | | | |
| Number of Rainwater Harvesting System Installed | Total number of Rainwater Harvesting System Installed | Output | 0 facilities | 3 | 5 | 7 | 9 | 12 | Location (Nsukwao, Srodae, Ada and Adweso etc.) | Annually | NJSMA, Private Sector |
| **Goal: Promote A Balanced Distribution of Social and Economic Opportunities** | | | | | | | | | | | |
| **Linked Objective: Ensure Even Distribution of Social Amenities by 2035**<br>**Action:** Waste Segregation Initiatives | | | | | | | | | | | |
| Percentage of households participating in waste segregation | Proportion of households engaged in waste segregation practices | Outcome | 0% | 10% | 20% | 30% | 40% | 50% | Location (Nsukwao, Ada, Srodae, Adweso) | Annually | NJSMA |
| **Goal: Promote Expanded Infrastructural Development and Resilient Built Environment** | | | | | | | | | | | |
| **Linked Objective: Efficient and Equitable Distribution of Urban Infrastructure, Facilities and Services**<br>**Action:** Clean and Renewable Energy | | | | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of solar panel installations | Total number of residential and commercial buildings with solar panels installed | Output | 0 systems | 50 | 100 | 150 | 200 | 250 | Location | Annually | NJSMA, Energy Commission |
| **Goal: Promote Expanded Infrastructural Development and Resilient Built Environment** | | | | | | | | | | | |
| **Linked Objective: Improve Efficiency and Effectiveness of Road Transport Infrastructure by 10% Annually**<br>**Action:** Road Improvement | | | | | | | | | | | |
| Length of road upgraded | Total kilometres of road upgraded to improve connectivity | Output | 260 km | 50km | 50 km | 50 km | 50 km | 60 km | Road sections (, etc.) | Annually | NJSMA, DUR & DFR |
| **Goal: Promote Expanded Infrastructural Development and Resilient Built Environment** | | | | | | | | | | | |
| **Linked Objective: Ensure Affordability, Equitable, Easily Accessible and Universal Health Coverage**<br>**Action:** Construction of New Health Facilities | | | | | | | | | | | |
| Number of health facilities | Total number of new or upgraded | Output | facilities | 2 | 3 | 4 | 5 | 6 | Location (Nyamekrom, Ada, Klutown, | Annually | NJSMA, MoH, GoG |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| constructed or renovated | healthcare facilities | | | | | | | | Agavenya, Kentekren etc.) | | |
| **Action:** Expansion of Educational Infrastructure | | | | | | | | | | | |
| Number of new primary and junior high schools constructed | Total number of new schools built in underserved areas | Output | schools | 2 | 3 | 4 | 5 | 6 | Location (Nyamekrom, Ada, Klutown, Agavenya, Kentekren, etc.) | Annually | NJSMA, GES, GoG |
| **Action:** ICT Infrastructure Development | | | | | | | | | | | |
| Number of telecommunication masts installed | Total number of telecommunication masts constructed in rural communities | Output | 0 masts | 2 | 4 | 6 | 8 | 10 | Location (Nyamekrom, Ada, Klutown, Agavenya, Kentekren etc.) | Annually | GCT, NJSMA, MLGDRD, NITA |
| Number of ICT centers established | Total number of ICT centers providing internet access | Output | 0 centers | 1 | 2 | 3 | 4 | 5 | Location (Osabene, Srodae, Nsukwao, Ada, etc.) | Annually | NCA, NJSMA, PPP |
| **Goal: Safeguard the Natural Environment to Protect Biodiversity** | | | | | | | | | | | |
| **Linked Objective: To Boost and Develop the Tourism Potential of the Municipality by 2045** | | | | | | | | | | | |

| **Action:** Development of Tourist Sites | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Number of tourism sites upgraded | Total number of key tourism attractions upgraded with facilities | Output | 0 sites | 1 | 2 | 1 | 1 | 1 | Location (Densuano, Kentekren and Obuotabiri, etc.) | Annually | NJSMA, Ghana Tourism Authority |

**Table 10.3: Monitoring Matrix (Medium Term, 6-10 Years)**

| **Goal: Promote Diversified and Sustainable Local Economic Development** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Linked Objective: Establish and Resuscitate Small Scale and Medium Scale Agro-Based Industries:**<br>**Action:** Establish New Agro-Processing Units | | | | | | | | | | | |
| Indicators | Indicator Definition | Indicator Type | Baseline 2029 | Targets | | | | | Disaggregation | Monitoring Frequency | Responsibility |
| | | | | 2030 | 2031 | 2032 | 2033 | 2034 | | | |
| Number of agro-processing factories constructed | Total number of factories built | Output | 0 factories | 0 | 0 | 1 | 1 | 1 | Type of factory (tomato, gari, pineapple) | Annually | NJSMA, MOFA, Private Partners |
| Action: Establishment of Irrigation Systems | | | | | | | | | | | |
| Establishment of Irrigation Systems | Total area (in hectares) under irrigation | Output | 0 hectares | 500 | 500 | 1,000 | 1,000 | 1,000 | Location (Afiefi, Densuano, Kentekren, Nyamekrom) | Annually | MOFA, NJSMA |
| **Goal: Promote A Balanced Distribution of Social and Economic Opportunities** | | | | | | | | | | | |
| **Linked Objective: Ensure Even Distribution of Social Amenities by 2035**<br>**Action:** Recycling Activities | | | | | | | | | | | |
| Number of recycling | Total number of recycling facilities | Output | 0 centers | 1 | 2 | 3 | 4 | 4 | Location (Nyamekrom, | Annually | NJSMA, Private Sector |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| centers constructed | handling recyclable materials | | | | | | | | Kentekren and Densuano). | | |

### 10.4 Evaluation Matrix

*Table 10.22: Evaluation matrix*

| Evaluation Criteria | Evaluation Questions | Data Needed | Data Sources | Data Collection Method |
|---|---|---|---|---|
| **Relevance** | 1.0 Is the program aligned with the Strategic Development Framework (SDF)? | 2022-2025 Strategic Development Framework (SDF) | SDF Document, NDPC Guidelines | Questionnaire |
| | 1.1 Is the program consistent with the SDF priorities? | 2022-2025 Development Programmes | SDF Document, DMTDP | Questionnaire, Interview |
| | 1.2 Is the program aligned with the prioritized development needs of the Assembly? | Development Needs Assessment | Assembly Records | Interview |
| **Efficiency** | 2.0 Is the approach to achieving the program objectives appropriate? | Program Objectives and Activities (POA) | SDF | Questionnaire, Interview |
| | 2.1 Are the program objectives clear and specific? | Program Objective Documents | SDF POA | Interview |
| | 2.2 Can the program objectives be measured using available data? | Data Availability Assessment | SDF, POA | Interview, Document Analysis |
| | 2.3 Can the program objectives be realistically achieved within the set timeframe? | Implementation Plan | Implementation Records | Document Review |

| | | | | |
|---|---|---|---|---|
| | 2.4 Is there a clear logical sequence from each component to the program objectives? | Logical Framework Analysis | Program Documents | Document Review |
| | 2.5 Was the program designed considering the successes of similar programs within the district and others? | Comparative Program Analysis | Evaluation Reports | Document Review, Interview |
| **Effectiveness** | 3.0 Was the implementation of sub-programs effective in achieving the overall objectives? | Quarterly/Annual Progress Reports | Progress Report File | Questionnaire, Interview |
| | 3.1 Were plans for the approval and implementation of sub-projects followed as intended? | Implementation Progress Reports | Project Records | Document Review, Interview |
| | 3.2 Was there an integrated management system for sub-projects, including roles for program managers? | Program Management Assessment | Management Records | Interview, Document Review |
| | 3.3 Did stakeholders adequately understand the Assembly's program? | Stakeholder Awareness Survey | Stakeholder Records | Survey, Interview |
| | 3.4 Was a shared monitoring system in place among stakeholders, and was relevant data adequately collected? | Monitoring System Reports | Monitoring Data Records | Questionnaire, Interview |
| | 3.5 Were collaboration, coordination, risk management, and revision activities conducted effectively? | Coordination Activity Logs | Assembly Records | Document Review, Interview |
| **Impact** | 4.0 To what extent was the program objective achieved? | Achievement Metrics | Annual Progress Reports | Questionnaire, Interview |

| | | | | |
|---|---|---|---|---|
| | 4.1 What impact did the program have on achieving the strategic goals of the SDF? | Impact Assessment Report | Progress Report File | Interview, Focus Group Discussion |
| | 4.2 Were there any additional, unintended impacts from the program implementation? | Unintended Impact Analysis | Evaluation Reports | Interview, Document Review |
| **Sustainability** | 5.0 To what extent are the program outcomes sustainable? | Sustainability Metrics | Evaluation Reports | Questionnaire, Interview |
| | 5.1 Were mechanisms established to ensure the continuation of program benefits? | Sustainability Mechanism Analysis | Evaluation Reports | Interview, Focus Group Discussion |

## 10.5 Conclusion

The New Juaben Municipality is one of the 33 districts in the Eastern Region with diverse physical, environmental and topographic that support diverse economic activities in the region. The new Juaben south Municipal assembly is no exclusion from the benefits being enjoyed by the municipality. It is more endowed with commercial activities with help boost the economic base of the assembly. The population characteristic of the assembly is very diverse in several respects.

The structure of the assembly population indicates that the population is more youth than the aged. This shows that the dependency of the non-working class on the working class (economically active population) is low. This means that there are more physically abled people to help boose the environmental, economic and social aspects of municipality to enable it attain its supposed goals.

A majority of people in the municipality use electricity instead of other sources of light. This mitigates the problem of house burns due to the former use of kerosene lamps and candles. And the main source of light (electricity) is very reliable in the municipality since a majority of the people patronize it

Migrants are a part of the population that can be found in the municipality. The presence of migrants from different parts of the country indicated that there is high cultural exchange taking place and it in turn helps reduce ethnic bias. The fertility rate of the municipality is lower than the Eastern Regional fertility average. This means that mortality is still a problem in the municipality which needs to be taken seriously. With education, the level of females that are being enrolled in the primary, JHS and SHS has increased, leading to a high level of Girl-child education. Compared to the former statistics on Girl-child education, this is an improvement in the educational sector.

A larger population reside in the urban areas, which means that the pressure on services in the municipality. Showing that there are different kinds of ethnic groups residing in the urban area and the levels of education and literacy rate are lower among rural areas than in the urban areas.

Households in the municipality are male headed, constituting of compound houses which are the most of all the housing units. This shows that the extended kind of family is dominant in the municipality and relatives and siblings constitute large proportion of both rural and urban households.

According to Hugh Barton's book City of Wellbeing, (1) good jobs; (2) well-being (here defined as life satisfaction); (3) environment; (4) fairness; and (5) health are measures to measure progress. And looking at the resources (both human and natural) that can be found in the municipality, we are far from being labelled ''progressed''. If sustainable development was used as a metre to grade our municipality, do you think after this generation the next generation will be able to function with the existing condition?

The municipality has so much potential to one of the best and if not the best. But there are so many challenges facing the municipality that we have to take seriously before they escalate, whether large or small. No matter the challenges being faced by the municipality, we can either (1) mitigate (i.e. reducing the severity); and (2) adaptation (i.e. making the human habitat more resilient to change). And with that, the survival of the municipality will be guaranteed.