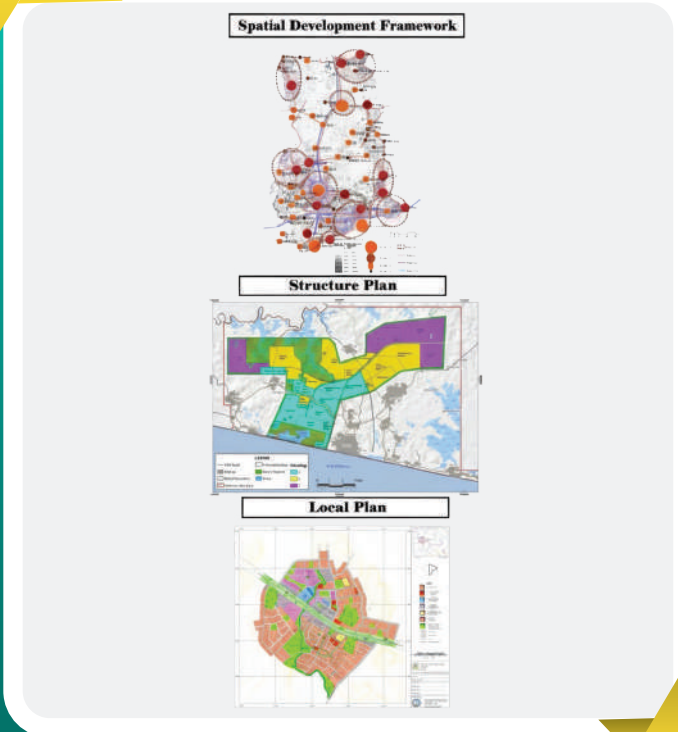
REPUBLIC OF GHANA

MINISTRY OF LOCAL GOVERNMENT,
CHIEFTAINCY AND RELIGIOUS AFFAIRS

LAND USE AND SPATIAL PLANNING AUTHORITY



MANUAL
FOR PREPARATION OF
SPATIAL PLANS
(REVISED EDITION)

OCTOBER, 2025

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Minister's **Foreword**

Hon. Ahmed Ibrahim (MP)
Minister, Ministry of Local Government, Chieftaincy and Religious Affairs

Effective spatial planning is fundamental to Ghana's sustainable development agenda. It determines how land is used and managed effectively to create vibrant and liveable human settlements. As Ghana continues to urbanize rapidly, it is essential to guide the growth of cities, towns, and rural areas with clear, inclusive, and well-coordinated plans.

This Revised Manual for Preparation of Spatial Plans, prepared by the Land Use and Spatial Planning Authority (LUSPA) under the oversight of the Ministry of Local Government Chieftaincy and Religious Affairs, presents a standardized and practical guide for preparing the three (3) levels of spatial plans in Ghana—Spatial Development Framework (SDF), Structure Plan (SP), and Local Plan (LP).

The Revised edition outlines the full planning process - from how plans are initiated, through stakeholder engagement and data requirements, to final approval and implementation. Notably, it emphasizes the importance of stakeholder consultations, recognizing that meaningful public participation is essential to producing inclusive, locally owned, and implementable plans.

This document comes at a critical time in the developmental agenda of the country. As government deepens decentralization and strengthens the capacity of local authorities, there is an urgent need to equip our planning institutions with the tools and guidance for smarter, more collaborative, and effective planning. Whether it is for new development areas or the reorganization of existing ones, this manual provides a consistent approach to spatial planning nationwide.

I commend LUSPA for its bold leadership in revising this important national document. I urge Metropolitan, Municipal and District Assemblies (MMDAs), Planners and other Built Environment Professionals, Academia, Land Owners, Traditional Authorities, Development Partners and other stakeholders to adopt and strictly apply this manual. Together, let us work to create a spatial future that is well-ordered, resilient, inclusive and reflective of our collective aspirations.

Board Chairman's **Preface**

Jonathan Kwasi Azasoo (FGIP)
Board Chairman,
Land Use and Spatial Planning Authority

The Revised Manual presents the planning processes and approaches involved in the preparation of the three (3) levels of spatial plans namely; Spatial Development Framework (SDF), Structure Plan (SP) and Local Plan (LP). It outlines plan initiation processes, roles and responsibilities of key stakeholders, resources needed including data requirements and data sources for the various levels of plans, approaches to stakeholder consultations, approval processes and monitoring and evaluation processes.

The Revised Manual seeks to ensure consistency across the plan preparation processes for the three levels of plans in the country. It emphasizes the importance of adequate stakeholder consultations which is a key element in the spatial planning process. This is achieved by ensuring that proponents of spatial plans hold a minimum of three (3) stakeholder consultation workshops during the plan preparation period. Ultimately, stakeholder consultations encourage buy-in and ownership of the plans for effective implementation.

The steps outlined in the Revised Manual are applicable to both greenfield and brownfield plan preparation. The processes, however, may extend beyond planned timelines depending on data availability, but it should not be halted due to its cyclical nature.

Finally, the document is organized in four sections. Section one discusses the background and purpose of the spatial plans. Sections Two, Three and Four outline the processes involved in preparing each of the spatial plans, namely SDFs, SPs and LPs respectively.

Acknowledgements

Kwadwo Yeboah (Ph.D., FGIP)
Chief Executive Officer,
Land Use and Spatial Planning Authority

The successful revision of the Manual for the Preparation of Spatial Plans would not have been possible without the collective effort, commitment, and support of a wide range of individuals and relevant institutions.

First and foremost, the Authority expresses its profound grateful to Hon. Ahmed Ibrahim (MP), Minister for Local Government, Chieftaincy and Religious Affairs (MLGCRA), Hon. Rita Naa Odoley Sowah (MP), Deputy Minister, MLGCRA and Amin Abdul-Rahaman, Chief Director, MLGCRA for their strategic oversight and commitment to the revision process.

Our sincerest appreciation goes to Pln. Jonathan Kwasi Azasoo, LUSPA Board Chairman, the current LUSPA Board Members, Pln. Emeritus Professor Kwasi Kwafo Adarkwa (immediate past LUSPA Board Chairman), former LUSPA Board Members, Pln. Chapman Owusu-Sekyere (Dep. C.E.O., LUSPA), Pln. Felix Offei (Director, Standards and Compliance), Pln. Mohammed Alhassan Damba (Director, Research, Monitoring and Evaluation), Pln. Patrick Apraku (Ag. Director, Spatial Planning), all LUSPA Regional Directors, Deputy Directors and Heads for their invaluable and tireless efforts in reviewing and refining the contents of the manual.

Special appreciation goes to Laetitia Erny (Component Manager), Simon Manu (Component Manager) and Harriet Gyan (Component Manager) of the Participation, Accountability and Integrity for a Resilience Democracy (PAIReD) programme commis-

sioned by the German Federal Ministry for Economic Cooperation and Development (BMZ), co-financed by the European Union and the Swiss State Secretariat for Economic Affairs (SECO) and implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH in cooperation with the Ministry of Finance, for their partnership and technical support in the revision process and stakeholder engagements that shaped this document.

We also acknowledge the contributions of the various Ministries, Departments and Agencies (MDAs) across the country and Regional Coordinating Councils (RCCs) whose inputs enriched the contents of the Manual. Further gratitude goes to the Metropolitan, Municipal and District Assemblies (MMDAs) who are the primary users and implementers of this Manual, for their time, insights, and commitment during the review process.

We extend our appreciation to the Traditional Authorities, Members of Academia, Civil Society Organizations, Non-Governmental Organizations and Professional Bodies whose experience and technical feedback shaped the content of the document.

The hard work and dedication of the Technical Committee Members responsible for the review of the manual, are duly acknowledged. Special recognition is given to:
Pln. Dr. Benedict Arkhurst (Team Lead-LUSPA); Pln. Mrs. Ama Agyeiwaa Boadu (LUSPA); Pln. Elvis Mensah (LUSPA); Pln. Sarah Gyogluu (LUSPA); Pln. Amanda Ablah Doagbodzie (LUSPA); Pln. Mohammed Munzamil (LUSPA); Pln. John S. Dogbey (GIZ); Pln. Valentine A. Anaba (GIZ); Pln. Kwaku Adjei Asante (GIZ); Arc. Joyce E. Kuusaana (GIZ); Naku Kwei Adama (GIZ); Aliu Aminu (GIZ); and Patrick A. Yeboah (GIZ).

Finally, to everyone who played a role in this important work, directly or indirectly, thank you for your contribution to advancing spatial planning and sustainable development in Ghana.

LIST OF ABBREVIATIONS

ABBREVIATION	MEANING
CSIR	Council for Scientific and Industrial Research
CWSA	Community Water and Sanitation Agency
DA	District Assembly
DACF	District Assembly Common Fund
DPCU	District Planning and Coordinating Unit
DSDF	District Spatial Development Framework
DSPC	District Spatial Planning Committee
DP	Development Partner
DVLA	Driver and Vehicle Licensing Authority
EPA	Environmental Protection Authority
GES	Ghana Education Service
GIDA	Ghana Irrigation Development Authority
GIFEC	Ghana Investment Fund for Electronic Communications
GIPC	Ghana Investment Promotion Centre
GIS	Geographic Information Systems
GoG	Government of Ghana
GPHA	Ghana Ports and Harbours Authority
GPSNP	Ghana Productive Safety Net Project
GRIDCO	Ghana Grid Company Limited
GTA	Ghana Tourism Authority
GWCL	Ghana Water Company Limited
KWMA	Kwahu West Municipal Assembly
LP	Local Plan
LUSPA	Land Use and Spatial Planning Authority
MDA	Ministries, Departments and Agencies
M&E	Monitoring and Evaluation

MiDA	Millenium Development Authority
MLGCRA	Ministry of Local Government, Chieftaincy and Religious Affairs
MMDA	Metropolitan, Municipal and District Assemblies
MOFA	Ministry of Food and Agriculture
MRD	Ministry of Railways Development
MRH	Ministry of Roads and Highways
MTDP	Medium Term Development Plan
MTTD	Moto Transport and Traffic Directorate
NABOCADO	Navrongo-Bolgatanga Catholic Diocesan Development Organisation
NADMO	National Disaster Management Organization
NGO	Non-Governmental Organization
NDPC	National Development Planning Commission
NDP	National Development Plan
NSDF	National Spatial Development Framework
OASL	Office of the Administrator of Stool Lands
POA	Programme Objectives and Activities
OHLGS	Office of the Head of Local Government Service
PPD	Physical Planning Department
PPP	Public- Private Partnership
RCC	Regional Coordinating Council
RSDF	Regional Spatial Development Framework
RSPC	Regional Spatial Planning Committee
SDF	Spatial Development Framework
SEA	Strategic Environmental Assessment
SMART	Specific, Measurable, Achievable and Timebound
SOCO Project	Gulf of Guinea Northern Regions Social Cohesion Project
SP	Structure Plan
SPC	Spatial Planning Committee
SWOT	Strengths, Weaknesses, Opportunities and Threats
TSC	Technical Sub Committee
UPN	Unique Parcel Numbers
VRA	Volta River Authority
WACA ResIP	West Africa Coastal Areas Resilience Investment Project
WATSAN	Water and Sanitation

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EXECUTIVE SUMMARY

This Revised Manual is a timely and practical response to Ghana's growing need for a more coordinated and participatory approach to spatial planning. As human settlement management become increasingly complex, the need for clear, consistent, and inclusive planning processes has never been more critical.

The Manual for Preparation of Spatial Plans was first developed in 2011, under the then Town and Country Planning Department to guide nationwide preparation of spatial plans. With the passage of the Land Use and Spatial Planning Act, 2016 (Act 925) and the Land Use and Spatial Planning Regulations, 2019 (L.I. 2384), it has become necessary to revise the Manual to align with these legal provisions. Furthermore, the Manual will ensure that the spatial planning documents reflect current development trends and serve as a practical guide for the preparation of spatial plans at all levels.

Among other functions, the Land Use and Spatial Planning Authority is mandated by the Land Use and Spatial Planning Act, 2016 (Act 925, Sec 4C) to provide directives, issue regulatory notices, guidelines and manuals to ensure compliance with Act 925. In view of this, the Authority initiated the review of the Manual through series of in-depth desk studies, technical reviews, stakeholder consultation and validation workshops.

The document serves as a comprehensive guide for the preparation of the three-tier spatial plans: Spatial Development Framework (SDF), Structure Plan (SP), and Local Plan (LP). It outlines the full planning cycle—from initiation through approval to monitoring and evaluation—emphasizing transparency, stakeholder involvement, and data-driven decision-making. The detailed steps for the preparation of each of the spatial plans are as follows:

1. Step One: Setting Up the Process
2. Step Two: Data Collection and Baseline Studies
3. Step Three: Situational Analysis, Opportunities and Challenges
4. Step Four: Vision, Goals and Objectives
5. Step Five: Development Scenarios and Selection of Preferred Option
6. Step Six: Strategic Environmental Assessment
7. Step Seven: Implementation Plan (Phasing, Financing and Investment)
8. Step Eight: Monitoring and Evaluation
9. Step Nine: Draft Final Spatial Plan for Stakeholder Consultation
10. Step Ten: Approval, Adoption and Dissemination of Spatial Plan

To ensure consistency and quality across all districts, the Revised Manual standardizes the ten (10) steps for preparing both new (greenfield) and existing (brownfield) spatial plans. While these steps are clearly defined, the manual also allows for flexibility in adapting to local realities, such as variations in data availability and collection timelines.

It emphasizes inclusive stakeholder engagement, requiring a minimum of three public consultation workshops during the planning process. This ensures that plans are not only technically sound but also reflect the needs and aspirations of stakeholders.

This document is designed to support local governments, planners and other built env professionals, academia, developers, traditional authorities, consultants, and development partners by promoting a shared understanding of the planning process. Ultimately, it aims to foster well-coordinated, inclusive, and sustainable development outcomes across Ghana.

In conclusion, the Revised Manual is organized into four main Sections - Section one focuses on the Background and purpose of spatial plans. Sections Two, Three and Four discusses the procedure for preparing each of the spatial plans.

SECTION ONE

BACKGROUND AND PURPOSE OF SPATIAL PLANS

1.0 Background

The Manual for Preparation of Spatial Plans was first developed in 2011, under the then Town and Country Planning Department to guide nationwide preparation of spatial plans. With the passage of the Land Use and Spatial Planning Act, 2016 (Act 925) and the Land Use and Spatial Planning Regulations, 2019 (LI 2384), it has become necessary to revise the Manual to align with these legal provisions. Furthermore, the Manual will ensure that the spatial planning documents reflect current development trends and serve as a practical guide for the preparation of spatial plans at all levels.

1.1 Legal and Institutional Framework

The review of the manual was guided by policies, laws and standards including the following:

- National Spatial Development Framework, 2015 – 2035;
- National Medium-Term Development Policy Framework (2022-2025);
- National Urban Policy (2012);
- Ghana National Climate Change Policy, 2013;
- National Environmental Policy, 2012;
- National Transport Policy, 2012;
- National Gender Policy, 2015;
- Land Use and Spatial Planning Act, 2016 (Act 925);
- Land Use and Spatial Planning Regulation, 2019 (L.I. 2384);
- Local Governance Act, 2016 (Act 936);
- Environmental Protection Act, 2025 (Act 1124) ;
- Lands Act, 2020 (Act 1036);
- National Development Planning System, 1994 (Act 480);
- National Development Planning Commission Act, 1994 (Act 479);
- Ghana Building Code, 2018;
- National Building Regulations, 2022 (L.I. 2465).

1.1.1 Land Use and Spatial Planning Act, 2016 (Act 925) and Land Use and Spatial Planning Regulations, 2019 (L.I. 2384)

Section 46 of Act 925 and Regulation 9 of L.I. 2384 establishes the framework for spatial planning in Ghana. The framework comprises the preparation of:

a. ***Spatial Development Framework*** for National, Sub-National, Regional and District levels including marine spaces where applicable;

b. ***Structure Plan*** for each district, part of a district or multiple districts; and

c. ***Local Plan*** for parts of a district or communities where physical development is taking place or proposed to take place.

Sec 4(c) of Act 925 mandates the Authority to provide directives, issue regulatory notices, guidelines and ***manuals*** to ensure compliance with the Act. Hence the preparation of this Revised Manual for the formulation of spatial plans in Ghana.

1.2 The Three-Tier Planning System

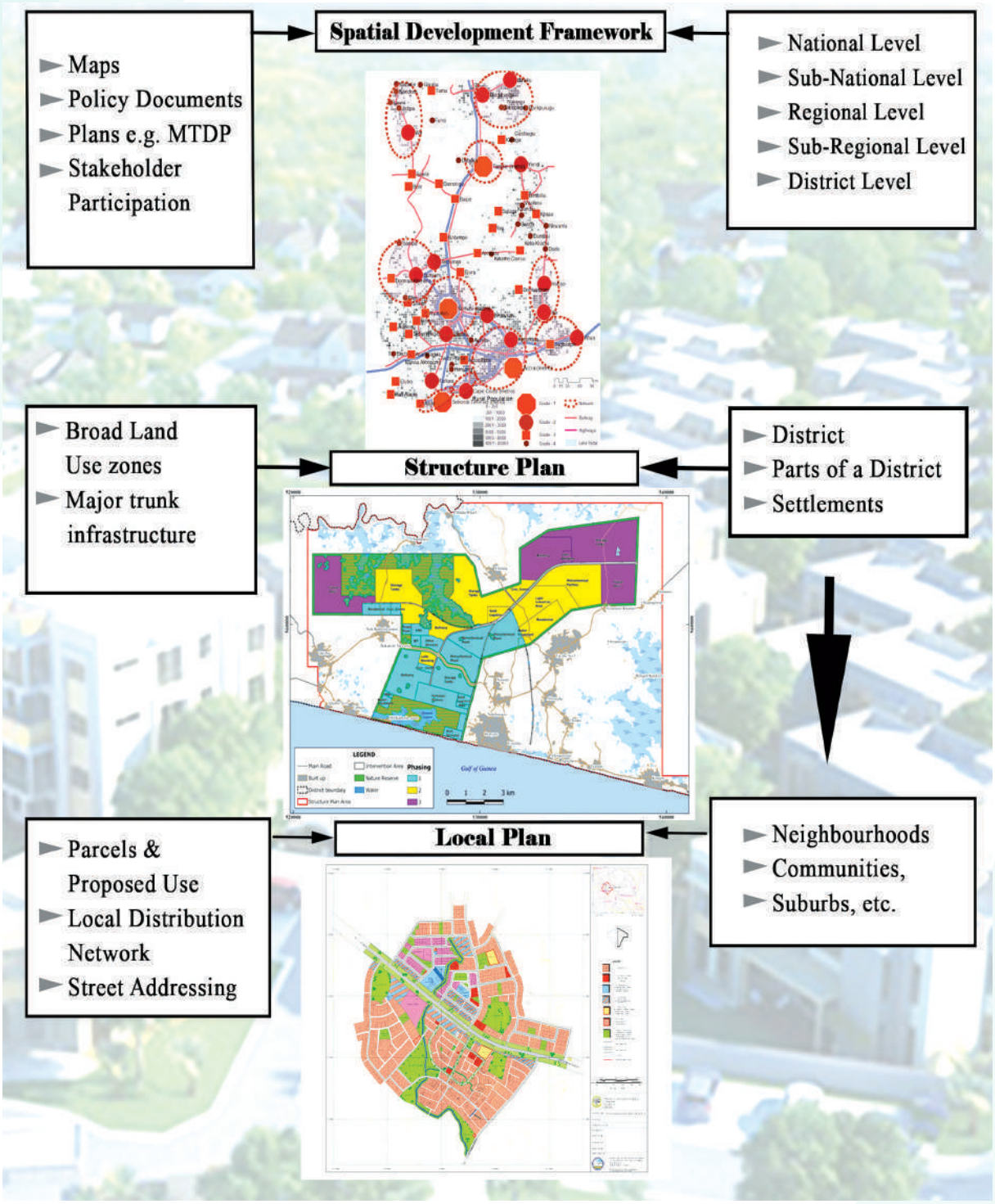
The spatial planning system in Ghana outlines the three-level hierarchy of plans known as the "Three Tier Planning System" (see Figure 1.1). The System establishes a direct link between national development strategies and their spatial application at regional and local levels, through a principle of 'chain of conformity', where a higher level plan serves as the basis for the preparation of the next level of plan. As such, each level of plan must also conform to the higher level of plan.

The Three-Tier Planning System is composed of three categories: Spatial Development Framework (SDF), Structure Plan (SP), and Local Plan (LP). The Three broad categories of spatial plans have a number of variations;

- Spatial Development Framework (SDF): Applied at national, regional and district levels, or at sub-regional level where district SDFs do not exist
- Structure Plan (SP): Applied to entire metropolitan, municipal or district areas- or to designated zones such as towns, rapidly urbanizing areas, or specific sectors within settlements.
- Local Plan (LP) : A Local Plan must be prepared for all development areas. MMDAs are required to prepare LPs for urban, peri-urban, and rural areas, establishing legally binding regulations on plot coverage, building types and heights, tree preservation, protection of heritage sites and historic structures, and landscaping requirements

The Land Use and Spatial Planning Authority is required to provide quality assurance for the preparation of spatial plans at all levels.

Figure 1.1: The Three Tier Spatial Planning System in Ghana



1.3 Purpose of Spatial Plans

The purpose of spatial plans in Ghana is to provide clear guidance on how land and space should be developed and used to benefit both present and future generations. These plans help to organize human settlements in an orderly manner. They are meant to ensure that land is judiciously used for residential, commercial, educational, industrial, open spaces, agricultural, civic and culture purposes. Spatial plans also enhance the protection of the environment, ensure coordinated infrastructure delivery (such as roads, water supply, and electricity supply) and minimizes the incidence of land disputes.

1.4 Steps in the Preparation of Spatial Plans (SDF, SP and LP)

The steps in the preparation of SDFs, SPs and LPs, is iterative and fundamentally hinges on stakeholder consultation at each step of the process. The steps, depending on the requirements, may include setting up the process; data collection and baseline studies; analysis of existing situation, challenges and opportunities; formulation of vision, goals, objectives and strategies; Development of Scenarios and selection of preferred scenario; Strategic Environmental Assessment; Implementation Plan (phasing, financing and investment); Monitoring and Evaluation Plan; Developing the Draft Final Plan; Approval, Adoption and Dissemination of Plans; and Review/revision of the plans as illustrated in Figure 1.2.

Figure 1.2: Conceptual Framework of Steps in Preparing Spatial Plans

SECTION TWO

PROCEDURE FOR PREPARATION OF SPATIAL DEVELOPMENT FRAMEWORK

2.0 Spatial Development Framework

2.1 Purpose and Levels of Spatial Development Framework (SDF)

An SDF is the spatial expression of social, economic, environmental or related policy at the national, sub-national, regional, sub-regional or district levels (refer to Table 2.1). It is an indicative plan that outlines strategies for achieving defined social, economic and environmental policies. It provides a strategic vision (desired future) for spatial development over a twenty (20) year period. The preparation of an SDF is an opportunity to revisit, refine, and build on the vision for Ghana's development at the various levels. It begins with agreement on the definition of core policy goals and objectives for land use and spatial development, from which the planning and resourcing of investment (natural resource utilization, infrastructure, services, human settlements and environment) are derived. An SDF provides a framework that highlights and responds to the spatial dimensions of socio-economic development. It seeks to guide the country's future development in ways that promote equitable distribution of the benefits of national progress across all human settlements.

It is subject to review and possible revision every four years, in line with the National Development Plan and Medium -term Development Plan.

Table 2.1: Levels of SDF

Level of SDF	Focus Area	Responsibility	Duration	Review Period
National SDF	covering the entire country including marine space, where the context requires	LUSPA	20 years	Every 4 years
Sub National SDF	covering two or more regions/ multi-regional	LUSPA		
Regional SDF	covering an entire administrative region	RCC		
Sub-Regional / Joint District SDF	covering parts of a region or two or more districts, where the context requires;	RCC		
District SDF	Covering the entire administrative District	District Assembly		

2.2 Contents of an SDF

The minimum content of an SDF should include:

- Background and justification for the preparation of the SDF;
- Vision, Goals, Objectives of the SDF;
- Description of the area;
- Key concerns and issues affecting the area;
- Sectoral analysis;
- Development options for the area;
- Sectoral development proposal;
- Strategic Environmental Assessment (SEA);
- Composite map of the proposals;
- Phasing and financing plan;
- Implementation plan;
- Monitoring and evaluation plan.

Based on the contents, it is clear that an SDF consists of a Report and a set of Maps

2.3 Steps in the Preparation of an SDF

The detailed steps in the preparation of an SDF has been summarized in Table 2.2.

Table 2.2: Summary of Steps in the Preparation of an SDF

Step	Activities	Expected Output
Step 1: Set Up the Process	• NSDF initiated by LUSPA, RSDF initiated by RCC (RSPC) and DSDF initiated by DA (SPC) • LUSPA/RSPC/TSC prepares detailed workplan (Expertise, timelines, equipment needed) and budget for the preparation on the SDF as an input for the Annual Action Plan. • Review relevant policy documents, programmes and projects • Undertake initial visit to the plan area • Prepare Inception Report (objectives, methodology, timelines, stakeholder mapping, etc) • Organize stakeholder engagement to present inception report	Approved Inception Report
Step 2: Undertake Data Collection	• Obtain basemap and other physical features (topography, relief, administrative boundaries, etc) • Undertake spatial and non-spatial data collection through surveys, interview guides, remote sensing, stakeholder consultations, etc • Compile and segregate datasets.	Baseline Report & Database (Geo Database).

Step	Activities	Expected Output
Step 3: Undertake Situational Analysis, and identify Development Challenges and Opportunities	• Conduct Data Cleaning and Validation where necessary • Prepare thematic maps with stakeholders • Analyse existing situation (Social, Economic, Spatial etc). • Highlight key issues, challenges and opportunities • Organize Stakeholder Validation Consultation to present the existing situation	Situational Analysis Report, Maps and Database
Step 4: Develop Vision, Goals and Objectives	• Formulate Vision, Goals, Objectives and strategies for the SDF with stakeholders	SDF Vision, Goals and Objectives
Step 5 : Develop Scenarios and Select Preferred Option	• Develop scenarios with stakeholders based on the vision of the SDF • Undertake SWOT analysis of each scenario • Organize stakeholder consultation to select a preferred option • Firm up preferred option • Identify Development proposals (including maps) for the preferred SDF	Draft SP prefered Option
Step 6: Prepare SEA	• Prepare Strategic Environmental Assessment (SEA) for the SDF • SEA process must commence at the start of the plan preparation process	SEA Report
Step 7: Prepare Implementation Plan (Phasing, Financing and Investment)	• Develop implementation plan (activities, implementing agencies, cost, funding sources, timeframe). • Align SDF activities with Medium term development plan • Align with NDPC guidelines for Medium-Term Plans.	Implementation Plan
Step 8: Prepare Monitoring & Evaluation Plan	• Develop M&E Plan to align with NDPC guidelines	M&E Plan
Step 9: Prepare Draft SDF Plan and present to stakeholders	• Prepare draft SDF with written report, maps, and development proposals. • present draft plan to stakeholders for final comments	Draft Final SDF

Step	Activities	Expected Output
Step 10: Approve, Adopt and Disseminate	• Submit Final Draft RSDF to LUSPA for quality control • Submit Final Draft DSDF to Secretariate of RSPC through the DCD for quality control • Submit Final Draft NSDF to President of the Republic for approval • Submit Final Draft RSDF to RCC for approval • Submit Final Draft DSDF to General Assembly for approval • Gazette and Publish approved SDF in national newspapers, public data room, etc • Disseminate SDF reports to relevant stakeholders using appropriate media	Approved and Gazetted SDF Report and Maps Published & Disseminated SDFs

2.4 Step One: Setting Up the Process

2.4.1 Initiation and Preparation of the SDF

An SDF is initiated and prepared by LUSPA at the national level, the Regional Coordinating Council (RSPC) at the regional level, and the District Assemblies (SPC) at the district level. Under the committee's (LUSPA, RSPC or DSPC) direction, an appointed consultant may also prepare the plan. Table 2.3 indicates the responsible bodies for initiating and preparing the SDF at the various levels of planning:

Table 2.3: Initiation of SDF at the Various Levels

Level of SDF	Responsibility	Lead Agency/Department
National SDF	LUSPA National in collaboration with NDPC	LUSPA National in collaboration with NDPC
Sub National SDF (Multi Regional)	LUSPA National	LUSPA National
Regional or Sub-Regional SDF	RCC	RSPC /LUSPA Regional
DSDF	DSPC	TSC/ PPD

2.4.2 Setting Up the Plan Preparation Team

At the national level, LUSPA initiates the preparation of the SDF; at the regional level, the RSPC takes responsibility; and at the district level, the TSC initiates the preparation of the SDF.

The RSPC members include:

- the Regional Minister;
- the regional head of LUSPA;
- the Regional Economic Planning Officer;
- the regional head of the Ghana National Fire Service;
- the regional head of the Lands Commission;
- the regional head of the Environmental Protection Agency;
- the regional head of the Ghana Highway Authority;
- a representative of the Regional House of Chiefs;
- the regional head of the National Disaster Management Organisation in the region;
- the regional head of the Ministry of Agriculture;
- the regional head of the Forestry Commission;
- the regional head of the Water Resources Commission;
- the Regional Coordinating Director; and
- a representative of utility services providers within the region.

At the District level, the Technical Sub Committee (TSC) shall be responsible for the preparation of the SDF, with the PPD facilitating the process. The TSC members include:

- the head of the Physical Planning Department of the district;
- the District Development Planning Officer;
- the head of the Works Department;
- the head of the Roads Unit of the District Assembly;
- the district head of the Disaster Prevention Department of the District Assembly;
- one representative of the Lands Commission in the District;
- one representative of the regional head of the Environmental Protection Authority (EPA);
- the District Fire Officer;
- the head of the District Health Department; and
- two co-opted members at least, one of whom is the chair.

2.4.3 Preparation of Work plan/Budget/Stakeholder Mapping/ Inception Report

The Plan Preparation Team is expected to detail the work plan and budget for the preparation of the SDF. Also, the Team is required to identify stakeholders that will directly or indirectly be affected by the SDF, for further consultations throughout the stages of the plan preparation process. An inception report indicating the objectives, methodology, timelines, stakeholder mapping, etc shall be prepared by the Planning Team.

2.4.4 Initial Visit to Plan Area

It is essential that the Planning Team responsible are familiar with the plan area regarding main infrastructure, size of plan area, settlements and communities. Field visits provide additional information on those likely to be affected by the plan. This will help the Planning Team establish networks with focal persons and indigenes for subsequent data collection.

2.4.5 Inception Workshop

SDFs must be prepared in consultation with relevant public and private institutions, and other stakeholders. This is the first stakeholder consultation with the aim of making the intent of preparing the SDF known to the stakeholders, as well as present an inception report to the stakeholders. At this point, the Planning Team may request their support and commitment throughout the plan preparation process. The following may be considered:

- identified stakeholders and invite to a stakeholder meeting;
- Select appropriate venue for the engagement if it involves two or three districts;
- Consider the use of local language as a means of communication, where applicable.

2.5 Step Two: Data Collection

2.5.1 Data Collection

Data from all relevant sectors - social, economic, cultural, environmental, and others - is essential for preparing the SDF. In view of the fact that such data is sourced from multiple institutions, strong collaboration is required. Where necessary, funding or resources should be allocated for data acquisition. Importantly, the process should begin even if there are data gaps. Such gaps can be filled during future revisions, since the SDF is updated every four years.

2.5.1.1 Mapping of Spatial Data

When preparing the SDF, it is necessary to generate spatial data to describe the characteristics of the planning area. With the help of orthophotos and other open source data, the Planning Team is required to prepare a base map for the planning area. The list provided below may be varied according to the circumstances at the National, Regional or District level):

- **Characteristic 1: Physical and Natural Environmental Characteristics** of the Planning Area: digital elevation models, contours, water bodies, soil, climate.
- **Characteristic 2: Natural Protected Areas:** parks, reserves, drainage, flooding and seismic risk areas, degraded areas and hazards etc.
- **Characteristic 3: Population and Human Settlement characteristics:** population dynamics and population density; spatial structure, sizes and functions of human settlements, including hierarchy of human settlements, gender, ethnicity, tribal areas and language, tradition and religion, historic sites and culture, projected population of settlements, migration and development trends.
- **Characteristic 4: Economic activity:** Agriculture, Industry, Commerce, Services, Tourism, Employment, Local Economic Development, etc.

- **Characteristic 5: Social Development** – health, poverty, education, gender, conditions, accessibility and availability of facilities.
- **Characteristic 6: Infrastructure:**
    - Road Infrastructure: types of road network and hierarchy, conditions of the road, length of roads, rail
    - Public Transport: location of transport terminals,
    - Air Transport: location of airport and airstrip and amenities
    - Water Transport: location of harbour, landing sites, etc.
    - Water Supply: Types of water infrastructure and accessibility
    - Sanitation (Solid Waste, Sewerage and Storm Water): Types of Sanitation facilities and accessibility in the planned area
    - Energy: Energy for cooking and Energy for lighting- Distribution of main lines, Location and accessibility
    - ICT and Communication: communication installations and accessibility
- **Characteristic 7: Population / Settlement Access to Facilities:** Access to primary education facility, secondary education facility, medical facilities, food market, improved water source, safe sanitation, improved waste disposal, electricity, public transport.
- **Characteristic 8: Governance and Security:** Police service, military bases, fire service, prison service, immigration service, private security organisations, etc. Central and Local Government entities such as MDAs, MMDAs, Area Councils and Unit Committees. Civil Society Organisations, Faith Based Organizations, NGOs, Traditional Authorities etc.

2.5.2 Data Requirements for SDF

Data collection should be prioritized so that appropriate data necessary for identifying, analyzing and discussing relevant spatial issues can be collected. The data collection should be coordinated with other relevant agencies using their data where it exists. A list of "data required" is illustrated in Tables 2.4 and 2.5 below. Some social and economic data may be mapped by referring to the 'enumeration areas' which have been used for collecting it. The National Census will be a principal data source for this.

Table 2.4: Physical Data and Sources

No.	Layer: Data Required	Data Source	Comments
1	Base Map showing: Topography/ relief, Soil, Administrative Boundaries Existing Roads Railway lines Canals, main rivers and lakes Coast line Power transmission lines Existing development (Built areas)	Institutional sources (eg. Survey and Mapping Division of Lands Commission) recognised sources	

No.	Layer: Data Required	Data Source	Comments
2	**Existing Land Use** showing ▪ Industrial Areas (broken down by heavy and light) ▪ Commercial areas ▪ Housing by high, low and medium density ▪ Warehousing ▪ Offices ▪ Areas of mixed land use (by type of mix) ▪ Major institutional users (educational, health, religious etc) ▪ Military and Police complexes including barracks ▪ Public cemeteries ▪ Major recreational areas (sports fields, stadia, parks, ▪ camping grounds etc.) ▪ Agricultural areas (crop farming, plantations, agric ▪ processing industry ▪ Forest areas including Reserves and timber plantations ▪ Historic and cultural sites ▪ Ports, terminals and related shipping, and air uses ▪ Water treatment plant sites ▪ Sewage Treatment sites ▪ Final disposal sites for solid waste including land fill ▪ Mining activities areas ▪ Core Agriculture Production Areas ▪ SPA attractions	Satellite and aerial photography/ orthophotos. Field survey Ministries, Departments and Agencies Water and Electricity Companies Minerals Commission Ghana Airports Company Limited Ghana Ports and Harbour Authority	Principal dedicated land uses (e.g. residential, industrial, commercial and mixed use areas); roads, rivers and other natural boundaries should be mapped on separate layers. Built up areas should, indicate density. E.g. where development appears random and scattered, it may be classified as 'low density.'

No.	Layer: Data Required	Data Source	Comments
3	**Transportation** Road Network – Existing and approved (planned)main roads Rail Transport Air Transport Water Transport Public Transport Non-motorized Transport Conditions of Transport Infrastructure	Ghana Highways Authority, Dept of Urban Roads, Department of Feeder Roads Ghana Railway Authority, Railway Development Authority, Ghana Airport Company Limited, Ghana Civil Aviation Authority, Ghana Maritime Authority, GPHA, VRA, Transport Unions Satellite and aerial photography. Field survey	Road hierarchy should be indicated such as: National highway, Regional Road, District Road, Urban and Feeder Roads Paved road or unpaved roads if relevant at this level of plan
4	**Drainage: Main Water Bodies and Tributaries**	Satellite and aerial photography. Field survey Works Department Ghana Geological Survey Authority	Capacity and condition should be indicated where possible
5	**Drinking Water Network – Primary Distribution Network** – with any approved extensions	Ghana Water Company and Contractors, Community Water and Sanitation Agency, Small Town Water Systems, Water Resources Commission	Water treatment plant, water tanks and primary distribution. Later on pipe size of trunk lines should be indicated and where available the condition of the pipes. The text should explain further for each part of the system
6	**Sewerage System Network** – primary network with identification of location of future treatment plants	Works Department, Environmental Health, Urban Roads	Sewage disposal systems exist in very few places in Ghana, identify future potential locations for treatment plants

No.	Layer: Data Required	Data Source	Comments
7	**Electricity Supply Network**	Survey and Mapping Electricity Company Ghana and other Power Authorities (GRIDCO, VRA)	Main distribution network classified by capacity
8	**Optic Fibre Cables.**	Ministry of Communication, Digital Technology and Innovation, National Communication Authority, Ghana Chamber of Communication, GIFEC, Tele Communication Companies,	Spot reference only
9	**High Risk Zones and Slope Analysis** Seismic fault lines, areas of unusable slopes and those which are threatened by unstable slopes above them	Department of Geology; contour maps (Row 1 above)	Capacity and condition should be indicated where possible
10	**Land Evaluation (Based on Soil Suitability Analysis):** ▪ Existing areas of high Agricultural productivity ▪ Areas with high productivity potential for agriculture Areas with other particular problem or suitability	Agricultural Department, CSIR (Soil Research Institute)	Identify suitability of land for different agricultural uses and the potential of agricultural land yet to be exploited.
11	**Flood Prone Areas**	NADMO, Ghana Hydrological Authority, MMDAs Satellite and aerial photography.	Note frequency and severity and projected trends
12	**Major Areas of Ecological Importance and Sensitivity Including Forest Reserves**	EPA, Forestry Commission, Forest Research Institute	The outer limits of areas where the flora and fauna include species identified as being under threat in the Country

Table 2.5: Quantitative Data and Sources

No.	Data Required	Data Source	Comments
1	**Population data** ▪ Population by different census districts ▪ Population growth and distribution ▪ Spatial structure ▪ Sizes and functions of human settlements, ▪ including hierarchy of human settlements ▪ Age pyramid for each sex ▪ Gender Dynamics ▪ Population projections ▪ Household size ▪ Household size projections ▪ School age children ▪ Historical population trends ▪ Urbanization (rural-urban continuum) ▪ Settlement distribution ▪ Productive population ▪ Migration trends ▪ Population density	Ghana Statistical Service MMDA-DPCU Academic and Research Institutions	The data on population should be collected from GSS and validated at the national, regional and District levels in line with the planning year.
2	**Employment data** ▪ Employment by sector ▪ Employment projections ▪ Location of Employment ▪ Gender Dynamics	Ghana Statistical Service MMDA-DPCU Labour Department	Different types of employment have different space needs. This applies predominantly to factories and warehousing
3	**Housing** ▪ Actual average occupancy (households/per unit/ compound) ▪ Preferred occupancy (households/per unit/ compound) ▪ Projection of housing demand in various locations taking into account present shortage, housing condition and growth ▪ Land requirement for housing in various Location Housing Density Gender Dynamics	Census Ghana Statistical Service District Development Planning Office Survey	Generally household sizes are diminishing, so the existing supply of housing land may be inadequate even in the case of zero population growth. Land projections should take into account need for about 30 percent more land than what is actually occupied for the market to work

No.	Data Required	Data Source	Comments
4	**Economic Space including markets, offices, informal sector etc.** **Economy by sector (Industry, Service, Commerce, Agriculture)** ▪ Present main commercial locations Analysis of types of commercial activity and the relative efficiency of the use of the land where presently located ▪ Use of offices presently available ▪ Projected additional office space ▪ Interpret into overall land required ▪ Gender Dynamics	Surveys MMDAs (Development Planning Office). Market tax account Satellite and aerial photography. MTDP, Ghana Statistical Service, GIPC, Ghana Revenue Authority, Ghana Chamber of Commerce, Association of Ghana Industries	While such surveys have not been carried out, much of this will need to be collected from organisations representing the commercial sector and market vendors.
5	**Educational facilities** ▪ Capacity of existing, in particular Senior Secondary Schools (SSS) and Higher Education institutions. ▪ Based on population projections, need for additional schools ▪ Plans for expansion of existing SSS and tertiary educational institutes ▪ Plans for location of Tertiary Educational Institutes Gender Dynamics	Ministry of Education, Ghana Education Service, Survey of schools, Universities and other educational facilities such as vocational training centres etc	The main concern is for the land requirement for Senior Secondary Schools and tertiary educational institutes, which tend to be substantial land users. Schools provided to serve just the local community (primary schools and kindergartens) are part of the residential areas and not identified at this level of planning. Both public and private facilities shall be included.
6	**Health Facilities** ▪ Plans for extension or new hospital or ▪ other major health-related facility (Polyclinic, ▪ Hospital). ▪ Implications for land requirement ▪ Gender Dynamics	Ministry of Health, Ghana Health Service, Regional and District Departments of Health, Health Agencies	The objective is to find out whether additional land should be identified for new medical facilities, outside of existing hospital grounds. This does not include small clinics that are part of areas of housing or commercial development. Both public and private facilities shall be included.

No.	Data Required	Data Source	Comments
7	**Tourists/Visitors** ▪ Number of Traditional Palaces, shrines, village settings, sacred groves, eco-tourist sites, other historic sites ▪ Number of tourists and outside visitors visiting area over the ▪ past five years ▪ Projected growth in Tourists/outside visitors ▪ Type of tourists/visitors ▪ Projections of hotel accommodation and ▪ type of accommodation required ▪ Projections of overall land requirements ▪ Identification of potential tourist areas ▪ Gender Dynamics	Ministry of Tourism, Ghana Tourism Authority, Ghana Tourism Development Company, MMDA-DPCU, Local Hotels Local Tourist Agencies and Associations	This may be of greater importance in some locations than others. With tourism, the analysis of suitable locations for high income tourists will involve identification of land near to beaches, or water fronts or with views of areas of outstanding natural beauty, etc.
8	**Religious Facilities** ▪ Proposals for development of seminaries, mosques, convents, monasteries Gender Dynamics	MLGCRA, Ghana Statistical Service, Religious Associations, MMDAs, Registrar General, Survey of religious leaders	
9	**Administrative Developments** ▪ Plans for new or extension to Government offices ▪ Land requirements outside existing compounds etc. ▪ Gender Dynamics	District Assembly, RCC, Government agencies	
10	**Open Space/Town Parks** ▪ Population forecasts ▪ Open Space requirements ▪ Gender Dynamics	PPD, Department of Parks and Gardens	This does not include local open space and recreation areas that are required as part of the standards for a residential or commercial area, but to other large parks and playing fields

No.	Data Required	Data Source	Comments
11	**Traffic Analysis** ▪ Analysis of traffic flows at different times of day and in each direction, ▪ Projected traffic flows for period of plan ▪ Projected road sizes (and hence need to upgrade or develop new roads)	Ministry of Transport, Department of Urban Roads, , Highway Authority, Research Institutions and academia, MTTD – Police Service, Transport Unions, DVLA, MMDAs, Traffic Surveys,	
12	**Income data.** Household income Gender Dynamics	MMDAs- DPCU, Ministry of Gender, Children and Social Protection (Ghana Household Registry), GSS, Family income and expenditure surveys	This can help determine the affordability of different forms of housing and hence land requirements.

2.6 Step Three: Situational Analysis, Development Challenges and Opportunities

2.6.1 Analysis of Existing Situation

The existing situation depicts the prevailing conditions or status of all sectors which need to be assessed and summarized in a Situational Analysis Report. The activity is required to be done by the Planning Team together with stakeholders identified. The sectors to be considered include:

- Population (population growth and distribution, projections, rural and urban settlement patterns,)
- Environment and Biodiversity / Land Cover (status and trends, mineral resources, ecological zones, types and conditions, protected areas, natural and built heritage assets)
- Climate Change (causes, trends, forecasts, mitigation measures, spatial impacts, etc)
- Social Development (education, health, housing, gender)
    - housing conditions (dwelling types, conditions, housing density, occupancy, tenure status, housing delivery)
    - Health (categories, conditions and accessibility of health facilities and their spatial distribution)
    - Education (Categories, condition and accessibility of educational facilities, enrolment levels, etc)

- Security (Identification of security agencies, their locations and their roles
- Gender (discuss attempts to mainstream gender in land use planning)

- Infrastructure
  - Transportation (determine the length, conditions and accessibility of transport facilities such as road, public transport, railway, ports, landing sites, airports)
  - Energy:
    (i) lighting- Electricity-determine the high- and low-tension lines, location, no. and capacity of transformers, and the use renewable energy
    (ii) cooking: Types and availability of the energy
  - Sewerage and Sanitation (solid and liquid waste (sewerage) disposal, condition and accessibility of the facilities)
  - Water Supply Infrastructure (sources of water supply, conditions, demand distribution and storage)
  - Telecommunication Systems (Available telecommunication networks, communication centers and their locations)

- Economic Development (employment, poverty, formal and informal sectors)
  - Agriculture (food crop production, cash crop, livestock and poultry production, aquaculture, agribusiness)
  - Industry and manufacturing
  - Commerce and Services
  - Tourism
  - Local Economic Development

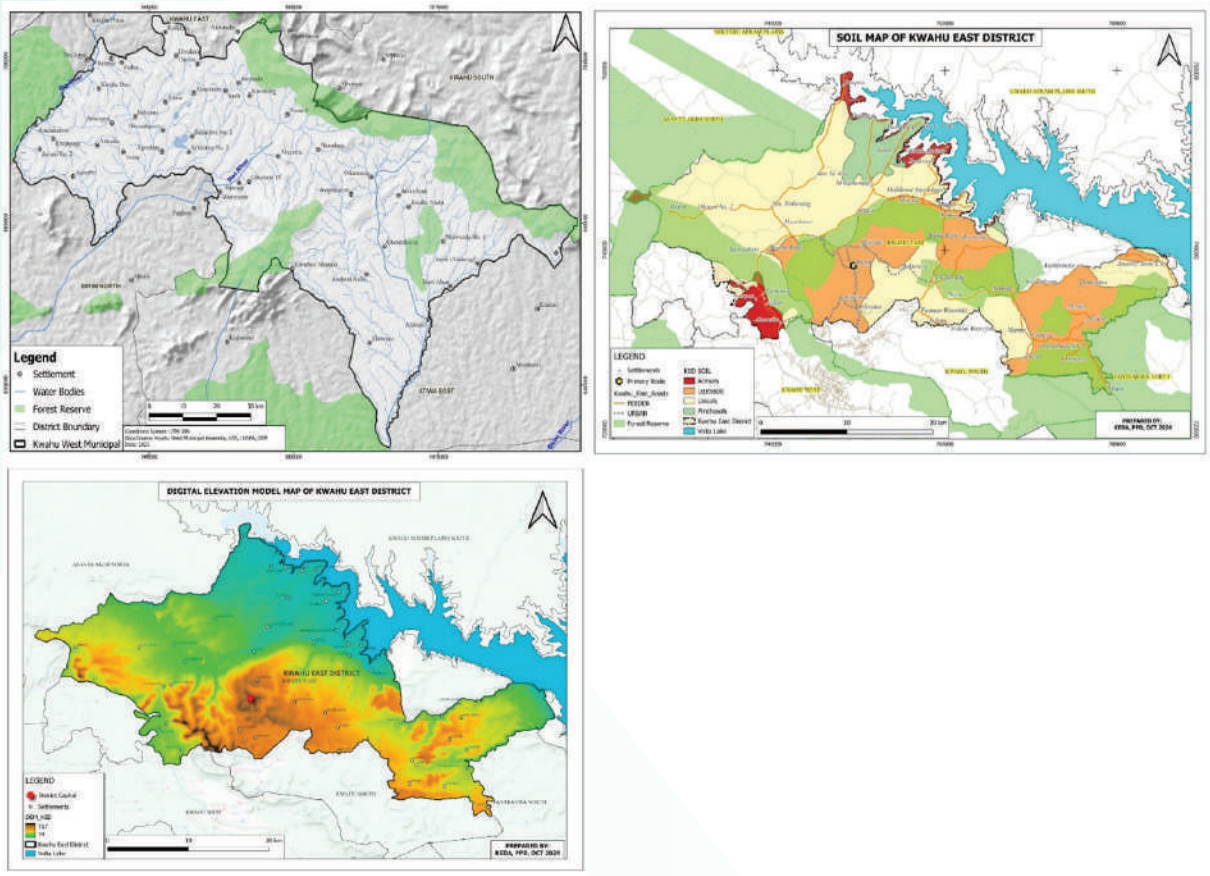
The following may guide the analysis of the existing situation:

- Factor in data gathered from all sources including policy documents, MTDPs and primary data from the field in relation to the plan area on social, economic, demographic and spatial issues
- Clean and assess spatial data to reflect the factual existing situation, key issues/ challenges and opportunities within the plan area.
- Consider the initial mapping outputs, identify development issues/problems, needs and opportunities, and policy goals.
- Display outcome of analysis in text, diagrams, charts, graphs, pictures, maps, etc.
- Generate thematic maps for each sector (education, housing, health, human settlement, relief, drainage, etc).

2.6.1.1 Spatial Data Analysis

When preparing the SDF, it will be necessary to use different spatial datasets (refer to the 8 dataset characteristics under step 2) to perform several geospatial analysis that will inform decisions about land use, environmental protection, socio-economic development and infrastructural investment and development. This will help prioritize areas for intervention, propose spatial strategies (nodes, corridors, zones) for growth, environmental protection, or regeneration and support sustainable and integrated development.

Figure 2.1: Sample Maps (Drainage, Soil and Elevation)



2.6.2 Stakeholder Validation

The Draft Situational Analysis Report, which is also the key deliverable at this stage of the process, will serve as the basis for presenting data and analysis to stakeholders for their validation and endorsement for the next stage of the process. Following stakeholder validation of the findings, the draft may be formally published. The following may be considered in the stakeholder validation activity:

- Invite key stakeholders that have much knowledge and interest in the planning area
- Present the Draft Situational Analysis (which contains analysis of data gathered from the plan area) to the stakeholders
- Adopt appropriate tools for consultation (eg. syndicate group discussions).
- Use simple terms and language

2.7 Step Four: Vision, Goals, Objectives and Strategies

2.7.1 Vision

The Spatial Vision should be developed from the overarching spatial concept and inform the proposals for the SDF. In formulating spatial vision, goals, objectives and strategies for the SDF, the Planning Team must do so with stakeholders. The following should be considered. The vision should:

- articulate the spatial aspirations for the future development of the planning area;
- be a broad statement expressing the desired pattern and growth;
- be memorable, highlighting the uniqueness of the planning area while consolidating its development strengths and opportunities;
- be holistic, comprehensive and integrated, encompassing spatial, economic, and environmental dimensions;
- remain realistic and sustainable.

The Vision for the SDF should also be guided by the following documents:

NSDF/Sub National SDF -	National Development Plan and National Medium-Term Development Framework, National Infrastructure Plan
RSDF/ Joint District SDF -	National Spatial Development Framework, Regional Integrated Plan, and Harmonized Medium- Term Development Framework
DSDF -	Regional Spatial Development Framework, Regional Integrated Plan, Medium-Term Development Plan

Examples of Vision Statements at the SDF level include:

- "By 2036 the Ashanti Region will be a leading hub in Ghana and the Sub Region for economic activities, where people enjoy a high quality of life within a healthy, inclusive and sustainable physical, socio-economic and cultural environment"
- "A leading Commercial Hub of the Atiwa East District within a sustainable environment"

2.7.2 Goals

The formulation of goals for the SDF should seek to actualize the spatial vision of the planning area. The following should guide goal development:

- Broad Goals from national, regional policies and District Medium Term Development Plans should inform the formulation of strategic goals
- Strategic goals should be comprehensive and cross-sectoral, directly contributing to the realization of the vision.

  Example of an SDF Goal: *"Create equitable and accessible social services for all people"*

2.7.3 Objectives of the SDF

The following should guide the formulation of objectives of the SDF. The objectives should:

- focus on actualizing the strategic goals formulated.
- specify the activities and strategies needed to attain them.
- address key issues, development challenges, and identified opportunities.
- operationalize the strategic goals within the SDF timeframe.
- be SMART (Specific, Measurable, Achievable, Realistic, and Time-bound).

An example of an SDF Objective is "*to improve accessibility to healthcare services in the planning area by 2027*".

Table 2.6: Framework for Developing the Vision, Goals and Objectives

Component	Description	Guiding Principles	Example
Vision	challenges and opportunities and directs proposed interventions.	- Clearly define the desired future spatial development of the planning area. - Broadly set out expected growth patterns and spatial development trajectory. - Clear, inspiring, and reflective of the area's uniqueness, strengths, and opportunities. - Aligned with Regional or Sub-National Spatial Development Frameworks. - Holistic, integrating spatial, economic, social, and environmental dimensions. - Realistic, achievable, and sustainable.	'ensuring orderly spatial development and sustainable environmental management."
Goals	Broad strategic directions that translate the vision into overarching sector-wide ambitions. They guide policy, investment, and development actions.	- Drawn from National, Regional, and District policy frameworks (e.g., MTDPs). - Comprehensive and cross-sectoral. - Directly linked to the realization of the vision.	"To enhance the competitiveness of Ghana's oil and gas industry through sustainable industrial development."

Component	Description	Guiding Principles	Example
Objectives	Specific, measurable targets and actions derived from the strategic goals. They address identified issues and guide implementation within the plan period.	- Derived from strategic goals. - Address key issues, challenges, and opportunities. - Time-bound and aligned with the Structure Plan's implementation period. - SMART (Specific, Measurable, Achievable, Realistic, Time-bound).	"To create an enabling environment to attract domestic and foreign investments into the oil and gas industry through fiscal and non-fiscal measures."

2.8 Step Five: Development of Scenarios and Selection of Preferred Option

2.8.1 Scenario Development

Scenario development is an ideation process that explores multiple existing and future land-use proposals designed to advance the goals of the SDF. It allows the Planning Team to share with stakeholders their perspectives on spatial, land-use, and development options. Scenarios are not forecasts or predictions but tools to connect spatial planning with community needs and aspirations. They illustrate possible future activities based on current conditions, emerging trends, or regional goals and community values. Scenario development shall be done by the Planning Team with stakeholders.

2.8.2 Guiding Principles

The development of guiding principles is informed by the client's brief, current policy documents and proposals, the comments arising from the stakeholder consultations and the Planners' own experience. The guiding principles will serve as the course of action for future development. They may stand alone or be incorporated in the relevant section of the proposal. The aim of the guiding principles is to make the plan sustainable.

2.8.3 Developing the SDF Scenarios

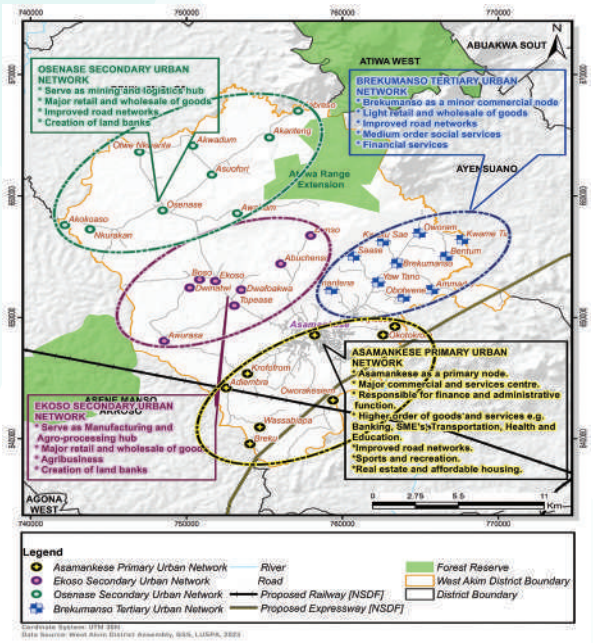
In developing different scenarios to guide the spatial development, the TSC together with stakeholders shall prepare a minimum of two implementable and sustainable scenarios. The following factors should be considered:

- Incorporate the existing situation, vision, goals and objectives to inform the designing of the scenarios;
- Ensure alignment with existing national, regional or district policies, development perspectives and proposals;
- Clearly describe each scenario, underpinning principles and its proposed spatial development pattern;

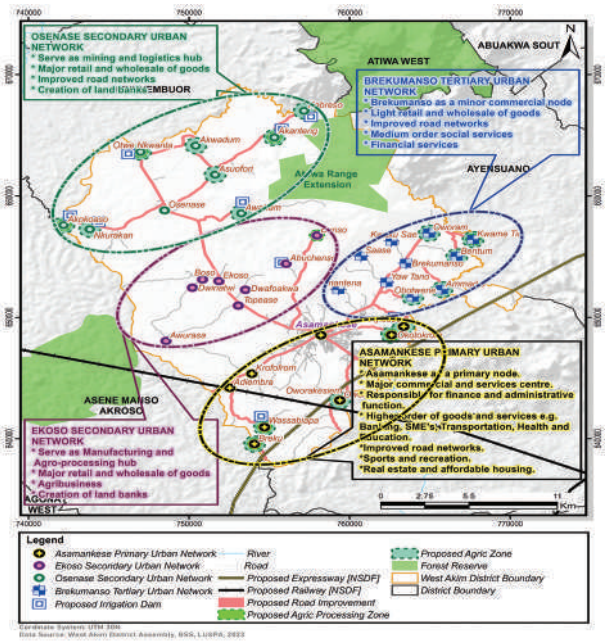
- Establish objectives to guide each scenario;
- Identify the unique features and proposed interventions of each scenario; Highlight the strengths and weaknesses of each scenario for comparative assessment.

Figure 2.2: Example of Scenarios

Scenario 1



Scenario 2



2.8.4 Stakeholder Consultation to Select Preferred Option

The formulated vision, goals and objectives for the SDF together with the proposed scenarios shall be presented to stakeholders for their inputs and preferred scenario. The following may be considered:

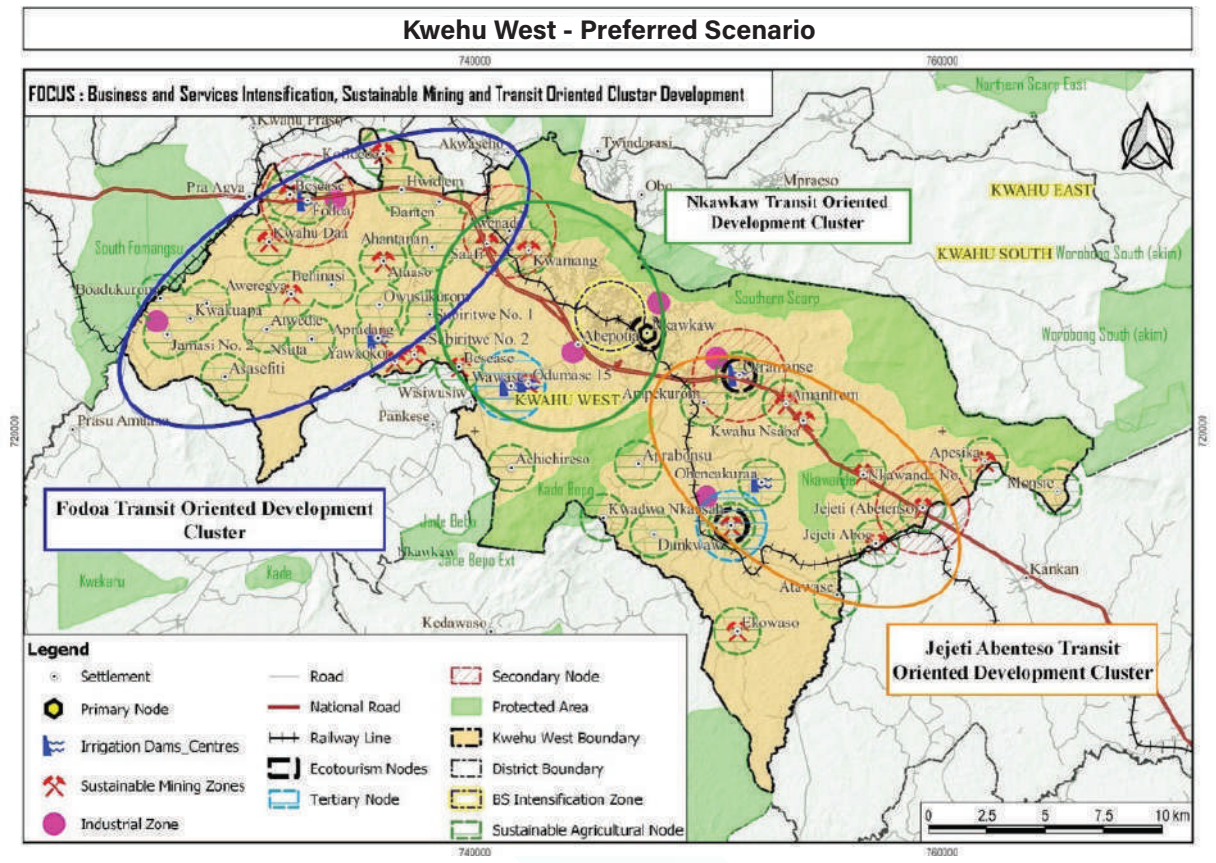
- Group stakeholders to allow in-depth understanding of each scenario
- Allow stakeholders to make their informed decision/choice

2.8.5 Firming up the Preferred Option / Development Proposals

The Planning Team should prepare the First Draft Proposals by systematically reviewing the SDF elements, incorporating consultation outcomes, and design proposals for the SDF.
By this means, the spatial plan will emerge as a diagram in which all elements are integrated into an overarching spatial strategy. At this stage, the Planning Team applies technical expertise to design the preferred option and way forward. The following may be considered:

- Describe the strengths and weaknesses of the preferred scenario;
- Justify the selection of the preferred scenario;
- Identify opportunities for the preparation of lower level spatial plans;
- Describe development proposals for each sector.

Figure 2.3: Example of a Preferred Option



2.9 Step Six: Strategic Environmental Assessment (SEA)

2.9.1 SEA for the SDF

The Strategic Environmental Assessment (SEA) is a sustainability- focused process designed to consider the environmental, economic, social, cultural and intergenerational consequences and potential benefits of a plan. SEA aims to ensure that the environmental impacts are taken into account at the earliest possible stage of decision-making. It identifies, analyses and evaluates the environmental impacts of regional planning and sectoral plans as well as planning alternatives. The Strategic Environmental Assessment (SEA) process must be initiated at the commencement of the Spatial Development Framework (SDF) preparation. The preparation of the SEA shall be guided by the Land Use and Spatial Planning Act, 2016 (Act 925) and shall comply with the Strategic Environmental Assessment Guidelines issued by the Environmental Protection Authority (EPA).

2.10 Step Seven: Implementation Plan (Phasing, Financing and Investment)

2.10.1 Action Plan

In order to implement the SDF, the necessary activities must be identified based on the proposals outlined under the Draft SDF. The consequent list of activities can then be structured within phased plan periods. This process makes the SDF practical and attainable by establishing clear and realistic timelines. It also defines the responsible agencies for implementation (lead and collaborator), cost, source of funds and the timelines.

❖ **Developing Key Actions**

In developing key actions from the SDF proposals, the following issues need to be considered:

- Identify key actions in the proposals for each sector;
- Describe identified key actions for each sector that can be implementable;
- Identify priority actions for each sector;
- Identify the potential sources of funding for implementation of the actions/activities within the lifespan of the SDF.

❖ **Estimated Cost of Actions/Activities**

The activities developed should be costed and the following should be considered:

- Every action should be costed or budgeted if possible;
- The estimated cost for each of the identified actions should be realistic even though it may not be accurate;
- All the potential sources of funding for the implementation of the actions should be identified;
- Estimated costs for the identified actions/activities should be done in United States Dollars to cover for any inflation and depreciation of the local currency;
- High-Cost actions such as capital investment projects should be reserved for long-term phasing;
- Low and medium cost actions should be reserved for short to medium term phasing.

2.10.2 Phasing

The action plan should be phased into four-year cycle to enable the proposals to be factored into the MTDP. The following should be considered;

- The activities for the sectors should be phased for the 20-year lifespan of the SDF;
- Each phase should have a timeline (4year cycle) reflecting the order of priority of the identified actions;
- Each phase should have a time frame and an estimated cost;
- The phasing can be categorized as short, medium and long term.

Table 2.7: Example of Programme of Action

Programme	Activity Lead	Implementing Institution Phase 1 Phase 2		Timeframe					Est. Cost (GHC)	Sources of Funding
				Phase 3	Phase 4	Phase 5				
		Collabora-tors	2025-2028	2029-2032	2033-2036	2037-2040	2040-2044			
		Agriculture								
Adopt Climate Resilient agricultural technologies in the district	Construct Agricultural Mechanization Service Centres to boost agroproduction at Fumbisi, Gbedembilisi & Wiesi	Builsa South District	MDAs: MOFA, OHLGS & MLGCRA						180,000.00	GoG, SOCO, DACF, & Donor Funding
	Train 200 youth in basic maintenance of corn mills, beekeeping, Poultry farming, Rabbit Rearing, Fish farming, and Pig Rearing at Dalaasa, Donninga, & Bachongsa	Builsa South District	Development Partners: World Vision MDAs: Ghana Enterprises Agency, MOFA, OHLGS & MLGCRA						10,00000	GoG, SOCO, DACF, & Donor Funding
	Construct 3No. dams at Fumbisi, Gbedema, and Donninga	Builsa South District	MDAs: GIDA, MOFA, OHLGS & MLGCRA						182,000.00	GoG, GPSNP & Donor Funding
	Sensitize/educate farmers on climate-smart agriculture and other available agricultural technologies at Fumbisi, Gbedema, Kalaasa, Gbedembilisi, Chansa, Kanjarga, Uwasi and Donninga	Builsa South District	Development Partners: NABOCADO MDAs: MOFA, OHLGS & MLGCRA						10,000.00	GoG, DACF, & Donor Funding

2.10.3 Implementation Plan

The implementation plan for the SDF proposals shall be prepared in phases. This should serve as a guide for the spatial proposals in the Medium-Term Development Plans. In developing the implementation plan, there is the need to identify the following:

- lead organisation(s) responsible for securing funding and leading the implementation of the plan;
- potential options for capital investment financing and how operations and maintenance for assets will be financed;
- priority actions and activities for each sector;
- potential sources of funds for implementation of the proposals within the lifespan of the SDF;
- proposals that will involve investment in the creation of assets (roads, buildings, forests, land acquisition, major equipment, etc.);
- proposals that will be implemented as a "project" or as a group of similar investments;
- priority investments/projects or activities;
- proposals/actions which should be phased to cover the lifespan of the SDF;
- costing of proposals/actions which should be realistic and feasible within the lifespan of the plan.

2.11 Step Eight: Monitoring and Evaluation Plan

2.11.1 Monitoring and Evaluating SDF Implementation

The SDF should have a Monitoring and Evaluation Framework to measure the level of implementation and impacts of the SDF. To monitor and evaluate the implementation and performance of the SDF, it is necessary to identify the SDF's goals, objectives, activities and inputs required for implementation. Subsequently indicators must be developed to reflect these goals and objectives to be achieved. Monitoring serves as a management tool enabling the responsible authorities to record, check and correct the implementation process of spatial planning at the three levels of the planning system.

Monitoring and evaluation shall follow the guidelines stipulated by the NDPC for the SDF. Monitoring can be reported on a monthly, quarterly, semi-annually and annual basis and will, as far as possible involve relevant agencies and existing data collection systems (Minutes of meetings, Meeting agendas, Departmental reports, physical inspection, etc.).

Table 2.8: Example of Monitoring Matrix (Medium Term, 6-10 Years)

Goal: Promote sustainable and harmonious development of human settlements **Linked Objective:** Facilitate the implementation of the Faecal Sludge Management Project and improve upon storm water infrastructure										
Activity: Create two (2) retention ponds in the municipal capital to absorb run-offs										
Indicators	**Indicator Definition**	**Indicator Type**	**Baseline 2024**	**Target Years**				**Disaggregation**	**Monitoring Frequency**	**Responsibility**
				2025	**2026**	**2027**	**2028**			
Number of retention ponds created	Measures the number of retention ponds created	Output	0	0	0	0	0	- Nkawkaw	Annually	KWMA
Goal: Forster the necessary conditions for the local economy to thrive, propel growth and provide sustainable employment opportunities **Linked Objective:** Facilitate the establishment of 10 local manufacturing industries by 2045										
Action: Facilitate the establishment of a chicken processing factory at Oframase to boost the poultry industry										
Percentage of construction attained	Measures the percentage of construction attained	Process	10	10	20	20	20	- Oframase	Annually	PPP
Action: Liaise with stakeholders to develop existing tourist sites to modern standards (Asuboni No. 3 Waterfall, Ancient Artefacts, and Nkawkaw-kuma Cave)										
Number of tourist sites developed	Measures the number of tourist sites developed	Output	0	0	0	0	1	- Waterfall - Ancient artefact - Cave		GTA
Linked Objective: Increase access to healthcare by 2045										
Action: Facilitate the renovation of two (2) dilapidated health infrastructure (Nkawkaw and Fodoa)										
Number of health infrastructure renovated	Measures the count of number of infrastructures renovated	Output	1	0	0	0	0	- Nkawkaw - Fodoa	Annually	KWMA

2.11.2 Evaluation

The evaluation of the SDF is undertaken to determine the effectiveness and impact of the plan. This focuses on the extent to which the Plan achieves its objectives within the context of the broader National, Regional and District Development Plans. It is, therefore, a vital step toward revising the SDF and preparing a new one.

Evaluation of SDFs could include consideration of the following questions:

- Has the SDF Vision/Goal achieved its intended impact?
- Has the SDF objectives achieved its intended impact?
- Has any unintended or less desirable results, outcomes, or impacts arisen from SDF implementation?
- During the previous planning period, did the overall population grow as expected, at a faster rate, or at a slower rate?
- Did the Management Team effectively carry out its duties, drive the programme, and manage the budget responsibly?
- Were stakeholders adequately consulted, and were their views incorporated into the process?
- Were stakeholders adequately informed of the process, and of how their interests and responsibilities relate to the realisation of the Plan?

2.11.3 Indicators

The development of indicators is essential for measuring the achievement of inputs, outputs, outcomes or impacts which are pre-defined and directly linked to SDF goals and objectives. For implementation of SDF, all monitoring shall be conducted at all levels by the appropriate oversight authority or institution.

2.11.4 SDF Outcomes & Impacts:

The evaluation of outcomes and impacts will focus on whether the strategic proposals of the SDF have been implemented as intended and whether they are producing the desired results. Key guiding questions include:

- Is the population distribution between settlements and towns aligned with projections, or has it shifted unexpectedly? If shifts have occurred, what are the possible reasons?
- What proportion of the designated industrial space has been taken up and developed for industry?
- What additional areas have been developed for industry, and where are they located?
- Has the proposed road and rail plan been implemented on schedule and in the intended locations?
- Have major infrastructure trunk lines for water and power been developed as proposed, or are they under development?
- Have key transport nodes (e.g., ports, airports) been developed as planned?
- Have areas designated for limited development or special treatment been respected and maintained?
- Have the main commercial centres been developed in accordance with the Plan's proposals?
- Have identified tourist areas been developed as expected?

- Have tertiary educational institutions and district/regional hospitals been established or expanded in the proposed locations? Have other critical developments identified in the SDF been realized or are they currently being implemented?

Table 2.9: Evaluation Matrix

Evaluation Criteria	Evaluation Questions	Data Needed	Data Sources	Data Collection Method
Relevance	1.0 Is the program aligned with the Spatial Development Framework (SDF)?	2022-2025 Spatial 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

Evaluation Criteria	Evaluation Questions	Data Needed	Data Sources	Data Collection Method
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

Evaluation Criteria	Evaluation Questions	Data Needed	Data Sources	Data Collection Method
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

2.12 Step Nine: Draft Final SDF for Stakeholder Consideration

2.12.1 Stakeholder Consultation

The Draft Final SDF will be presented to stakeholders for their final comments. The comments will be reviewed, and where necessary, incorporated into the document.

2.12.2 Quality Control

Although the Authority to approve plans rests with the designated approving bodies, the Land Use and Spatial Planning Authority (LUSPA) will ensure quality control of the prepared plans.

Prior to approval, LUSPA will review the Draft RSDF while the DSDF will be submitted to RSPC Secretariat through the DCD for review. This is to ensure the conformity of the Plans with higher-level frameworks, established standards, and technical requirements. Certified copies of the final SDF (hard and digital) will be lodged with LUSPA through the Regional Spatial Planning Committee (RSPC) for record-keeping and integration into the national spatial database.

2.13 Step Ten: Approval, Adoption, Dissemination of SDF

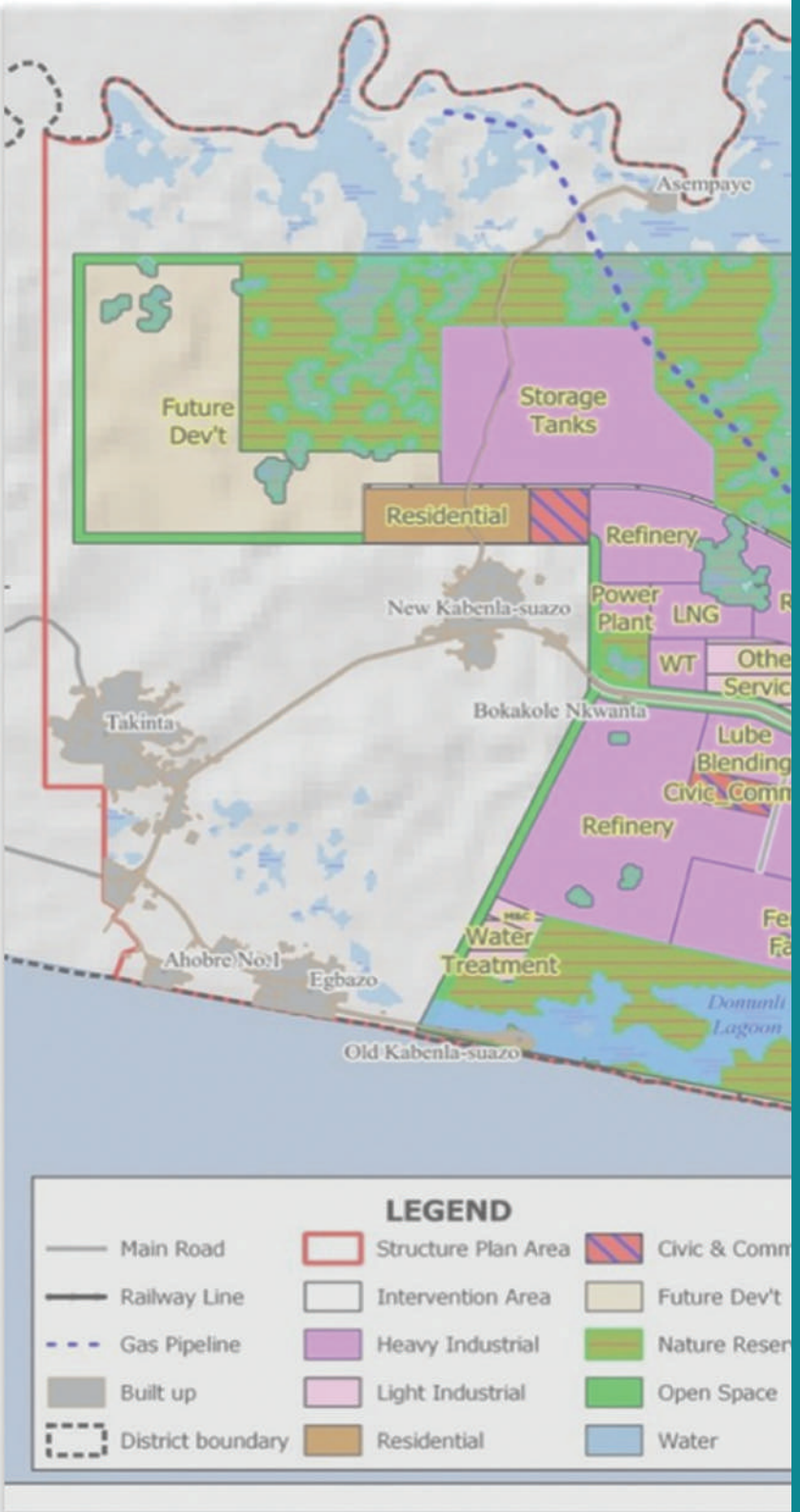
After incorporation of stakeholder comments, the Draft Final SDF will be presented to the approving Authority for approval and publication. Certified Copies of the Plan must be disseminated to key stakeholders as outlined in Table 2.10, and the public data room, where applicable.

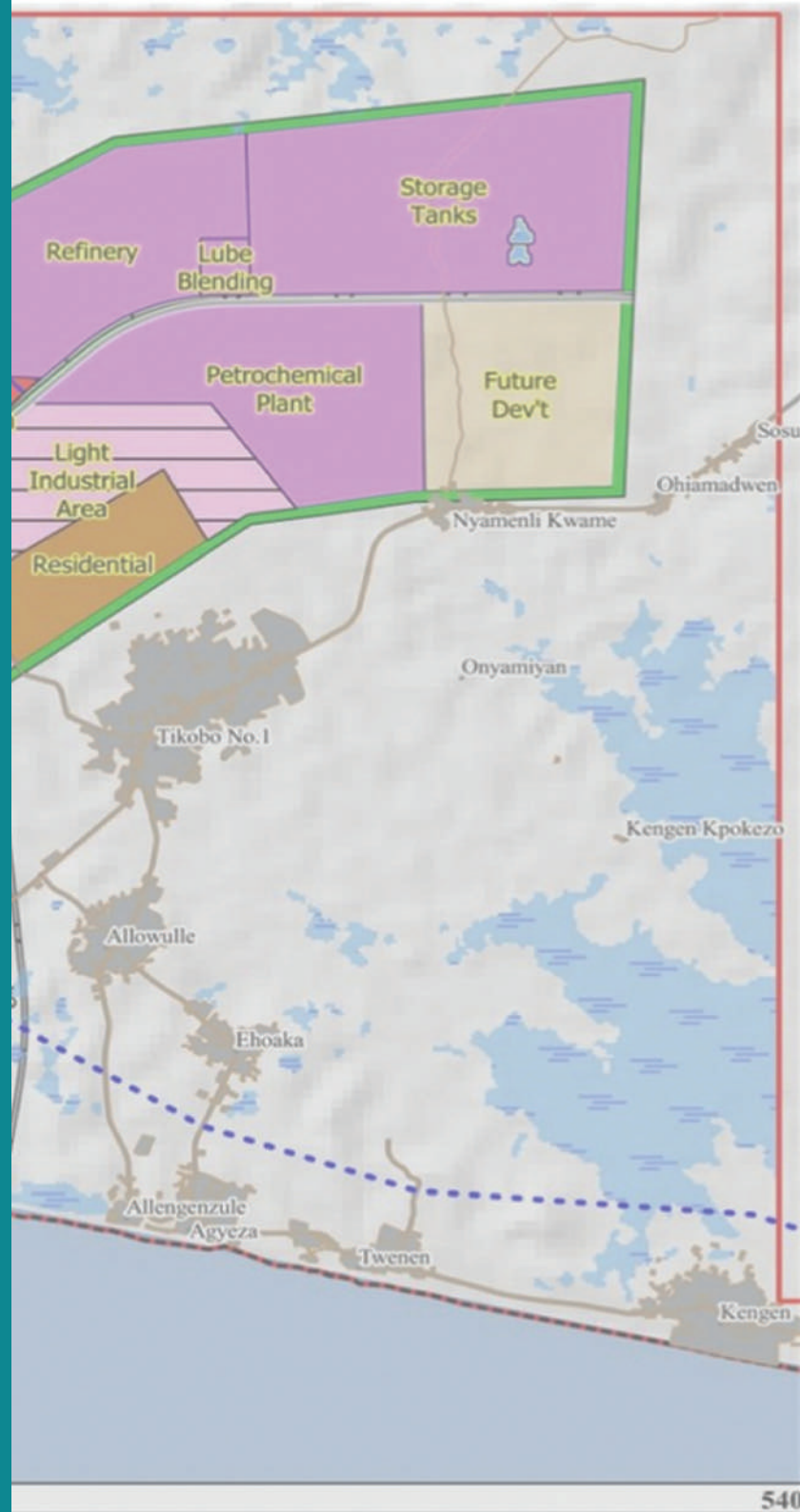
Table 2.10: Summary of Approving Authorities, Publication and Dissemination of SDF

No	Level of SDF	Approving Authority	Publication	Dissemination
1	National and Sub National SDF	President of the Republic	Gazette, Daily newspaper of national circulation	Office of the President, LUSPA, NDPC, All RCCs, District Assemblies, National House of Chiefs; and All Ministries
2	Regional, Sub Regional, Joint or Multi Regional SDF	RCC		Office of the President, LUSPA, NDPC, District Assemblies within the region; MDAs within the region, LUSPA
3	District SDF	General Assembly of the District		LUSPA, NDPC, RCC, Departments within the Assemblies, Relevant Agencies within the District

SECTION THREE

PROCEDURE FOR PREPARATION OF STRUCTURE PLAN





3.0 Structure Plan

3.1 Purpose of a Structure Plan

A Structure Plan is a statutory long-term framework used to guide and define the development, redevelopment and land use patterns of human settlements. It is prepared for major settlements, urbanizing areas, an entire district, contiguous districts or development corridors. Additionally, Structure Plan could be prepared for other areas such as;

- Areas of rapid urban growth;
- Urban settlements that are subject to redevelopment and regeneration due to changing dynamics of economic growth and employment (e.g., the old mining towns, or towns where the main industrial base has collapsed or changed;
- New towns or urban settlements;
- Parts of towns, or 'sectors', where development is to be phased over time;
- Areas likely to be affected by major industrial, communications or other development schemes (e.g. areas near planned new national or international airport sites, inland ports, mining etc.); and
- Areas proposed for major tourism projects, nature conservation areas and development including near important heritage sites.

It is prepared for a period of fifteen (15) years and should be revised every five years. The Structure Plan prescribes dimensionally accurate land- use zones that have an accuracy of +/- 10m, and are legally enforceable. The land uses defined in the Structure Plan are based on the strategic objectives and policy goals of the existing Regional or District SDF.

3.2 Contents and Scope of a Structure Plan

The Structure Plan shall consist of a report and a set of maps. The Plan will designate zones or areas for specific uses and purposes. The report shall include:

- Background and justification for the preparation of the Structure Plan;
- Description of the area;
- Key concerns and issues affecting the area;
- Sectoral analysis and thematic maps;
- Vision, Goals and Objectives of the Structure Plan;
- Needs assessment and Projections for each thematic area;
- Development options for the area;
- Sectoral development proposal;
- Composite map of the proposals;
- Strategic Environmental Assessment (SEA);
- Implementation plan (Phasing, financing, investment plan);
- Monitoring and evaluation plan

The Structure Plan will identify other existing planning activities from neighbouring MMDAs, regional and national development plans that will be relevant for the future development of the Structure Plan area. The policy goals should be reflected in the development visions for the Structure Plan area.

The Structure Plan shall designate the zones or areas for specific uses and purposes including:

Zone	Specific Use
Residential	Residential houses
Commercial	shops ,Warehouses, markets, etc
Industrial	Factories, workshops, assembling points for machinery, cottage industry, arts and craft, etc.
Education	Tertiary, Secondary, basic and pre -school, etc.
Civic and Culture	Health, place of worship, offices, security, etc.
Public Space	Recreational areas, cemeteries, utility/ infrastructure right of way, forest reserves, conservation areas, tourist sites, etc.
Agriculture	Crop/tree Plantations, animal husbandry, etc.
Transportation and logistics	Ports and habour, airport/ airstrip, roads, railways, etc.
Utilities	Water, electricity, communication infrastructure, drainage, etc.

Refer to the Zoning Guidelines and Planning Standards for further details

3.3 Steps in the Preparation of Structure Plan (SP)

The detailed steps in the preparation of a Structure Plan have been summarized in Table 3.1

Table 3.1: Summary of Steps in the Preparation of a Structure Plan (SP)

Step	Activities	Expected Output
Step 1: Set Up the Process	• SP is initiated by RSPC, DSPC, LUSPA, Consultant • Planning Team prepares detailed workplan (timelines, equipment needed) and budget for the preparation of the SP • Review relevant policy documents, programmes and projects • Undertake initial visit to plan area • Prepare Inception Report (objectives, methodology, timelines, stakeholder mapping, etc. of the project) • Organize stakeholder engagement to present inception report	Approved Inception Report

Step	Activities	Expected Output
Step 2: Undertake Data Collection	• Obtain basemap and other physical features (topography, relief, administrative boundaries, etc) • Undertake spatial and non-spatial data collection through surveys, remote sensing, interview guides, stakeholder consultations, etc • Compile and segregate datasets.	Baseline Report & Database (Geo Database)
Step 3: Undertake Situational Analysis and identify Development Challenges and Opportunities	• Undertake Data cleaning and validation where required • Prepare thematic maps with stakeholders • Analyse existing situation (Social, Economic, Spatial etc.). • Highlight key issues, challenges and opportunities • Organize Stakeholder Consultation to present the existing situation	Situational Analysis Report, Maps and Database
Step 4: Develop Vision, Goals and Objectives	• Formulate Vision, Goals, objectives and strategies for the SP with stakeholders	SP Vision, Goals and Objectives
Step 5 : Develop Scenarios and Select Preferred Option	• Develop scenarios with stakeholders based on the vision of the SP • Undertake SWOT analysis of each scenario • Organize stakeholder consultation to select a preferred option • Firm up preferred option • Develop land use proposals (including maps) for the preferred SP • Land use proposals should be in line with the zoning Guidelines and planning standards	Draft Preferred Option
Step 6: Prepare SEA	• Prepare Strategic Environmental Assessment (SEA) in the absence of an SDF • SEA process must commence at the start of the plan preparation process	SEA Report
Step 7: Implementation Plan (Phasing, Financing and Investment)	• Develop implementation plan (activities, implementing agencies, cost, funding sources, timeframe). • Align SP activities with the MTDP of the District for integration	Implementation Plan

Step 8: Prepare Monitoring & Evaluation Plan	• Develop M&E Plan to align with NDPC guidelines	M&E Plan
Step 9: Prepare Draft Final Plan and present to stakeholders	• Prepare Draft Final SP with written report, maps, and land use proposals. • present draft plan to stakeholders for final comments	Draft Final SP
Step 10: Approve, Adopt and Disseminate	• Submit Draft Final SP to RSPC Secretariat through the DCD for quality control • Submit Draft Final SP to LUSPA/RSPC/ SPC (depending on level of SP) for approval and to the General Assembly for Adoption. • Gazette and Publish approved SP in newspapers, public data room, etc. • Disseminate SP report to relevant stakeholders using appropriate media	Approved and Gazetted SP Report and Maps Published & Disseminated SP

3.4 Step One: Setting Up the Process

3.4.1 Initiation and Preparation of a Structure Plan

A Structure Plan (SP) shall be initiated and prepared by LUSPA, RCC (RSPC) and the District Assembly (SPC). On the other hand, the District Assembly may outsource, in accordance with the laws on public procurement, the preparation of the Structure Plan to a Spatial Planning Consultant and provide oversight responsibility.

3.4.2 Setting up the Plan Preparation Team

The Technical Sub Committee shall, subject to the approval of the Spatial Planning Committee, prepare the Structure Plan for the district. The TSC shall submit an initial draft of a Structure Plan to the SPC not later than twelve months after receipt of notification to commence preparation of the Structure Plan. Except where the Authority through the Regional Coordinating Council grants an extension, each District Assembly shall, within thirty days after approval of the District SDF, give notice of the approval to the public by publication in a newspaper of national circulation, and commence the preparation of a Structure Plan for its area of jurisdiction.

The Structure Plan shall be completed not later than eighteen months after the approval of the District Spatial Development Framework or within an extension granted by the Authority in accordance with Regulations and guidelines.

Where the RSPC prescribes an area to be covered by a Structure Plan, it shall serve a written notice of the prescription to the RCC and the affected District Assemblies within seven days after the decision to prescribe the area. The RCC shall, within twenty-eight days after receipt of

the notice of the prescribed area, set up an adhoc Joint Technical Committee comprising of at least one representative of the Technical Sub-Committees in the respective districts. The ad hoc Joint Technical Committee shall submit a draft Structure Plan for the prescribed area not later than twelve months after receipt of notification to commence preparation of the Structure Plan.

3.4.3 Preparation of Work Plan/Budget/Stakeholder Mapping

The Planning Team is expected to prepare detailed work plan (expertise, timelines, equipment needed) and budget for the preparation of the Structure Plan as an input for the Medium-term Development Plan. Also, the Team is required to identify stakeholders that will directly or indirectly be affected by the Local Plan and their roles, for further consultations throughout the stages of the plan preparation process. The Team shall further prepare an Inception Report stating the objectives, methodology, timelines, stakeholder mapping, etc of the project.

3.4.4 Initial Visit to the Plan Area

It is essential that the Planning Team responsible are familiar with the plan area regarding main infrastructure, size of plan area, settlements and communities. Field visits provide additional information on those likely to be affected by the plan. This will help the Planning Team establish networks with focal persons and indigenes for subsequent data collection.

3.4.5 Inception Workshop

A Structure Plan must be prepared in consultation with relevant public and private institutions and stakeholders. This is the first stakeholder consultation with the aim of making the intent of preparing the Structure Plan known to the stakeholders, as well as present an inception report to the stakeholders. At this point, the Planning Team may request their support and commitment throughout the plan preparation process. The following may be considered:

- Identify stakeholders and invite them to a stakeholder meetings;
- Select appropriate venue for the engagement if it involves two or three districts/regions;
- Consider the use of local language as a means of communication, where applicable.

3.5 Step Two: Data Collection

3.5.1 Collecting Data

Reliable data is fundamental for the preparation of the Structure Plan (SP). Data is required from all major sectors — social, economic, and environmental — and must be sourced from multiple institutions, necessitating strong inter-agency collaboration. Adequate resources shall be allocated for data acquisition. Importantly, the process should commence even if some data gaps exist, as missing datasets must not delay the entire exercise.

3.5.2 Mapping of Spatial Data

For effective SP preparation, spatial data must be generated to capture the characteristics of the planning area. Using drones and other geospatial technologies, the Planning Team is required

to prepare base maps of the planning area. The list provided below may be varied according to the circumstances at the National, Regional or District level):

- **Characteristic 1: Physical and Natural Environmental Characteristics** of the Planning Area: digital elevation models, contours, water bodies, soil, climate.
- **Characteristic 2: Natural Protected Areas:** Parks, reserves, drainage, flooding and seismic risk areas, degraded areas and hazards etc.
- **Characteristic 3: Population and Human Settlement characteristics:** Population dynamics and population density; spatial structure, sizes and functions of human settlements, including hierarchy of human settlements, gender, ethnicity, tribal areas and language, tradition and religion, historic sites and culture, projected population of settlements, migration and development trends.
- **Characteristic 4: Economic activity:** Agriculture, industry, commerce, services, tourism, employment, local economic development, etc.
- **Characteristic 5: Social Development** – Health, poverty, education, gender, conditions, accessibility and availability of facilities.
- **Characteristic 6: Infrastructure:**
    - Road Infrastructure: types of road network and hierarchy, conditions of the road, length of roads, rail ;
    - Public Transport: location of transport terminals;
    - Air: location of airport and airstrip and amenities;
    - Water Transport: location of harbour, landing sites, etc.;
    - Water Supply: Types of water infrastructure and accessibility;
    - Sanitation (Solid waste, Sewerage and Storm Water): Types of Sanitation facilities and accessibility in the planned area;
    - Energy: Energy for cooking and Energy for lighting- Distribution of main lines, Location and accessibility;
    - ICT and Communication: communication installations and accessibility.
- **Characteristic 7: Population / Settlement Access to Facilities:** Access to primary education facility, secondary education facility, medical facilities, food markets, improved water sources, improved waste disposal, electricity and public transport.
- **Characteristic 8: Governance and Security:** Police stations, military, fire service, prison service, immigration service, private security organisations etc. Central and Local Governance entities such MMDAs, MDAs, Area Councils and Unit Committees etc. Civil Society organisations and traditional leadership.

3.5.3 Data Requirements for Structure Plan

Data collection shall be prioritized to ensure that relevant information needed to identify, analyze, and discuss spatial issues is captured. Coordination with relevant agencies is critical, with preference given to existing official datasets where available. The National Census remains the principal baseline data source, with complementary inputs from sector agencies. Selected social and economic datasets may be mapped at the level of census enumeration areas.

Table 3.2: Physical Data and Sources

No.	Type of Data Required	Primary Sources	Remarks / Considerations
1	Base Map • Administrative Boundaries • Existing Roads • Rail lines • Waterways, channels, main • drainage channels, rivers and • water bodies, flood zones, • Coastline • Power transmission lines • Existing development (Built, or part built up areas) • Available Topographical Map/ relief • soil	• Institutional sources (eg. Survey and Mapping Division of Lands Commission) • Recognized sources	
2	Population Data • Population by different census districts • Population growth and distribution • Spatial Structure • Sizes and functions of human settlements, • including hierarchy of human settlements • Age pyramid for each sex • Population projections • Household size • Household size projections • School age children • Historical population trends • Urbanization (rural-urban continuum) • Settlement distribution • Productive population • Migration trends • Population density	• GSS • MMDA-DPCU • Academia and Research Institutions	The data on population should be collected from GSS and validated at the national, regional and District levels in line with the planning year
3	Income/Employment • Employment by sector • Employment projections • Space projections, by employment • Sector and number of employees • Household income	• Ghana Statistical Service • MMDA-DPCU • Labour Department • Ministry of Gender, Children and Social Protection (Ghana Household Registry) • GSS	Consider space needs for different job types

No.	Type of Data Required	Primary Sources	Remarks / Considerations
4	Major Allodial and state land ownership boundaries • Traditional State	• House of Chiefs • Lands Commission • OASL • Customary Land Secretariate	Ownership of land helps identify potential locations for additional government structures, supply and land economy issues.
5	Residential Areas Housing and neighbourhoods • Classification of existing residential areas as High density Area Medium Density Area Low density Area • Description of neighbourhoods or communities regarding: Actual occupancy (households/per unit / compound) • Housing conditions (overcrowded, unsanitary, structurally unsafe etc) Preferred occupancy • (households/per unit/ compound) • Projections of housing demand taking into account present shortage, housing conditions and growth • Land requirement for housing • Housing density	• Census • MMDA-DPCU • Survey • Satellite and aerial photography (number of houses). • LUSPA Standards • Use LUSPA Classifications and Styles	Generally household sizes are diminishing, so the existing supply of housing land may be inadequate even in the case of zero population growth. Land projections should take into account population growth and at least the need for about 30 percent more land than what is actually occupied for the market to work
6	Economic Spaces • Economy by sector (Industry, Service, Commerce, Agriculture) • Present main economic locations analysis of all sectors and the relative efficiency of the use of the land where presently located	• MMDA-DPCU • Commercial associations, Surveys • Satellite and aerial photography • Use LUSPA Classifications • and Styles	While such surveys have not been carried out, much of this will need to be collected from organizations representing the commercial sector and market vendors.
7	Civic and Culture • Health Facilities • Existing Health Facilities • Plans for extension or new hospital or other health-related facilities. • Implications for land requirement	• Ministry of Health, • Ghana Health Service, Regional] • District Departments of Health, Health Agencies	The objective is to find out whether additional land should be identified for new medical facilities, outside of existing hospital grounds and not including small clinics that are part of areas of housing or commercial development

No.	Type of Data Required	Primary Sources	Remarks / Considerations
8	Admin. Developments • Public facilities and plans for • extension and new facilities • Land requirements outside • existing compounds etc. • Private Sector Service Offices	• District Assembly, • RCC • Government agencies • Private Local Service • Sector	Identify new land needs
9	Tourism • Hotel, Guesthouse, Restaurant • and Tourism Information facilities • Tourist Attractions • Museums, cultural places, traditional palaces, shrines and village settings and other historic sites • Number of tourists and outside visitors visiting area over the past five years • Projected growth in Tourists/ • outside visitors • Type of tourists/visitors • Projections of hotel accommodation • and type of accommodation required • Projections of land requirements	• Ministry of Tourism, • Ghana Tourism Authority, • Ghana Tourism Development Company • MMDA-DPCU, Local Hotels • Local Tourist Agencies and Associations	Land requirement for tourism growth
10	Culture & Worship • Museums • Historical Places • Chiefs' palace • Durbar grounds • Proposals for development of seminaries, convents, mosques, monasteries	• Survey of historical • religious leaders and traditions • MLGCRA, • Ghana Statistical Service, • Religious Associations, MMDAs, • Registrar General, Survey of religious leaders	The objective is to find out whether additional land should be identified for new medical facilities, outside of existing hospital grounds and not including small clinics that are part of areas of housing or commercial development
11	Education • Capacity of existing, in particular Senior Secondary Schools and Higher education institutions. • Based on population projections, • need for additional schools • Plans for expansion of existing schools and tertiary educational institutes • Plans for location of Tertiary • Educational institutes	• Ministry of Education, • Ghana Education Service • Survey of schools • Universities and other educational facilities such as vocational training centers etc	The main concern is the land requirement for secondary schools and tertiary educational institutes, which tend to be substantial land users. Schools provided to serve just the local community (primary schools and kindergartens) are part of the residential areas and not identified at this level of planning

No.	Type of Data Required	Primary Sources	Remarks / Considerations
12	Sport & Recreation • Major Recreational Area such as sport field, stadium, Sport's Club, Swimming Pool Golf, Amusement Park, Zoo Parks • Cemetery • Protection Area with public Access	• District Assembly • Ministry of Sports and Youth Development • National Sports Authority • Ministry of Tourism District Tourism office EPA	The main concern is to identify, analyze recreational potential and public accessibility
13	Industry • **Light Industrial Areas** • Small scale light industry such as Specialized Electronic, Medical, Food Processing, Service workshops and artisan production including fuel filling stations. • **Heavy Industry** • such as big scale manufacturing, assembly of machinery, vehicles and heavy equipment, • **Noxious and Hazardous production** regarding fuels, explosives, poison chemicals, refining and galvanizing Industry, cement production, slaughterhouse, vehicle repair workshop • **Mining and Extractive Industrial** Including rock, sand, clay, mineral ore and precious stones	• National Industrial • Census • Government Offices • EPA, • MMDAs- DPCU, • Survey • Satellite and aerial photography, • LUSPA Standards • Use LUSPA Classifications and Styles	The overall scope is to locate the productive activities according to functions, accessibility and environmental risks to be used for planning of development areas and employment opportunities as well as protection of the population and the natural environment.
14	Security Uses • Areas for military purposes, prisons and police barracks and stations and associated uses	• Government Institutions • MMDAs- DPCU, • Site visits to the facilities	Site visits recommended

No.	Type of Data Required	Primary Sources	Remarks / Considerations
15	Transportation • **Road Network** – approved (planned) • and existing: • Motorway National Highway Regional Major Arterial • District or Municipal Arterial • District or Municipal Collector Road • Local Road • Bus routes and terminals • Rail Network • Existing rails and land reserved for future lines • Water Transport • Ferries and Harbours • Including fishing harbours • Airports and landing strips • Public Transport • Non-motorized Transport • Conditions of Transport Infrastructure	• Ghana Highways Authority, • Dept. of Urban Roads, • Department of Feeder Roads • Ghana Railway Authority, • Railway Development Authority, • Ghana Airport Company Limited, • Ghana Civil Aviation Authority, • Ghana Maritime Authority, • GPHA, • VRA, • Transport Unions • Ghana Shippers Authority • Satellite and aerial photography. • Field survey	Road hierarchy and indication of functionality and maintenance, reservation for future road extensions Identify stations, spot data
16	Traffic Analysis • Analysis of traffic flows at different times of • day and in each direction, • Projected traffic flows for period of plan • Projected road sizes (and hence need to • upgrade or develop new roads)	• Ministry of Transport, • Department of Urban Roads, • Highway Authority, • Research Institutions and academia, • MTTD – Police Service, • Transport Unions, • DVLA, • MMDAs, • Traffic Surveys,	Required for infrastructure Planning
17	Water Supply • approved extensions, • Water treatment plants	• Ghana Water Company and Contractors, • Community Water and Sanitation Agency, • Small Town Water Systems, • Water Resources Commission	Pipe size should be indicated where available the condition of the pipes. Further information will be required on the supply of water for each part of the system, tank and wells and existing extension plans Main distribution network classified by capacity

No.	Type of Data Required	Primary Sources	Remarks / Considerations
18	Electricity	• Survey and Mapping • Electricity Company Ghana and other Power Authorities (GRIDCO, VRA)	Map full grid layout
19	Telecommunication • Telecommunication Masts, • Radio and television, • optic fibre lines	• Television and Radio • Ministry of Communication, Digital Technology and Innovation, • National Communication Authority, • Ghana Chamber of Communication, • GIFEC, • Tele Communication agencies	Spot reference and location
20	Sanitation Sewerage System Network • Sewage Drainage System – primary network only • Sewage Treatment Plant if existing or planned Solid Waste • Refuse Collection Point • Land Fill	• MLGCRA, • MMDAs, • Waste agencies	Main systems of sewage disposal exists in very few places in Ghana but may be developed in newer planned urban
21	Agriculture • **Land Evaluation** (based on soil suitability analysis): • Areas with high productivity potential for agriculture, crop production and animal production	• Ministry of Food and Agriculture (MoFA) • Millenium Development Authority (MiDA)	• Identify suitability • of land for different agricultural uses and the quality of the • land (i.e. potential productivity of land in agricultural use or yet to be exploited). Note that this is information to be obtained from the district agricultural department and updated with other project documents,(e.g. MiDA work)
22	Forestry • Forestry Reserves • Plantations • Conservation areas	• Forestry commission, • Forest Research institute (FORIC)	

No.	Type of Data Required	Primary Sources	Remarks / Considerations
23	Water Bodies	• Survey and Mapping Division of Lands Commission. • Ghana Geological Survey Authority • MMDAs • aerial photography • Topographic Maps • Water Resources Commission • Ghana Hydrological Authority • Other levels of Plan. Field survey	
24	Slope/Fault Zones • Fault lines • Areas of unusable slopes and threatened by unstable slopes above sites	• MMDA • Ghana Geological Survey Authority	
25	Flood Zones	• NADMO • Ghana Hydrological Authority • Ghana Meteorological Authority • MMDAs • Satellite and aerial photography.	Note frequency and severity and projected trends
26	Areas of Ecological Importance and sensitivity including Forest Reserves	• EPA, • Forestry Commission, • Forest Research Institute	Note species under threat
27	Mineral Resources	• Mining companies, • Minerals Commission, • Ghana Geological Survey Authority, • field survey etc	Coordinate with extractive industries

3.6 Step Three: Situational Analysis, Development Challenges and Opportunities.

3.6.1 Analysis of Existing Situation

The existing situation describes the current state of all sectors to be assessed and documented in a Situational Analysis Report. The existing situation should be assessed and prepared by the Planning Team and the identified stakeholders. The sectors to be considered include:

- Population (population growth and distribution, projections, rural and urban settlement patterns,)
- Natural Environment/ Bio-diversity (land cover status and change, minerals, ecological zones, types and conditions, climate change, protected areas, natural heritage assets, built heritage assets)
- Climate Change (causes, trends and forecasts, mitigation measures, spatial impacts)
- Social Development (education, health, housing, gender)
    - Housing (types of dwellings, condition, density, occupancy levels, tenure status, housing delivery)
    - Health (types, condition, accessibility, and spatial distribution of health facilities)
    - Education (categories of schools, conditions, accessibility, and enrolment levels)
    - Security (types of security agencies, locations, and roles)
    - Gender (efforts to integrate gender considerations into land use planning)
- Infrastructure
    - Transportation (roads, public transport, railway, ports, and airports – including network length, categories, and condition of facilities)
    - Energy :
      (i) lighting- (Electricity – identify high- and low-tension lines, location, number and capacity of transformers, and renewable energy use)
      (ii) cooking: (types and availability of cooking energy sources)
    - Sewerage and Sanitation (solid and liquid waste disposal systems, condition, and accessibility of facilities)
    - Water Supply Infrastructure
    - Water Supply Infrastructure (sources, condition, demand distribution, and storage of water supply systems)
    - Telecommunication (available networks, communication centres, and their locations)
- Economic Development (employment, poverty, formal and informal sectors)
    - Agriculture (food crop production, cash crop, livestock and poultry production, aquaculture, agribusiness)
    - Industry
    - Commerce and Services
    - Tourism
    - Local Economic Development

The following may guide the analysis of the existing situation:

- Incorporate data from all relevant sources, including policy documents, MTDPs, and field surveys, covering social, economic, demographic, and spatial issues. Process

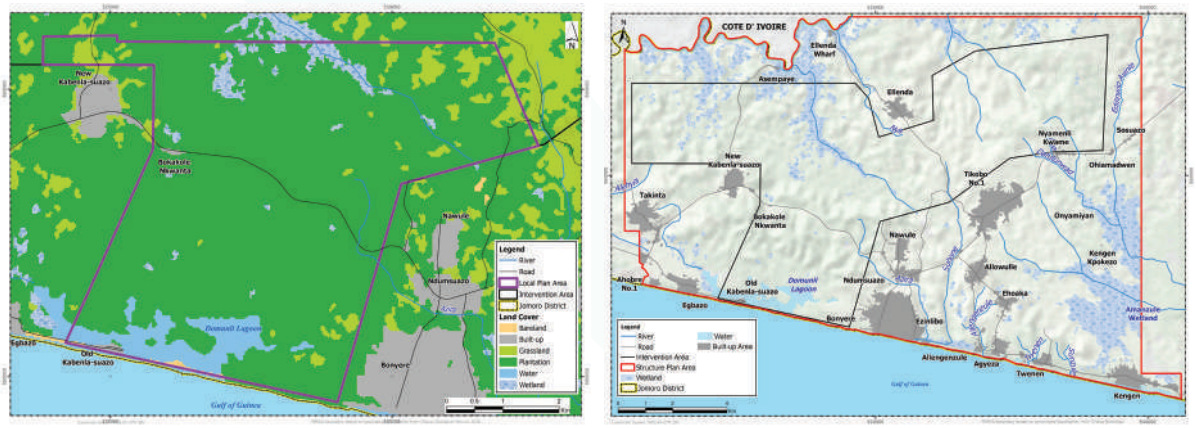
and assess spatial data to accurately reflect the current situation, key challenges, and opportunities;

- Review initial mapping outputs, problem analyses, needs assessments, opportunities, and policy goals;
- Use participatory analysis tools such as SWOT and POCC to clarify development opportunities and challenges. Present outcomes in text, diagrams, charts, graphs, images, and maps;
- Develop thematic maps for each sector (e.g. education, housing, health, settlement patterns, relief, drainage.

3.6.2 Spatial Data Analysis

When preparing the Structure Plan (SP), different spatial datasets (as outlined in Step 2) must be used to conduct geospatial analyses that inform land use, infrastructure, and policy decisions. Such analysis enables the Planning Team to better understand the spatial characteristics and development dynamics of the planning area.

Figure 3.1: Sample Maps (Landcover and Drainage)



3.6.3 Stakeholder Validation

The Draft Situational Analysis Report, which is also the key deliverable at this stage of the process, will serve as the basis for presenting data and analysis to stakeholders for their validation and endorsement for the next stage of the process. Following stakeholder validation of the findings, the draft may be formally published. The following may be considered in the stakeholder validation activity:

- Invite key stakeholders that have much knowledge and interest in the planning area;
- Present the Draft Situational Analysis (which contains analysis of data gathered from the plan area) to the stakeholders;
- Adopt appropriate tools for consultation (eg syndicate group discussions);
- Use simple terms and language.

3.7 Step Four: Vision, Goals, Objectives and Strategies

3.7.1 Vision

The preparation of the Vision, Goals, Objectives and strategies should be done together with stakeholders. The Spatial Vision of the Structure Plan is a forward-looking statement that articulates the long-term aspirations and desired future state of the planning area. It emerges from the key challenges and opportunities identified and guides the formulation of proposals and interventions

In formulating the spatial vision, the following should be considered. The vision should:

- clearly define the desired future spatial development of the planning area.;
- be broad, setting out the expected growth pattern and spatial development trajectory;
- be clear, inspiring, and reflective of the area's uniqueness, strengths, and opportunities;
- Be guided by the Regional/ Sub-National or District SDF;
- be holistic, integrating spatial, economic, social, and environmental dimensions;
- be realistic, achievable and sustainable.

The Vision for the Structure Plan should also be guided by the following documents:

Multi Regional SP -	National Spatial Development Framework, Regional Integrated Plan, and Harmonized Medium- Term Development Framework
District/ Joint District SPF -	Regional Spatial Development Framework, Regional Integrated Plan, Medium-Term Development Plan,
Sub Urban SP -	District Spatial Development Framework, Medium-Term Development Plan

Example of Vision at the Structure Plan level:

"To be a competitive destination in the sub-region for refined petroleum, petrochemical products and services to spur Ghana's industrialization agenda while ensuring orderly spatial development and sustainable environmental management"

3.7.2 Goals

The formulation of goals for the Structure Plan should be geared towards achieving the spatial vision. The following should guide the development of goals for the Structure Plan:

- National, Regional, and District policies (e.g., Medium-Term Development Plans) should serve as the basis for formulating strategic goals. Strategic Goals should be comprehensive, cross-sectoral, and directly linked to realizing the vision.

Example of Goals: "*To enhance competitiveness of Ghana's oil and gas industry through sustainable industrial development"*

3.7.3 Objectives for the Structure Plan

The following should guide the formulation of objectives of the Structure Plan. The objectives should:

- focus on actualizing the strategic goals formulated;
- specify the activities and strategies needed to attain them;
- address key issues, development challenges, and identified opportunities;
- operationalize the strategic goals within the SP timeframe;
- be SMART (Specific, Measurable, Achievable, Realistic, and Time-bound).

Example of Objectives for Structure Plan: **"***To create an enabling environment to attract domestic and foreign investments into the oil and gas industry through fiscal and non-fiscal measures.*"

Table 3.3: Framework for Developing the Vision, Goals, and Objectives

Component	Description	Guiding Principles	Example
Vision	Describes challenges and opportunities and directs proposed interventions.	- Clearly define the desired future spatial development of the planning area. - Broadly set out expected growth patterns and spatial development trajectory. - Clear, inspiring, and reflective of the area's uniqueness, strengths, and opportunities. - Aligned with Regional or Sub-National Spatial Development Frameworks. - Holistic, integrating spatial, economic, social, and environmental dimensions. - Realistic, achievable, and sustainable.	"Ensuring orderly spatial development and sustainable environmental management."
Goals	Broad strategic directions that translate the vision into overarching sector-wide ambitions. They guide policy, investment, and development actions.	- Drawn from National, Regional, and District policy frameworks (e.g., MTDPs). - Comprehensive and cross-sectoral. - Directly linked to the realization of the vision.	"To enhance the competitiveness of Ghana's oil and gas industry through sustainable industrial development."

Component	Description	Guiding Principles	Example
Objectives	Specific, measurable targets and actions derived from the strategic goals. They address identified issues and guide implementation within the plan period.	- Derived from strategic goals. - Address key issues, challenges, and opportunities. - Time-bound and aligned with the Structure Plan's implementation period. - SMART (Specific, Measurable, Achievable, Realistic, Time-bound).	"To create an enabling environment to attract domestic and foreign investments into the oil and gas industry through fiscal and non-fiscal measures."

3.8 Step Five: Development of Scenarios and Selection of Preferred Option

3.8.1 Scenario Development

Development of Scenario is an ideation process that considers bringing to bear multiple existing and future land use proposals for an area aimed at promoting the goals of the Structure Plan. Furthermore, scenario development is a medium through which the planner shares with stakeholders' convictions about the spatial, land use and development of an area. They are not forecasts or predictions but represent an effort to tie spatial planning into the needs and desires of the community. They represent possible feature activities that might occur based on what already exists, on trends that are evident, or on regional goals and community values captured throughout the planning process. Scenario development exercise shall be done in conjunction with stakeholders.

3.8.2 Guiding Principles

The development of guiding principles is informed by the client's brief, current policy documents and proposals, the comments arising from the stakeholder consultations and the Planners' own experience. The guiding principles will serve as the course of action for future development. They may stand alone or be incorporated in the relevant section of the proposal. The aim of the guiding principles is to make the plan sustainable.

3.8.3 Developing the Structure Plan Scenarios

In developing different scenarios to guide the spatial development of the plan area, the Planning Team in consultation with stakeholders should prepare a minimum of two options which should be implementable and sustainable .

The following factors should be considered when developing the scenario options:

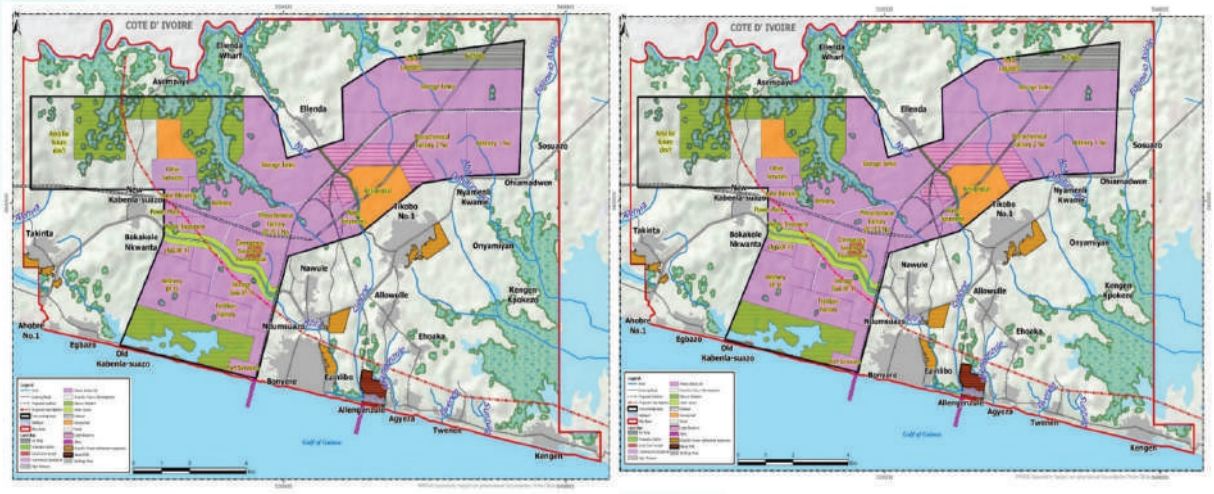
- Incorporate the existing situation, vision, goals and objectives to inform the designing of the scenarios;

- Ensure alignment with existing national, regional or district policies, development perspectives and proposals;
- Clearly describe each scenario, underpinning principles and its proposed spatial development pattern;
- Establish objectives to guide each scenario;
- Identify the unique features and proposed interventions of each scenario;
- Highlight the strengths and weaknesses of each scenario for comparative assessment.

Figure 3.2: Example of Scenarios

Scenario One: *Petroleum Hub is hinged on the aggregation of similar activities to mitigate likely risk from the anticipated industrial activity*

Scenario Two: *Petroleum Hub will share port services with the Naval Forward Operating Base (FOB).*



3.8.4 Stakeholder Engagement to Select Preferred Option

The formulated vision, goals and objectives for the Structure Plan together with the proposed scenarios shall be presented to stakeholders for their inputs and preferred scenario. The following may be considered:

- Group stakeholders to allow in-depth understanding of each scenario;
- Allow stakeholders to make their informed decision/choice.

3.8.5 Firming up the Preferred Scenario

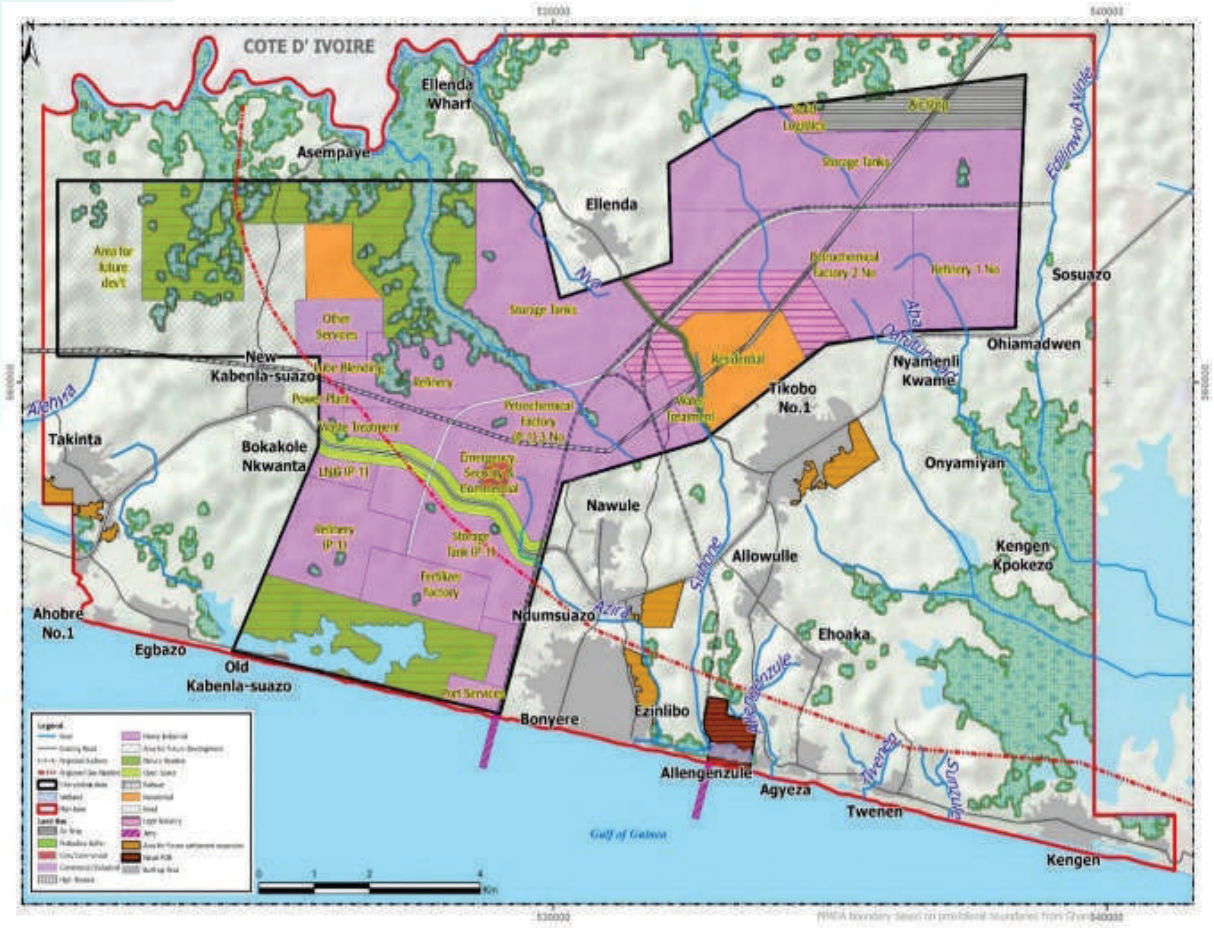
The Planning Team should prepare the First Draft Proposals by systematically reviewing the SP elements, incorporating consultation outcomes, and design proposals for the SP. By this means, the spatial plan will emerge as a diagram in which all elements are integrated into an overarching spatial strategy. At this stage, the Planning Team applies technical expertise to design the preferred option and way forward. The following may be considered:

- Describe the strengths and weaknesses of the preferred scenario;
- Justify the selection of the preferred scenario;
- Identify opportunities for the preparation of lower level spatial plans;

3.8.6 Develop Land Use Proposals

Develop land use proposals (including maps) for the preferred Structure Plan. Land Use proposals should be in line with the zoning guidelines and planning standards.

Figure 3.3: Example of a Preferred Option for Structure Plan



3.9 Step Six: Strategic Environmental Assessment (SEA)

3.9.1 SEA for the SP

Strategic Environmental Assessment (SEA) shall be prepared for a Structure Plan area, in the absence of an SDF. It should consider the environmental, economic, social, cultural and intergenerational consequences and potential benefits of a plan. The SEA should ensure that the environmental impacts are taken into account at the earliest possible stage of decision-making. There is the need to analyse and evaluate the environmental impacts of regional planning and sectoral plans as well as planning alternatives. The Strategic Environmental Assessment (SEA) process must be initiated at the commencement of the Structure Plan preparation process. The preparation of the SEA shall be guided by the Land Use and Spatial Planning Act, 2016 (Act 925) and shall comply with the Strategic Environmental Assessment Guidelines issued by the Environmental Protection Authority (EPA).

3.10 Step Seven: Implementation Plan (Phasing Financing and Investment)

3.10.1 Action Plan

In order to implement the SP, the necessary activities must be identified based on the proposals outlined under the Draft SP. The consequent list of activities can then be structured within phased plan periods. This process makes the SP practical and attainable by establishing clear and realistic timelines. It also defines the responsible agencies for implementation (lead and collaborator), cost, source of funds and the timelines.

❖ **Developing Key Actions**

In developing key actions from the SP proposals, the following issues need to be considered:

- Identify key actions in the proposals for each sector;
- Describe identified key actions for each sector that can be implementable;
- Identify priority actions for each sector;
- Identify the potential sources of funding for implementation of the actions/activities within the lifespan of the SP.

❖ **Estimated Cost of Actions/Activities**

The activities developed should be costed and the following should be considered;

- Every action should be costed or budgeted if possible;
- The estimated cost for each of the identified actions should be realistic even though it may not be accurate;
- All the potential sources of funding for the implementation of the actions should be identified;
- Estimated costs for the identified actions/activities should be done in United States Dollars to cover for any inflation and depreciation of the local currency;
- High-Cost actions such as capital investment projects should be reserved for long-term phasing;
- Low and medium cost actions should be reserved for short to medium term phasing.

3.10.2 Phasing

The action plan should be phased into four-year cycle to enable the proposals to be factored into the MTDP. The following should be considered;

- The activities for the sectors should be phased for the 15-year lifespan of the SP;
- Each phase should have a timeline (4year cycle) reflecting the order of priority of the identified actions;
- Each phase should have a time frame and an estimated cost;
- The phasing can be categorized as short, medium and long term.

Table 3.4: Example of Programme of Action

No.	Action	Description	Implementing Agencies		Timeframe (Years)	Est. Cost (US$)	Source of Fund-ing
			Lead	Supporting			
1	Rehabilitate defunct railway line	Facilitate the restoration of the defunct railway line	MRD	KWMA, DPs	11-20	2,000,000	MRD, DPs
2	Improve road conditions	Reshape150/ km feeder roads Liaise with stakeholders to patch pot-holes on all town roads	MRH	KWMA, DPs	6-10	107,500	MRH. DPs
3	Create lorry stations	Construct two new two (2) new lorry stations in Nkawkaw and two (2) parking lots at Nkawkaw and Fodoa	KWMA	DPs	6-10	487,500	KWMA, DPs

3.10.3 Implementation Plan

The implementation plan for the SP proposals shall be prepared in phases. This should serve as a guide for the spatial proposals in the Medium-Term Development Plans. In developing the implementation plan, there is the need to identify the following:

- lead organisation(s) responsible for securing funding and leading the implementation of the plan;
- potential options for capital investment financing and how operations and maintenance for assets will be financed;
- priority actions and activities for each sector;
- potential sources of funds for implementation of the proposals within the lifespan of the SP;
- proposals that will involve investment in the creation of assets (roads, buildings, forests, land acquisition, major equipment, etc.);

- proposals that will be implemented as a "project" or as a group of similar investments;
- priority investments/projects or activities;
- proposals/actions which should be phased to cover the lifespan of the SP;
- costing of proposals/actions which should be realistic and feasible within the lifespan of the plan.

3.11 Step Eight: Monitoring and Evaluation Plan

3.11.1 Monitoring and Evaluating the Structure Plan Implementation

The Structure Plan should have a Monitoring and Evaluation Plan to measure the level of implementation and impacts of the SP. To monitor and evaluate the implementation and performance of the SP, it is necessary to identify the SP's goals, objectives, activities and inputs required for implementation. Subsequently indicators must be developed to reflect these goals and objectives to be achieved. Monitoring serves as a management tool enabling the responsible authorities to record, check and correct the implementation process of spatial planning at the three levels of the planning system.

Monitoring and evaluation shall follow the guidelines stipulated by the NDPC for the SP

3.11.2 Monitoring

Monitoring can be reported on a monthly, quarterly, semi-annually and annual basis and will, as far as possible involve relevant agencies and existing data collection systems (Minutes of meetings, Meeting agendas, Departmental reports, physical inspection, etc.).

Table 3.5: Example of Monitoring Matrix

Goal: Promote sustainable and harmonious development of human settlements **Linked Objective:** Facilitate the implementation of the Faecal Sludge Management Project and improve upon storm water infrastructure										
Activity: Create two (2) retention ponds in the municipal capital to absorb run-offs										
Indicators	**Indicator Definition**	**Indicator Type**	**Baseline 2024**	**Target Years**				**Disaggregation**	**Monitoring Frequency**	**Responsibility**
				2025	**2026**	**2027**	**2028**			
Number of retention ponds created	Measures the number of retention ponds created	Output	0	0	0	0	0	- Nkawkaw	Annually	KWMA
Goal: Forster the necessary conditions for the local economy to thrive, propel growth and provide sustainable employment opportunities **Linked Objective:** Facilitate the establishment of 10 local manufacturing industries by 2045										
Action: Facilitate the establishment of a chicken processing factory at Oframase to boost the poultry industry										

Indicators	Indicator Definition	Indicator Type	Baseline 2024	Target Years				Disaggregation	Monitoring Frequency	Responsibility
				2025	2026	2027	2028			
Action: Liaise with stakeholders to develop existing tourist sites to modern standards (Asuboni No. 3 Waterfall, Ancient Artefacts, and Nkawkaw-kuma Cave)										
Number of tourist sites developed	Measures the number of tourist sites developed	Output	0	0	0	0	1	-Waterfall -Ancient artefact -Cave	Annually	GTA
Linked Objective: Increase access to healthcare by 2045										
Action: Facilitate the renovation of two (2) dilapidated health infrastructure (Nkawkaw and Fodoa)										
Number of health infrastructure renovated	Measures the count of number of infrastructures renovated	Output	1	0	0	0	0	-Nkawkaw -Fodoa	Annually	KWMA

3.11.3 Evaluation

The evaluation of the Structure Plan shall be conducted to assess the effectiveness and impact of the Structure Plan. This will focus on the extent to which the plan achieves its objectives based on the broader National Development Plan and the District Development Plans. It is, therefore, a vital step in revising and preparing subsequent Structure Plan.

Evaluation of the Structure Plan may address the following questions to consider:

- Has the Structure Plan Vision/Goal attained the target impact?
- Has the Structure Plan objective achieved the desired outcome?
- Have other, less desirable, results, outcomes and impacts occurred – as a result of Structure Plan implementation?
- In the previous planning period, did the overall population grow at the same rate, at a faster rate and at a lower rate than expected?
- Did the Management team carry out its duties, implement, and manage the budget properly?
- Were stakeholders sufficiently consulted with their views incorporated?
- Were stakeholders sufficiently informed of the process and how their interests, responsibilities, and the realization of the plan?

3.11.4 Indicators

The development of indicators is essential in determining the achievement of outputs, outcomes and impacts that are agreed in advance and are directly related to the Structure Plan goals and

objectives. For implementation of the monitoring and evaluation system, all monitoring shall be undertaken at MMDA level with oversight provided by Regional Authorities.

3.11.5 Structure Plan Outcomes & Impacts:

- Is the population distribution between settlements and towns as expected or distorted? What are the possible reasons for any observed changes?
- What proportion of the additional industrial space has been taken up and developed for industry?
- What additional areas have been developed for industry and where?
- Has the road/rail plan been developed or is it being developed as proposed (in terms of time and location)?
- Have other major infrastructure trunk lines for water and power been developed or are being developed as proposed?
- Have other transport nodes been developed as proposed (e.g. ports, airports etc.)?
- Have areas identified for limited development or special treatment been observed?
- Have the main commercial centres been developed as proposed?
- Have the identified tourist areas been developed as expected?
- Have the tertiary educational centres and district/regional hospitals been developed/ extended where proposed?
- Have other key developments identified in the Structure Plan been realized or are being realized?

Table 3.6: Example of Evaluation Matrix

Evaluation Criteria	Evaluation Questions	Data Needed	Data Sources	Data Collection Method
Relevance	1.0 Is the program aligned with the Spatial Development Framework (SDF)?	2022-2025 Spatial 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

Evaluation Criteria	Evaluation Questions	Data Needed	Data Sources	Data Collection Method
Efficiency	2.0 Is the approach to achieving the program objectives appropriate?	Program Objectives and Activities (POA)	Structure Plan	Questionnaire, Interview
	2.1 Are the program objectives clear and specific?	Program Objective Documents	Structure Plan, POA	Interview
	2.2 Can the program objectives be measured using available data?	Data Availability Assessment	Structure Plan, 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

Evaluation Criteria	Evaluation Questions	Data Needed	Data Sources	Data Collection Method
Effectiveness	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?	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

3.12 Step Nine: Draft Final Structure Plan for Stakeholder Consideration

3.12.1 Stakeholder Consultation

Once the Draft Final SDF has been put together, present to stakeholders for their final comments. The comments will be reviewed, and where necessary, incorporated into the document.

3.12.2 Quality Control

Prior to endorsement, the Final Draft Structure Plan shall be submitted to RSPC Secretariate through the District Coordinating Director for quality control. This is to confirm the Structure Plan's conformity with higher-level spatial development frameworks and established technical standards. Certified copies of the Structure Plan (hard and digital) shall be lodged with LUSPA through the Regional Spatial Planning Committee (RSPC), for record-keeping and integration into the national spatial database.

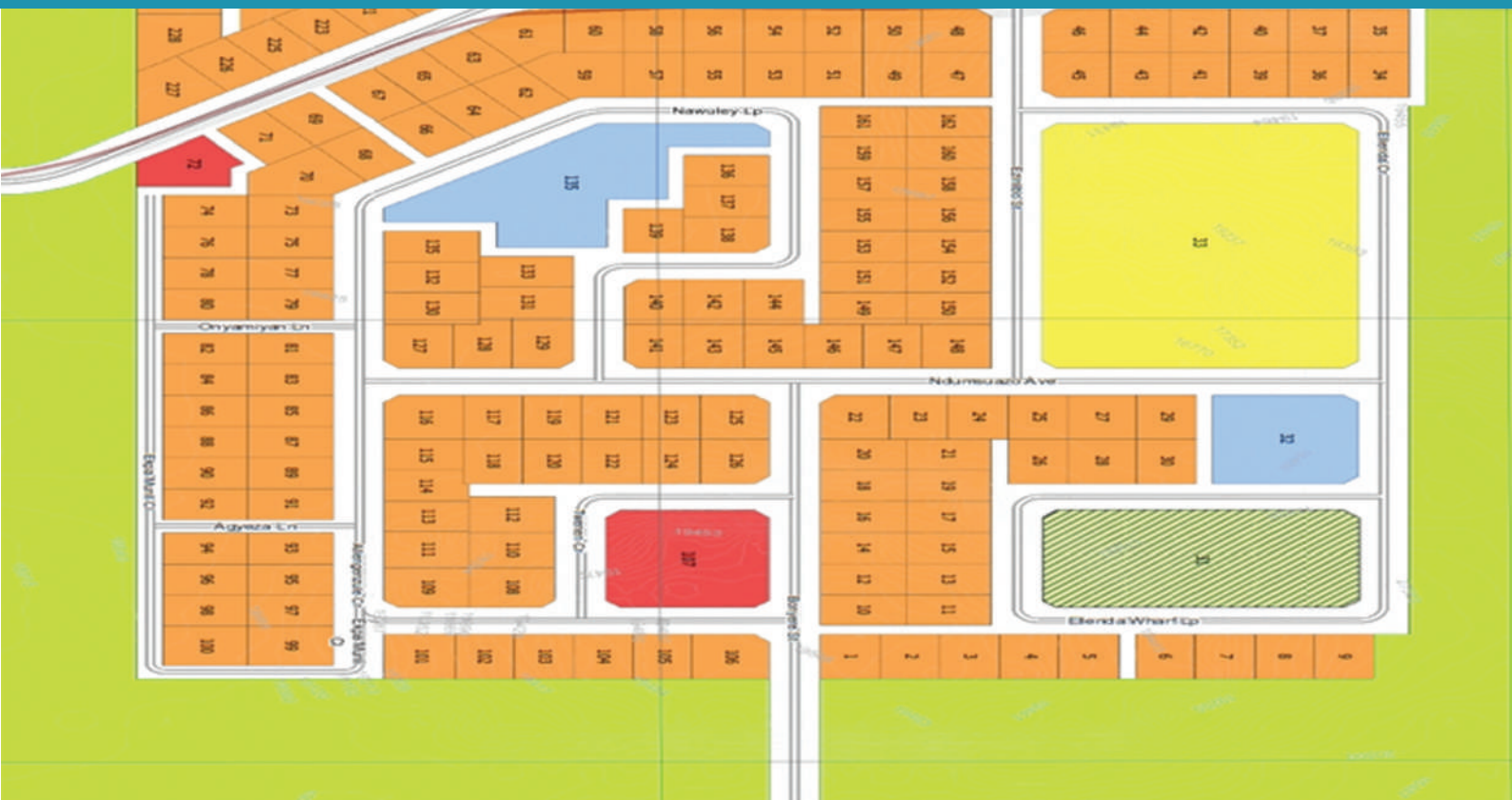
3.13 Step Ten: Approval, Adoption, Dissemination of the SP

The Final Draft Structure Plan shall be submitted to the Spatial Planning Committee of the District Assembly for consideration for approval, and subsequently to the General Assembly for endorsement. A copy of the endorsed Structure Plan bearing the seal or embossment of the District Assembly shall be made available for inspection at the Public Data Room of the District Assembly.

Copies must be disseminated to LUSPA, RCC, Departments within the Assemblies, relevant Agencies within the District and made available in the public data room of the District Assembly.

SECTION FOUR

PROCEDURE FOR PREPARATION OF LOCAL PLAN



4.0 Local Plan

4.1 Purpose and Contents of Local Plan

A Local Plan is the lowest tier in the three-tier planning system and supersedes the previous 'Sector Plan' system. It is a dimensionally accurate and strategic spatial document that guides the development and use of land within a specific area, over a five-year period. It is subject to review every five years and shows individual plots of land and uses such as open spaces, residential facilities, transportation systems, energy, water and drainage.

A Local Plan (LPs) prescribes the terms of development down to individual plot level and must be accurate to within +/- 0.3m. They provide the basis for decision making about applications for planning and development permits, land registration, and street naming. They also assign Unique Parcel Numbers (UPN) to plots which are linked to registered land titles at the Lands Commission.

Decisions about applications for permits to develop land for particular uses can therefore be aligned with strategic objectives and projects at national, regional and district levels through a Local Plan. Unlike the Structure Plan which shows broad land uses, the Local Plan defines plot sizes, the use of each plot of land within the Local Plan area and the types of buildings to be constructed on each plot in relation to density and height zoning regulations.

In order to facilitate and enhance site development and servicing of plots, the rights of way of roads and footpaths, water reticulation, drainage, sewerage, electricity distribution, telecommunication networks, and other essential services are defined in the Local Plan. As part of the Local Plan preparation process all streets must have a unique name, be subject to the Local Plan approval process, and be assigned parcel numbers in line with the Street Naming and Property Addressing Policy and operational guidelines.

4.2 Contents of a Local Plan

A Local Plan must make provision for the spatial aspects of the socio-economic development in the district and for the details that are relevant to human settlement issues in conformity with the general purpose and prescription of the zoning scheme.

Specifically, a Local Plan prescribes among others the following:

- Population size and density for residential neighbourhoods within the Local Plan area;
- Basic social services requirements for the Local Plan area;
- Required land uses;
- Overall form of physical development;
- Permissible built-to-non-built area ratio on a plot within each zone;;
- Permissible building height;
- Requirements for the preservation of existing structures;
- Landscaping requirements, including preservation of existing trees;;
- Sanitation requirements for all the developments within the plan area,
- Environmental protection requirements;

- Road network and circulation system, including parking and pedestrian walkways;
- level of utility services such as water, electricity and telecommunications, including distribution plans;
- Drainage system for the Local Plan area;
- Essential sewage networks;
- Solid and liquid waste collection and disposal arrangements;
- Composite spatial design or organization of the plan area to promote balanced land use , efficient mobility, visual attractiveness, order and health in the living and working environment; and
- Any other matters related to the management and development of the Local Plan area.

Based on the contents, it is clear that a Local Plan consists of a Report and a set of Maps

4.3 Steps in the Preparation of a Local Plan

The detailed steps in the preparation of the Local Plan has been summarized in Table 4.1.

Table 4.1: Summary of Local Plan (LP) Process

Step	Activities	Expected Output
Step 1: Set Up the Process	• Local Plan is initiated by the District Assembly (SPC), Land owners, developers, LUSPA • Planning Team (TSC/Consultants) prepares detailed workplan (timeframe, equipment needed, etc) and budget for the preparation of the LP as an input for the Annual Action Plan. • Review relevant policy documents, programmes and projects • Undertake initial visit to Plan Area • Prepare Inception Report (objectives, methodology, timeframe, stakeholder mapping, etc) • Organize stakeholder engagement to present inception report	Approved Inception Report.
Step 2: Conduct Data Collection	• Obtain basemap and other physical features (topography, relief, administrative boundaries, etc) • Undertake spatial and non-spatial data collection through surveys, interview guides, remote sensing,stakeholder consultations, etc • Compile andsegregate datasets.	Baseline Report & Database (Geo database).

Step	Activities	Expected Output
Step 3: Undertake Situational Analysis and identify Development Challenges and Opportunities	• Conduct data cleaning and validation, where required • Prepare thematic maps with stakeholders • Analyse existing situation (Social, Economic, Spatial etc). • Highlight key issues, challenges and opportunities • Organize Stakeholder Validation Consultation to present the existing situation	Situational Analysis Report, Maps and Database
Step 4: Develop Vision, Goals and Objectives	• Formulate Vision, Goals, Objectives and strategies for the LP with stakeholders	LP Vision, Goals and Objectives
Step 5: Develop Scenarios and Select Preferred Option	• Develop minimum of two scenarios with stakeholders based on the visio n of the LP • Undertake SWOT analysis of each scenario • Organize stakeholder consultation to select a preferred option • Firm up preferred option • Develop land use proposals (including maps) for the preferred LP • Land use proposals should be in line with the zoning Guidelines and planning standards	Draft Preferred Option
Step 6: Prepare SEA	• Prepare Strategic Environmental Assessment (SEA) in the absence of an SDF and Structure Plan • SEA process must commence at the start of the plan preparation process	SEA Report
Step 7: Prepare Implementation Plan (Phasing, Financing and Investment)	• Develop implementation plan (activities, implementing agencies, cost, funding sources, timeframe). • Align LP activities with the Annual Action Plan of the District Assembly eg. opening of access roads)	Implementation Plan
Step 8: Prepare Monitoring & Evaluation Plan	• Develop M&E Plan to align with NDPC guidelines	M&E Plan

Step	Activities	Expected Output
Step 9: Prepare Draft Final Plan and present to stakeholders	• Prepare Draft Final LP with written report, maps, and land use proposals. • present draft plan to stakeholders for final comments	Draft Final LP
Step 10: Approve, Adopt and Disseminate	• Submit Final Draft LP to RSPC Secretariate through the District Coordinating Director for quality control • Submit Final Draft LP to SPC for approval. • Gazette and Publish approved LP in national Newspapers, public data room, etc. • Disseminate LP Report to RCC and other relevant stakeholders using appropriate media	Approved and Gazetted LP Report and Maps Published & Disseminated LP

4.4 Step One: Setting Up the Process

4.4.1 Initiation and Preparation of the Local Plan

A Local Plan must be prepared for all areas. The initiation, preparation and approval of a Local Plan are the sole responsibility of the District Assemblies at the local level. However, they may also be initiated by landowners or traditional leaders, government agencies, developers or corporations, and certified land use planning consultants.

The preparation of the Local Plan may be outsourced, with the District Assembly serving as the Client and the SPC providing leadership. The TSC is a technical committee of the SPC that is responsible for providing technical services in the preparation and implementation of spatial plans. A Local Plan must comply with the Zoning Guidelines and Planning Standards issued by Land Use and Spatial Planning Authority.

4.4.2 Setting Up the Plan Preparation Team

The Planning Team for the preparation of the Local Plan shall be the Technical Sub Committee (TSC) of the District. The members of the TSC are responsible for preparing the Local Plan and recommend SPC for approval. The SPC reviews the Local Plan, shaping the vision, objectives, alternative development scenarios and overseeing monitoring and evaluation of the proposed provisions. The membership of the TSC shall include:

- the head of the Physical Planning Department of the district;
- the District Development Planning Officer;
- the head of the Works Department;
- the head of the Roads Unit of the District Assembly;
- the district head of the Disaster Prevention Department of
- the District Assembly;

- one representative of the Lands Commission in the District;
- one representative of the regional head of the Environmental Protection Agency;
- the District Fire Officer;
- the head of the District Health Department; and
- two co-opted members at least, one of whom is the chairperson of a sub-metro or urban council as appropriate.
- A representative from any of the utility agencies or other relevant agencies may be co-opted, if required

4.4.3 Preparation of Work plan/Budget/Stakeholder Mapping/ Inception Report

The Planning Team, led by the PPD is expected to prepare detailed workplan (Expertise, timelines, equipment needed) and budget for the preparation on the Local Plan as an input for the Annual Action Plan. Also, the Team is required to review relevant policy documents, programmes and identify stakeholders that will directly or indirectly be affected by the Local Plan and their roles, for further consultations throughout the stages of the plan preparation process. The Team will further prepare an Inception Report (stating the objectives, methodology, timelines, background, etc.).

4.4.4 Initial Visit to Plan Area

It is essential that the Planning Team familiarize themselves with the plan area especially in relation to the main infrastructure, settlements and communities. The purpose of the visit is for the Team to gain familiarity with the plan area and engage key stakeholders concerning the project. The field visit should be undertaken in collaboration with the Traditional Authorities or other focal persons. Pictures should be taken during the field visits as they add complementary value to the collected data and provide grounds for revising existing information. This process also helps the planning team build networks with focal persons and community members for subsequent data collection.

4.4.5 Inception Workshop

A Local Plan should be prepared in consultation with relevant public and private institutions and other stakeholders. This is the first stakeholder consultation with the aim of making the intent of preparing the Local Plan known to the stakeholders, as well as present an inception report to the stakeholder. At this point, the Planning Team may request their support and commitment throughout the plan preparation process. The following may be considered:

- identified stakeholders and invite them to a stakeholder engagement;
- Select appropriate venue for the engagement if it involves two or three districts;
- Consider the use of local language as a means of communication, where applicable.

4.5 Step Two: Data Collection and Baseline Studies

4.5.1 Collection of Data

Data is required to assess the existing spatial situation of the plan area and is essential to the preparation of the Local Plan. Data may be collected from primary and secondary sources, qualitative and quantitative as well as spatial and non-spatial sources. These sources cut across various themes, including social, economic, environmental, gender, cultural, security factors, drawn from multiple institutions.

In view of the fact that such data is sourced from multiple institutions, strong collaboration is required. The data must also take into account current development plans and projects at the national, regional and local level which are relevant to spatial planning. Where necessary, funding or resources should be allocated for data acquisition. Importantly, the process should begin even if there are data gaps. Such gaps can be filled during future revisions, since the SDF is updated every four years.

4.5.2 Mapping of Spatial Data

For the Local Plan, it is necessary to generate spatial data to describe the characteristics of the planning area. With the help of orthophotos and other open-source data, the Planning Team is required to prepare a base map for the planning area. The list provided below may be varied according to the circumstances at the National, Regional or District level):

- **Characteristic 1: Physical and Natural Environmental Characteristics** of the Planning Area: digital elevation models, contours, water bodies, soil, climate.
- **Characteristic 2: Natural Protected Areas:** parks, reserves, drainage, flooding and seismic risk areas, degraded areas and hazards etc.
- **Characteristic 3: Population and Human Settlement characteristics:** population dynamics and population density; spatial structure, sizes and functions of human settlements, including hierarchy of human settlements, gender, ethnicity, tribal areas and language, tradition and religion, historic sites and culture, projected population of settlements, migration and development trends.
- **Characteristic 4: Economic activity:** Agriculture, Industry, Commerce, services, tourism, employment, local economic development, etc.
- **Characteristic 5: Social Development** – health, poverty, education, gender, conditions, accessibility and availability of facilities.
- **Characteristic 6: Infrastructure:**
    - Road Infrastructure: types of road network and hierarchy, conditions of the road, length of roads, rail
    - Public Transport: location of transport terminals
    - Air: location of airport and airstrip and amenities
    - Water Supply: Types of water infrastructure and accessibility
    - Sanitation (Solid waste, Sewerage and Storm Water): Types of Sanitation facilities and accessibility in the planned area

- Energy: Energy for cooking and Energy for lighting- Distribution of main lines, Location and accessibility
- ICT and Communication: communication installations and accessibility

- **Characteristic 7: Population / Settlement Access to Facilities:** Access to primary education facility, secondary education facility, medical facilities, food markets, improved water sources, improved waste disposal, electricity and public transport.
- **Characteristic 8: Governance and Security:** Police stations, military, fire service, prison service, immigration service, private security organisations etc. Central and Local Governance entities such MMDAs, MDAs, Area Councils and Unit Committees etc. Civil Society organisations and traditional leadership.

4.5.3 Data Requirements for Local Plan

Data collection should be prioritized so that appropriate data necessary for identifying, analyzing and discussing relevant spatial issues can be collected. The data collection should be coordinated with other relevant agencies using their data where it exists. A list of "data required" is illustrated in Table 4.2. Some social and economic data may be mapped by referring to the 'enumeration areas' which have been used for its collecting. The National Census will be a principal resource in this.

Table 4.2: Physical and Quantitative Data and Sources

No.	Data Required	Data Source	Comments
1	**Base Map** • Administrative Boundaries • Existing Roads • Rail lines • Waterways, channels, main • drainage systems, rivers, • water bodies, flood zones, • Coastline • Power transmission lines • Existing development (Built or partly built up areas) • Available Topographical Map/relief • soil	• Institutional sources (eg. Survey and Mapping Division of Lands Commission) • Recognized sources	

No.	Data Required	Data Source	Comments
2	**Population Data** • Population by different census districts • Population growth and distribution • Spatial Structure • Sizes and functions of human settlements, • including hierarchy of human settlements • Age pyramid for each sex • Population projections • Household size • Household size projections • School age children • Historical population trends • Urbanization (rural-urban continuum) • Settlement distribution • Productive population • Migration trends • Population density	• GSS • MMDA-DPCU • Academia and Research Institutions	The data on population should be collected from GSS and validated at the national, regional and District levels in line with the planning year
3	**Income/Employment** • Employment by sector • Employment projections • Space projections, by employment • Sector and number of employees • Household income	• Ghana Statistical Service • MMDA-DPCU • Labour Department • Ministry of Gender, Children and Social Protection (Ghana Household Registry) • GSS	Consider space needs for different job types
4	Major Allodial and state land ownership boundaries • Traditional State	• House of Chiefs • Lands Commission • OASL • Customary Land Secretariat	Ownership of land helps identify potential locations for additional government structures, supply and land economy issues.

No.	Data Required	Data Source	Comments
5	**Residential Areas** Housing and neighbourhoods • Classification of existing • residential areas as: • High density Area Medium Density Area Low density Area • Description of neighbourhoods or communities regarding: Actual occupancy (households/per unit / compound) • Housing conditions (overcrowded, unsanitary, structurally unsafe etc) Preferred occupancy • (households/per unit/ compound) • Projections of housing demand taking into account present shortage, housing conditions and growth • Land requirement for housing • Housing density	• Census • MMDA-DPCU • Survey • Satellite and aerial photography (number of houses). • LUSPA Standards • Use LUSPA Classifications and Styles	Generally household sizes are diminishing, so the existing supply of housing land may be inadequate even in the case of zero population growth. Land projections should take into account population growth and at least the need for about 30 percent more land than what is actually occupied for the market to work
6	**Economic Spaces** • Economy by sector (Industry, Service, Commerce, Agriculture) • Present main economic locations analysis of all sectors and the relative efficiency of the use of the land where presently located	• MMDA-DPCU • Commercial associations, Surveys • Satellite and aerial photography • Use LUSPA Classifications • and Styles	While such surveys have not been carried out, much of this will need to be collected from organizations representing the commercial sector and market vendors.

No.	Data Required	Data Source	Comments
7	**Civic and Culture** • Health Facilities • Existing Health Facilities • Plans for extension or new hospital or other health-related facilities. • Implications for land requirement	• Ministry of Health, • Ghana Health Service, Regional] • District Departments of Health, Health Agencies	The objective is to find out whether additional land should be identified for new medical facilities, outside of existing hospital grounds and not including small clinics that are part of areas of housing or commercial development
8	**Admin. Developments** • Public facilities and plans for • extension and new facilities • Land requirements outside • existing compounds etc. • Private Sector Service Offices	• District Assembly, • RCC • Government agencies • Private Local Service • Sector	Identify new land needs
9	**Tourism** • Hotel, Guesthouse, Restaurant and Tourism Information facilities • Tourist Attractions • Museums, cultural places, traditional palaces, shrines and village settings and other historic sites • Number of tourists and outside visitors visiting area over the past five years • Projected growth in Tourists/ • outside visitors • Type of tourists/visitors • Projections of hotel accommodation • and type of accommodation required • Projections of land requirements	• Ministry of Tourism, • Ghana Tourism Authority, • Ghana Tourism Development Company • MMDA-DPCU, Local Hotels • Local Tourist Agencies and Associations	Land requirement for tourism growth

No.	Data Required	Data Source	Comments
10	**Culture & Worship** • Museums • Historical Places • Chiefs' palace • Durbar grounds • Proposals for development of seminaries, convents, mosques, monasteries	• Survey of historical • religious leaders and traditions • MLGCRA, • Ghana Statistical Service, • Religious Associations, MMDAs, • Registrar General, Survey of religious leaders	The objective is to find out whether additional land should be identified for new medical facilities, outside of existing hospital grounds and not including small clinics that are part of areas of housing or commercial development
11	**Education** • Capacity of existing, in particular Senior Secondary Schools and Higher education institutions. • Based on population projections, • need for additional schools • Plans for expansion of existing schools and tertiary educational institutes • Plans for location of Tertiary • Educational institutes	• Ministry of Education, • Ghana Education Service • Survey of schools • Universities and other educational facilities such as vocational training centers etc	The main concern is the land requirement for secondary schools and tertiary educational institutes, which tend to be substantial land users. Schools provided to serve just the local community (primary schools and kindergartens) are part of the residential areas and not identified at this level of planning
12	**Sport & Recreation** • Major Recreational Area such as sport field, stadium, Sport's Club, Swimming Pool Golf, Amusement Park, Zoo Parks • Cemetery • Protection Area with public Access	• District Assembly • Ministry of Sports and Youth Development • National Sports Authority • Ministry of Tourism • District Tourism office • EPA	The main concern is to identify, analyze recreational potential and public accessibility

No.	Data Required	Data Source	Comments
13	**Industry** • Light Industrial Areas • Small scale light industry such as Specialized Electronic, Medical, Food Processing, Service workshops and artisan production including fuel filling stations. • Heavy Industry such as big scale manufacturing, assembly of machinery, vehicles and heavy equipment, • Noxious and Hazardous production regarding fuels, explosives, poison chemicals, refining and galvanizing Industry, cement production, slaughterhouse, vehicle repair workshop • Mining and Extractive Industrial including rock, sand, clay, mineral ore and precious stones	• National Industrial • Census • Government Offices • EPA, • MMDAs- DPCU, • Survey • Satellite and aerial photography, • LUSPA Standards • Use LUSPA Classifications and Styles	The overall scope is to locate the productive activities according to functions, accessibility and environmental risks to be used for planning of development areas and employment opportunities as well as protection of the population and the natural environment.
14	**Security Uses** • Areas for military purposes, prisons and police barracks and stations and associated uses	• Government Institutions • MMDAs- DPCU, • Site visits to the facilities	Site visits recommended

No.	Data Required	Data Source	Comments
15	**Transportation** • Road Network – approved (planned) • and existing: • Motorway National Highway Regional Major Arterial • District or Municipal Arterial • District or Municipal Collector Road • Local Road • Bus routes and terminals • Rail Network • Existing rails and land reserved for future lines • Water Transport • Ferries and Harbours • Including fishing harbours • Airports and landing strips • Public Transport • Non-motorized Transport • Conditions of Transport Infrastructure	• Ghana Highways Authority, • Dept of Urban Roads, • Department of Feeder Roads • Ghana Railway Authority, • Railway Development Authority, • Ghana Airport Company Limited, • Ghana Civil Aviation Authority, • Ghana Maritime Authority, • GPHA, • VRA, • Transport Unions • Ghana Shippers Authority • Satellite and aerial photography. • Field survey	Road hierarchy and indication of functionality and maintenance, reservation for future road extensions Identify stations, spot data
16	**Traffic Analysis** • Analysis of traffic flows at different times of • day and in each direction, • Projected traffic flows for period of plan • Projected road sizes (and hence need to • upgrade or develop new roads)	• Ministry of Transport, • Department of Urban Roads, • Highway Authority, • Research Institutions and academia, • MTTD – Police Service, • Transport Unions, • DVLA, • MMDAs, • Traffic Surveys,	Required for infraStructure Planning
17	**Water Supply** • approved extensions, • Water treatment plants	• Ghana Water Company and Contractors, • Community Water and Sanitation Agency, • Small Town Water Systems, • Water Resources Commission	Pipe size should be indicated where available the condition of the pipes. Further information will be required on the supply of water for each part of the system, tank and wells and existing extension plans Main distribution network classified by capacity

No.	Data Required	Data Source	Comments
18	**Electricity**	• Survey and Mapping • Electricity Company Ghana and other Power Authorities (GRIDCO, VRA)	Map full grid layout
19	**Telecommunication** • Telecommunication Masts, • Radio and television, • optic fibre lines	• Television and Radio • Ministry of Communication, Digital Technology and Innovation, • National Communication Authority, • Ghana Chamber of Communication, • GIFEC, • Tele Communication agencies	Spot reference and location
20	**Sanitation** Sewerage System Network • Sewage Drainage System – primary network only • Sewage Treatment Plant if existing or planned Solid Waste • Refuse Collection Point • Land Fill	• MLGCRA, • MMDAs, • wWaste agencies	Main systems of sewage disposal exists in very few places in Ghana but may be developed in newer planned urban
21	**Agriculture** • **Land Evaluation** (based on soil suitability analysis): • Areas with high productivity potential for agriculture, crop production and animal production	• Ministry of Food and Agriculture (MoFA) • • Millenium Development Authority (MiDA)	Identify suitability of land for different agricultural uses and the quality of the land (i.e. potential productivity of land in agricultural use or yet to be exploited). Note that this is information to be obtained from the district agricultural department and updated with other project documents,(e.g. MiDA work)

No.	Data Required	Data Source	Comments
22	**Forestry** • Forestry Reserves • Plantations • Conservation areas	• Forestry commission, • Forest Research institute (FORIC)	
23	**Water Bodies**	• Survey and Mapping Division of Lands Commission. • Ghana Geological Survey Authority • MMDAs • aerial photography • Topographic Maps • Water Resources Commission • Ghana Hydrological Authority • Other levels of Plan. Field survey	
24	**Slope/Fault Zones** • Fault lines • Areas of unusable slopes and threatened by unstable slopes above sites	• MMDA • Ghana Geological Survey Authority	
25	**Flood Zones**	• NADMO • Ghana Hydrological Authority • Ghana Meteorological Authority • MMDAs • Satellite and aerial photography.	Note frequency and severity and projected trends
26	**Areas of Ecological Importance and sensitivity including Forest Reserves**	• EPA, • Forestry Commission, • Forest Research Institute	Note species under threat
27	**Mineral Resources**	• Mining companies, • Minerals Commission, • Ghana Geological Survey Authority, • field survey etc	Coordinate with extractive industries

4.6 Step Three: Situational Analysis, Development Challenges and Opportunities

4.6.1 Analysis of Existing Situation

A Local Plan has a major objective of promoting improvements in the local community and coordinating local land use to the benefit and satisfaction of all. At the Situational Analysis stage, prevailing conditions/status of all sectors which need to be assessed are prepared with stakeholders and summarized in a Situational Analysis Report. The sectors to be considered include:

- Population (population growth and distribution, projections, rural and urban settlement patterns,)
- Natural Environment/ Biodiversity (land cover status and change, minerals, ecological zones, types and conditions, protected areas, natural heritage assets, built heritage assets)
- Climate Change (causes, trends and forecasts, mitigation measures, spatial impacts)
- Social Development (education, health, housing, gender)
    - housing conditions (dwelling types, conditions, housing density, occupancy, tenure status, housing delivery)
    - Health (categories, conditions and accessibility of health facilities and their spatial distribution)
    - Education (Categories, condition and accessibility of educational facilities, enrolment levels)
    - Security (Identification of security agencies, their locations and their roles
    - Gender (discuss attempts to mainstream gender in land use planning)
- Infrastructure
    - Transportation (road, public transport, railway, ports, airports) -: Determine the length of the transportation and its categories, and conditions of the facilities
    - Energy :

      (i) lighting- Electricity-determine the high- and low-tension lines, location, no. and capacity of transformers, and the use renewable energy
      (ii) cooking: Types and availability of the energy
    - Sewerage and Sanitation (solid and liquid waste (sewerage) disposal, condition and accessibility of the facilities)
    - Water Supply Infrastructure (sources of water supply, conditions, demand distribution and storage)
    - Telecommunication (Available telecommunication networks, communication centers and their locations)
- Economic Development (employment, poverty, formal and informal sectors)
    - Agriculture (food crop production, cash crop, livestock and poultry production, aquaculture, agribusiness)

- Industry
- Commerce and Services
- Tourism
- Local Economic Development

The following may guide the analysis of the existing situation:

- Factor in data gathered from all sources including policy documents, MTDPs and primary data from the field in relation to the plan area on social, economic, demographic and spatial issues
- Clean and assess spatial data to reflect the factual existing situation, key issues/ challenges and opportunities within the plan area.
- Consider the initial mapping outputs, identify development issues/problems, needs and opportunities, and policy goals.
- Use participatory analysis tools such as SWOT, POCC, among others and display outcome of analysis in text, diagrams, charts, graphs, pictures, maps, etc.
- Generate thematic maps for each sector (education, housing, health, human settlement, relief, drainage, etc).

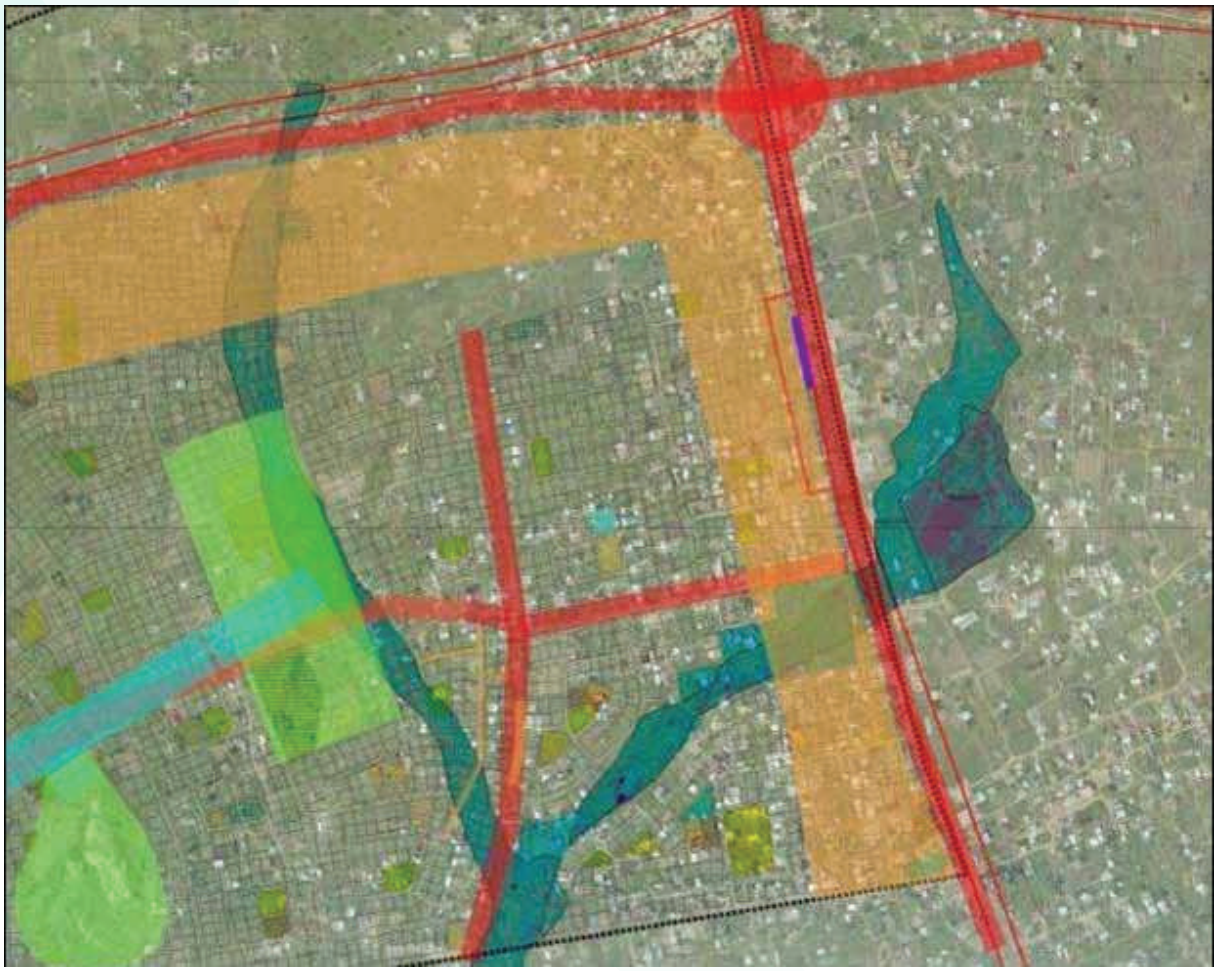
4.6.2 Mapping of Existing Situation

At this stage, all existing spatial elements, both built and future proposals, should be indicated on the map. The following must be given consideration:

- Existing plot/land rights boundaries and main infrastructure
- Local Plan or Structure Plan proposals including population and employment projections, settlement hierarchy and linkages
- The existing use of the land, including traditional settlements, agriculture, natural features, contours, water bodies, flood prone areas, etc

All the above should be marked on a plan which will in turn highlight areas for subdivisions in the area. Depending on the overall size of the settlement, internal circulation systems may then be sketched eg road and rail network, and the landscaped/pedestrian network (which may also include water body buffers and any natural features).

Figure 4.1: Key elements sketched onto aerial photo and existing sector plan



In forming these initial proposals, consider the aspect, orientation regarding sun paths and prevailing wind, accessibility for drainage (referring to the contour map), relationship between new and existing settlements and lands, and the overall context of the Local Plan area including any particular elements, linkages or other matters specific to the area. The map depicting the existing situation further considers the constraints, challenges, opportunities and potentials in developing the plan area. This mapping exercise will inform the data analysis stage, thus computing gross housing densities, populations and type, size of associated non-housing uses, etc.

Figure 4.2: A first sketch showing broad land uses

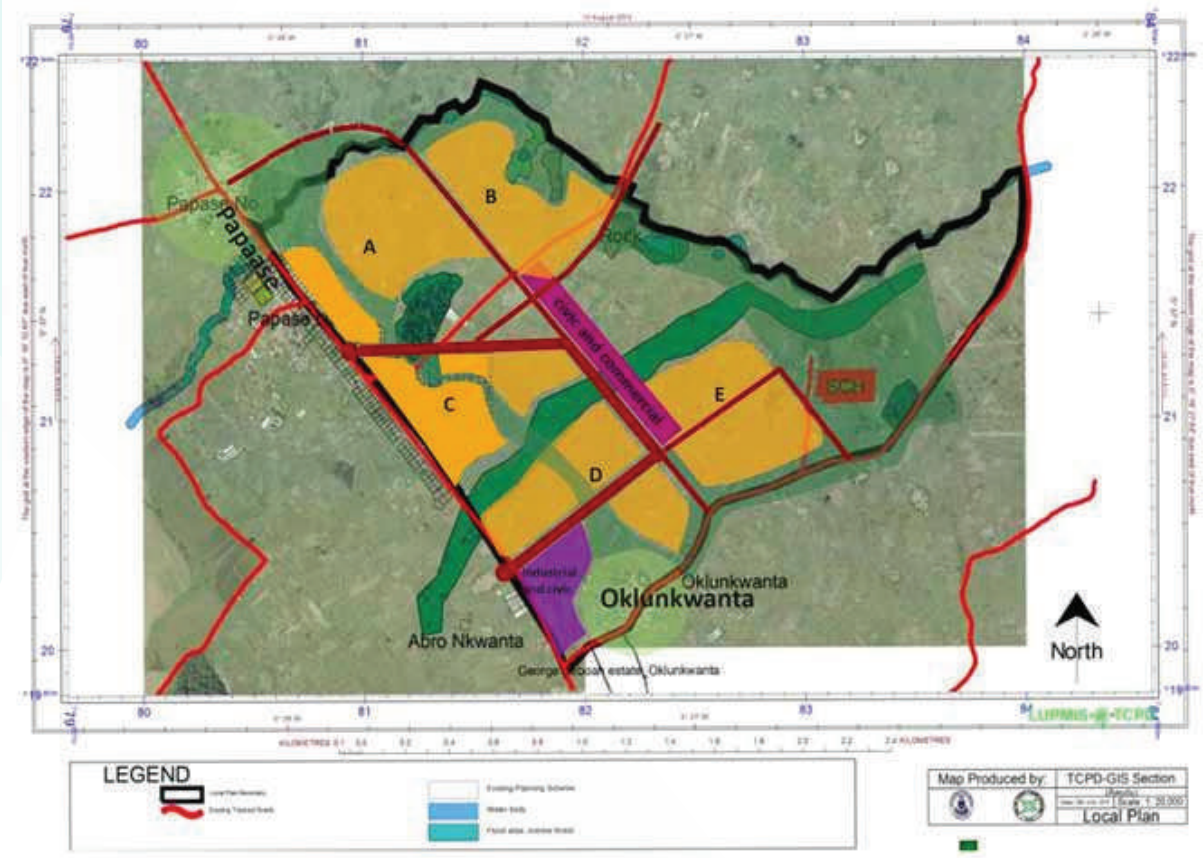
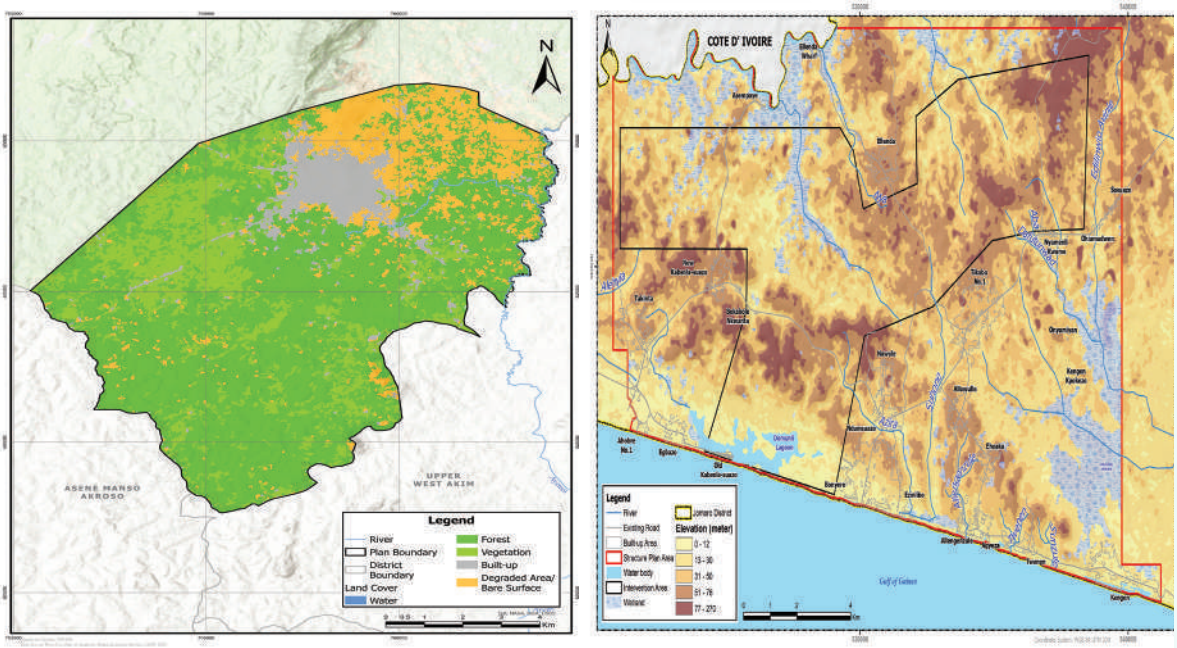


Figure 4.3: Map showing combination of layers



4.6.3 Calculating Populations and Facilities

A measure of the size of the area designated for the Local Plan will be the basis for estimating it's capacity in terms of the numbers of houses/apartments and consequent populations which it can hold, depending on the desired densities. This in turn will give the extent of non-housing uses such as schools, clinics or open spaces which are required according to Government of Ghana standards. Although these are laid down in the Structure Plan, they will need to be detailed in the Local Plan. The procedure is as follows:

I. Measure the area of land within the Local Plan boundary in hectares;
II. Deduct the area of any watercourses, feeder roads, land unusable for other reasons such as excessive slope, protected areas (environmental and cultural), other existing or proposed uses which do not fall into the category of neighbourhood uses;
III. Deduct 35% of the resulting area for non-housing uses;
IV. Define a preferred mix of low, medium and high density areas within the Local Plan (e.g. 40% high, 35% medium and 25% low density). Each will have a respective number of houses per hectare;
V. Decide on the number of households per house, and the number of people per household which will apply in the area;
VI. Using the above variables, calculate the estimated population;
VII. Use the estimated population to compute the required number and land use needs of non-housing uses (schools, health centres, recreational, community, commercial and employment sites).

4.6.4 Applying Population Sizes and Number of Facilities to the Draft Plan

The above draft calculations can then be checked against the areas of estates which have been identified in the first sketch layout (see step 3.05 above). The area of these, which may be of different sizes, can each be measured, and a similar determination of populations and uses made for each. In this way it can easily be seen how the facilities can best be distributed, either one for each estate, some shared between one or more estates, or some central facilities for the whole Local Plan area.

There will be some decisions to be made about the definition of the areas for estates and the consequent populations and facilities. The sub-divisions and areas for estates which have been initially used can be adjusted when the numbers are known.

It is important also to recognize that a Local Plan area probably does not have to house the maximum number of people which it is capable of housing. Efficient use of infrastructure can be achieved by creating dense and highly efficient layouts within each estate, but these may be interspersed by landscaped areas, or farming or 'urban farming' or other uses. The expectations of stakeholders, especially landowners, will be important here.

It should, however, be said that most of the actual current layouts on the ground are either in the form of small, very dense and completed gated communities by developers, or highly scattered settlements of incomplete individually owned houses, some of which are covered by Sector Plans.

4.6.5 Mapping of Existing Land Uses (Registered Ownerships and Permitted Development)

It will be necessary to map existing land ownerships, so that the proposals will be aligned with what has been registered. This will need to be done in collaboration with the Customary Land Secretariat, OASL and the Land Registration Division. Existing Development Permits and Planning Permits will also need to be mapped. This will be particularly relevant to those who have acquired land for development or uses which will be retained.

The design of the Local Plan will need to be adjusted to include established boundaries, uses and developments which will remain. However, it should be recognised that there may be established uses and boundaries which conflict with the Local Plan, and there may be occasions on which compensation will have to be considered. There may be the need to minimise such occasions by adjusting the Plan.

4.6.6 Stakeholder Validation Consultation

The Draft Situational Analysis Report, which is also the key deliverable at this stage of the process, must be prepared and presented to stakeholders for their validation and endorsement for the next stage of the process. The draft may be published after stakeholder validation of the existing situation. The following may be considered:

- Invite key stakeholders that have much knowledge and interest in the planning area;
- Present the Draft Situational Analysis (which contains analysis of data gathered from the plan area) to the stakeholders;
- Adopt appropriate tools for consultation;
- Use simple terms and language.

4.7 Step Four: Vision, Goals, Objectives and Strategies

4.7.1 Vision

The vision for the Local Plan area may emanate from the existing SDF or Structure Plan of the plan area. However, the formulation of the spatial vision, Goals, Objectives and Strategies should be done with stakeholders. The following should be considered in formulating the spatial vision. The vision should:

- articulate the spatial aspirations for the future development of the planning area;
- be a broad statement expressing the desired pattern and growth of the plan area;
- be memorable, highlighting the uniqueness of the planning area while consolidating its development strengths and opportunities;
- be holistic, comprehensive and integrated, encompassing spatial, economic, and environmental dimensions;
- remain realistic and sustainable.

4.7.2 Goals

The formulation of goals for the Local Plan should be aimed at actualizing the spatial vision. The following should guide the development of goals for the Local Plan:

- Broad Goals in the National, Regional and District policies (eg. Existing SDF or Structure Plan of the Area, District Medium Term Development Plans) should guide the formulation of Strategic Goals;
- Strategic Goals to realize the vision should be all-encompassing and cut across all sectors.

4.7.3 Objectives for the Local Plan

The formulation of objectives for the Local Plan should be aimed at actualizing the strategic goals formulated. The following should guide the development of objectives for the Local Plan:

- The objectives should emanate from the strategic goals;
- The objectives should address the identified key issues, development challenges and opportunities;
- The objectives should actualize the strategic goals within the timeframe for the Local Plan;
- Develop realistic and SMART objectives in actualizing the vision and goals of the Local Plan.

Table 4.3: Framework for Developing the Vision, Goals, and Objectives

Component	Description	Guiding Principles
Vision	challenges and opportunities and directs proposed interventions.	- Clearly define the desired future spatial development of the planning area. - Broadly set out expected growth patterns and spatial development trajectory. - Clear, inspiring, and reflective of the area's uniqueness, strengths, and opportunities. - Aligned with Regional or Sub-National Spatial Development Frameworks. - Holistic, integrating spatial, economic, social, and environmental dimensions. - Realistic, achievable, and sustainable.
Goals	Broad strategic directions that translate the vision into overarching sector-wide ambitions. They guide policy, investment, and development actions.	- Drawn from National, Regional, and District policy frameworks (e.g., MTDPs). - Comprehensive and cross-sectoral. - Directly linked to the realization of the vision.

Component	Description	Guiding Principles
Objectives	Specific, measurable targets and actions derived from the strategic goals. They address identified issues and guide implementation within the plan period.	- Derived from strategic goals. - Address key issues, challenges, and opportunities. - Time-bound and aligned with the Structure Plan's implementation period. - SMART (Specific, Measurable, Achievable, Realistic, Time-bound).

4.8 Step Five: Development of Scenarios and Selecting a Preferred Option

4.8.1 Development of Scenario

Scenario development is an ideation process that explores multiple existing and future land-use proposals designed to advance the goals of the Local Plan. It allows the Planning Team to share with stakeholders their perspectives on spatial, land-use, and development options. Scenarios are not forecasts or predictions but tools to connect spatial planning with community needs and aspirations. They illustrate possible future activities based on current conditions, emerging trends, or regional goals and community values. Scenario development should be prepared with stakeholders, based on the vision of the Local Plan.

4.8.2 Guiding Principles

The development of guiding principles is informed by the client's brief, current policy documents and proposals, the comments arising from the stakeholder consultations and the Planners' own experience. The guiding principles are shaped by design principles and will serve as the course of action for future development. They may stand alone or be incorporated in the relevant section of the proposal. The aim of the guiding principles is to make the plan sustainable. Some of the key design principles that guide the achievement of the guiding principles are indicated in Table 4.4

Table 4.4: Summary of Design Principles

Design Principle	Considerations
Convenience/accessibility	access to services, minimum travel distance to major destinations, minimum travel time to low speed environment
Economy	achieving an even distribution of resources, activities and economic distribution
Aesthetics	the plan and the environment within which the plan is being implemented should be aesthetically pleasing to the eye

Design Principle	Considerations
Integration	individual short term decisions should conform to strategic long-term goals
Inclusivity	Involvement of beneficiaries including the vulnerable groups
Safety	ensures the distribution of activities in space does not cause harm to the people and the environment

4.8.3 Developing the Local Plan Scenarios

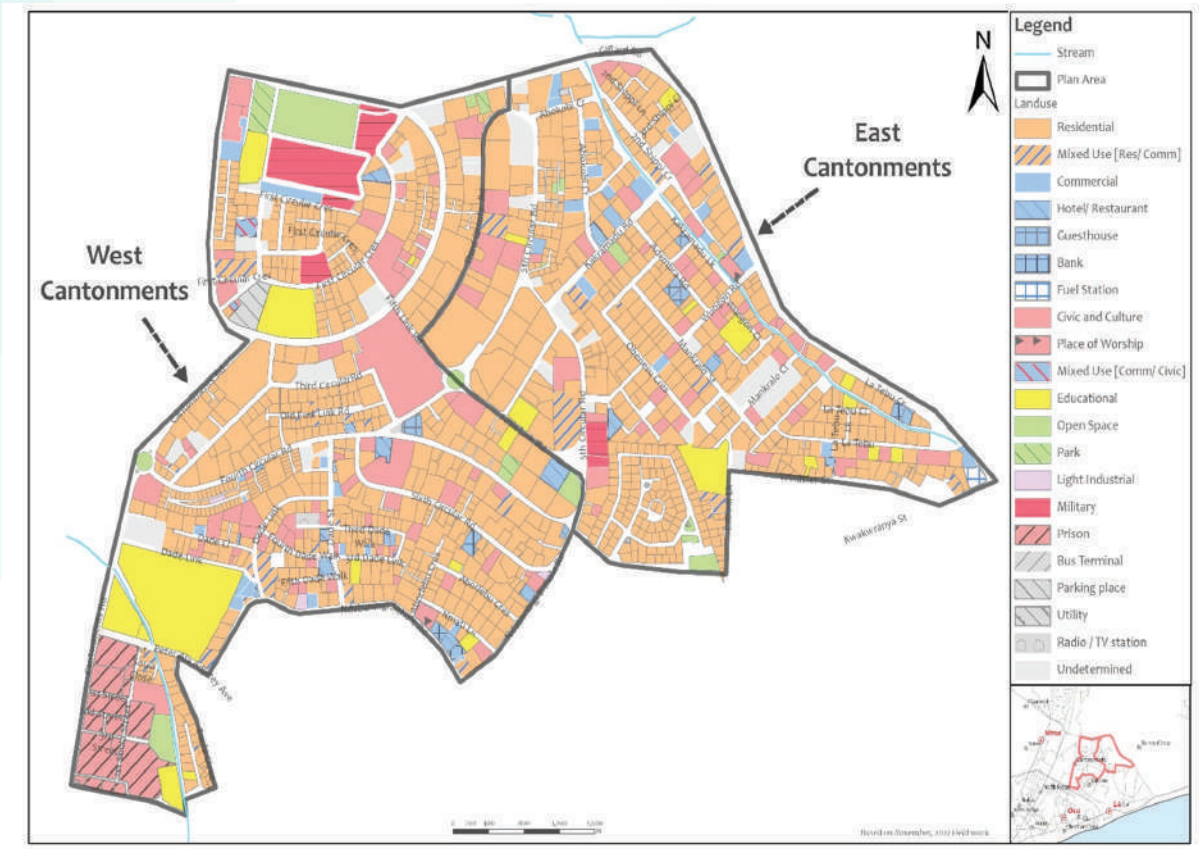
In developing different scenarios to guide the spatial development, the Planning Team in consultation with stakeholders should prepare a minimum of two implementable and sustainable scenarios. The following factors should be considered:

- Incorporate the existing situation, vision, goals and objectives to inform the designing of the scenarios;
- Ensure alignment with existing national, regional or district policies, development perspectives and proposals;
- Clearly describe each scenario, underpinning principles and its proposed spatial development pattern;
- Establish objectives to guide each scenario;
- Identify the unique features and proposed interventions of each scenario;
- Highlight the strengths and weaknesses of each scenario for comparative assessment;
- Be guided by the Zoning Guidelines and Planning Standards prepared by Land Use and Spatial Planning Authority

The land use distribution will consider various land uses identified based on defined criteria. It focuses on targeted infrastructure, principles that guide the design of the Local Plan, and the distribution of land uses. This indicates the spatial distribution of land uses and gives credence to the function of the Local Plan area. The proposals in the Local Plan are based on the general planning principles for designing (health and safety, economy, convenience, harmony and aesthetics), together with other relevant guidelines and standards that impact the plan. Street naming and property addressing should be incorporated in the design of the Local Plan.

The Local Plan must follow the zoning designation as prescribed in the Structure Plan; the Zoning Guidelines and Planning Standards prepared by Land Use and Spatial Planning Authority and provide additional conditions that any development in the area must follow. In cases where there is no Structure Plan, the Local Plan will give zoning guidance to the preparation of the Structure Plan.

Figure 4.4: Example of Existing land Use Map



4.8.4 Stakeholder Consultation to Select Preferred Option

The Local Plan scenarios will be subject to stakeholder consultation. Based on the strengths and weaknesses as well as other considerations for each Local Plan scenario, a preferred option will be agreed upon at the consultation meeting. A full Report should be made on the consultation which details all discussions, comments, analysis, questionnaire results and list of participants. This is important as evidence of the reasoning behind the plan in any future disputes or discussions of proposals.

4.8.5 Firming up the Preferred Option

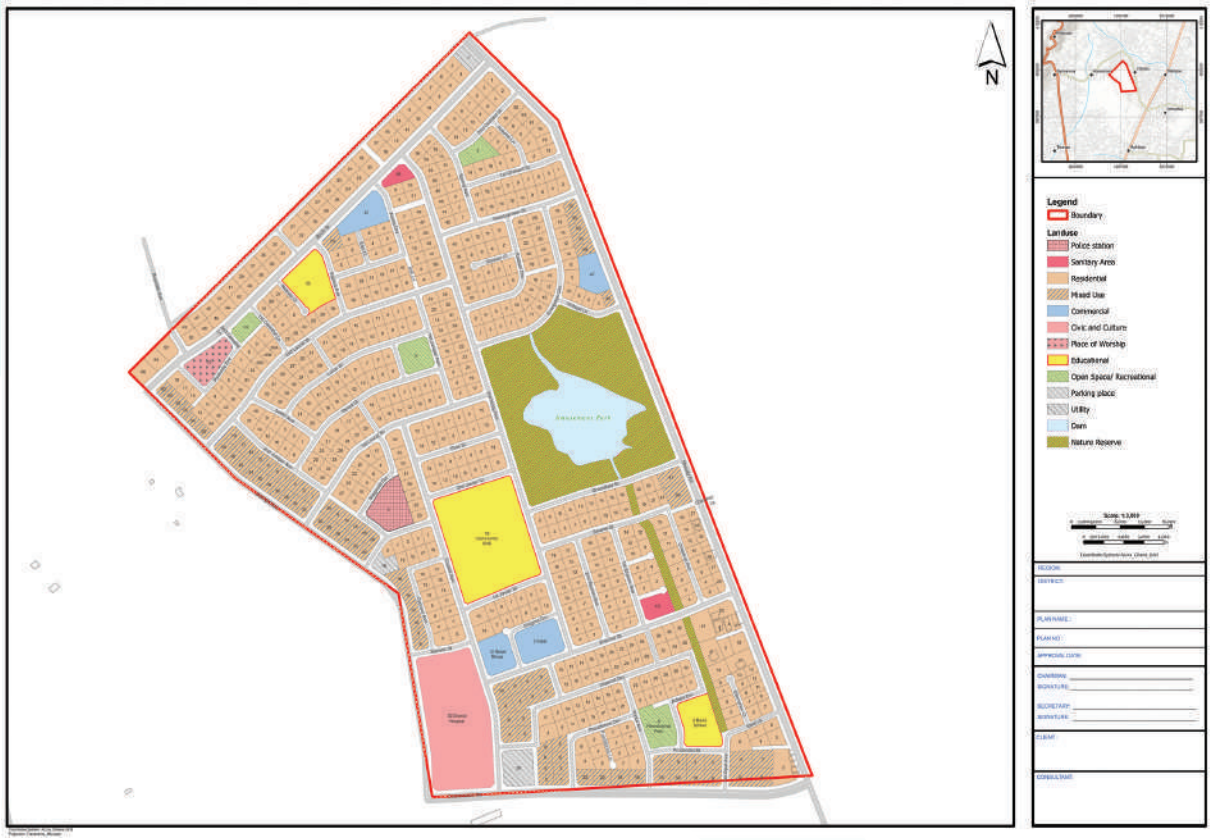
At this stage, the draft Local Plan is finalised, taking into account the realities of existing land uses, ownerships, residents/other users and the general comments and inputs from the stakeholder consultation. The plan preparation Team is expected to meet to discuss the findings of the consultation to firm up the preferred scenario and come up with decisions on the way forward. The following may be considered in firming the preferred scenario:

- Describe the strengths and weaknesses of the preferred scenario;
- Justify the selection of the preferred scenario;
- Identify opportunities for the preparation of lower level spatial plans;

4.8.6 Developing Land Use Proposals

The Planning Team at this stage is expected to develop land use proposals (including maps) for the preferred Local Plan. Land use proposals should be in line with the zoning guidelines and planning standards.

Figure 4.5: Example of Draft Local Plan



4.9 Step Six: Strategic Environmental Assessment (SEA)

4.9.1 SEA for the Local Plan

Strategic Environmental Assessment (SEA) shall be prepared for a Local Plan area, in the absence of an SDF and Structure Plan. It should consider the environmental, economic, social, cultural and intergenerational consequences and potential benefits of a plan. The SEA should ensure that the environmental impacts are taken into account at the earliest possible stage of decision-making. There is the need to analyse and evaluate the environmental impacts of regional planning and sectoral plans as well as planning alternatives. The Strategic Environmental Assessment (SEA) process must be initiated at the commencement of the Local Plan preparation process. The preparation of the SEA shall be guided by the Land Use and Spatial Planning Act, 2016 (Act 925) and shall comply with the Strategic Environmental Assessment Guidelines issued by the Environmental Protection Authority (EPA).

4.10 Step Seven: Implementation Plan (Phasing, Financing and Investment)

4.10.1 Action Plan

In order to implement the Local Plan, the necessary activities must be identified based on the proposals outlined under the Local Plan. The consequent list of activities can then be structured within phased plan periods. This process makes the Local Plan practical and attainable by establishing clear and realistic timelines. It also defines the responsible agencies for implementation (lead and collaborator), cost, source of funds and the timelines.

❖ **Developing Key Actions**

In developing key actions from the Local Plan proposals, the following issues need to be considered:

- Identify key actions in the proposals for each sector;
- Describe identified key actions for each sector that are implementable;
- Identify priority actions for each sector;
- Identify the potential sources of funding for implementation of the actions/activities within the lifespan of the Local Plan.

❖ **Estimated Cost of Actions/Activities**

The activities developed should be costed and the following should be considered;

- Every action should be costed or budgeted if possible;
- The estimated cost for each of the identified actions should be realistic even though it may not be accurate;
- All the potential sources of funding for the implementation of the actions should be identified;
- Estimated costs for the identified actions/activities should be done in United States Dollars to cover for any inflation and depreciation of the local currency;
- High-Cost actions such as capital investment projects should be reserved for long-term Phasing;
- Low and medium cost actions should be reserved for short to medium term phasing.

4.10.2 Phasing

The proposals in the Local Plan should be factored into the annual action plans of the District Assemblies. The following should be considered:

- The proposals should be phased for the 5-year lifespan of the Local Plan;
- Each proposal should have a timeline reflecting the order of priority of the identified actions;
- Each proposal should have an estimated cost;
- The proposals can be categorized as short and medium term.

4.10.3 Implementation Plan

The implementation plan for the Local Plan proposals shall be prepared in phases. This should serve as a guide for the spatial development proposals in the Annual Action Plans. In developing the implementation plan, there is the need to identify the following:

- lead organisation(s) responsible for securing funding and leading the implementation of the plan;
- potential options for capital investment financing and how operations and maintenance for assets will be financed;
- priority actions and activities for each sector;
- potential sources of funds for implementation of the proposals within the lifespan of the Local Plan
- proposals that will involve investment in the creation of assets (roads, buildings, forests, land acquisition, major equipment, etc);
- proposals that will be implemented as a “project” or as a group of similar investments;
- priority investments/projects or activities;
- proposals/actions which should be phased to cover the lifespan of the Local Plan;
- costing of proposals/actions which should be realistic and feasible within the lifespan of the plan.

Table 4.5: Example of Implementation Plan

PROGRAMME	SUB-PROGRAMME	BROAD ACTIVITIES	LOCATION	TIME FRAME					ESTIMATED COST	RESPONSIBILITY	
				Y1	Y2	Y3	Y4	Y5		LEAD	COLLA-BO
GOAL: CREATE OPPORTUNITIES FOR ALL											
EDUCATION AND TRAINING											
Social Service Delivery	Education Youth and Sports Service	Support the preparation of ADEOP and data collection.	Gwollu	X	X				20,000.00	DA	GES
Social Service Delivery	Education Youth and Sports Service	Construction of 2No. 3-unit Class room Block at Gbele	Gbele		X	X	X	X	200,000.00	DA	GES
Social Service Delivery	Education Youth and Sports Service	Support Independence Day celebration	Gwollu		X	X			15,000.00	GES	DA/GES
Social Service Delivery	Education Youth and Sports Service	Support for District Education Oversight Committee (DEOC)	Gwollu		X	X	X	X	10,000.00	GES	DA
Social Service Delivery	Education Youth and Sports Service	Completion of 1no.3-unit Classroom Block at Niator	Niator		X	X	X	X	12,514.28	GES	DA

4.11 Step Eight: Monitoring and Evaluation Plan

4.11.1 Monitoring and Evaluating the Local Plan Implementation

The Local Plan should have a Monitoring and Evaluation Plan to measure the level of implementation and impacts of the plan. To monitor and evaluate the implementation and performance of the Local Plan, it is necessary to identify the goals, objectives, activities and inputs required for implementation of the Local Plan.

Subsequently, indicators must be developed to reflect these goals and objectives to be achieved. Monitoring serves as a management tool enabling the responsible authorities to record, check and correct the implementation process of spatial planning at the three levels of the planning system. Monitoring and evaluation shall follow the guidelines stipulated by the NDPC for the Local Plan.

4.11.2 Monitoring

Monitoring can be reported on a monthly, quarterly, semi-annually and annual basis and will, as far as possible involve relevant agencies and existing data collection systems (Minutes of meetings, Meeting agendas, Departmental reports, physical inspection, etc.).

4.11.3 Key Considerations in Developing the Implementation Plan

In developing the implementation plan, there would be the need to identify the following:

- lead organization (s) that will have responsibility for securing funding and lead in the implementation of the plan;
- potential options for capital investment financing and how operations and maintenance for assets will be financed;
- priority actions and activities for each sector;
- potential sources of funds for implementation of the proposals within the lifespan of the Local Plan;
- proposals that will involve investment in the creation of assets (roads, buildings, forests, land acquisition, major equipment, etc);
- proposals that will be implemented as a “project” or as a group of similar investments;
- priority investments/projects or activities;
- Proposals/actions which should be phased to cover the lifespan of the Local Plan;
- Costing of proposals/actions which should be realistic and feasible within the lifespan of the plan.

Table 4.6: Example of Monitoring Matrix

Goal: Promote sustainable and harmonious development of human settlements **Linked Objective:** Facilitate the implementation of the Faecal Sludge Management Project and improve upon storm water infrastructure										
Activity: Create two (2) retention ponds in the municipal capital to absorb run-offs										
Indicators	**Indicator Definition**	**Indicator Type**	**Baseline 2024**	**Target Years**				**Disaggregation**	**Monitoring Frequency**	**Responsibility**
				2025	**2026**	**2027**	**2028**			
Number of retention ponds created	Measures the number of retention ponds created	Output	0	0	0	0	0	- Nkawkaw	Annually	KWMA
Goal: Forster the necessary conditions for the local economy to thrive, propel growth and provide sustainable employment opportunities **Linked Objective:** Facilitate the establishment of 10 local manufacturing industries by 2045										
Action: Facilitate the establishment of a chicken processing factory at Oframase to boost the poultry industry										
Percentage of construction attained	Measures the percentage of construction attained	Process	10	10	20	20	20	-Oframase	Annually	PPP
Action: Liaise with stakeholders to develop existing tourist sites to modern standards (Asuboni No. 3 Waterfall, Ancient Artefacts, and Nkawkaw-kuma Cave)										
Number of tourist sites developed	Measures the number of tourist sites developed	Output	0	0	0	0	1	-Waterfall -Ancient artefact -Cave	Annually	GTA
Linked Objective: Increase access to healthcare by 2045										
Action: Facilitate the renovation of two (2) dilapidated health infrastructure (Nkawkaw and Fodoa)										
Number of health infrastructure renovated	Measures the count of number of infrastructures renovated	Output	1	0	0	0	0	-Nkawkaw -Fodoa	Annually	KWMA

4.11.4 Evaluation

The evaluation of the Local Plan is undertaken to determine the effectiveness and impact of the plan. This focuses on the extent to which the Plan achieves its objectives within the context of the broader District Development Plan. It is, therefore, a vital step toward revising the Local Plan and preparing a new one.

Evaluation of Local Plans could include consideration of the following questions:

- Has the LP Vision/Goal achieved its intended impact?
- Has the LP objectives achieved its intended impact?
- Has any unintended or less desirable results, outcomes, or impacts arisen from LP implementation?
- During the previous planning period, did the overall population grow as expected, at a faster rate, or at a slower rate?
- Did the Management Team effectively carry out its duties, drive the programme, and manage the budget responsibly?
- Were stakeholders adequately consulted, and were their views incorporated into the process?
- Were stakeholders adequately informed of the process, and of how their interests and responsibilities relate to the realisation of the Plan?

4.11.5 Indicators

The development of indicators are essential in determining the achievement of outputs, outcomes or impacts that are agreed in advance and are directly related to the Local Plan goals and objectives. In terms of implementation of the Local Plan monitoring and evaluation system. All monitoring should be done at the MMDA level with oversight provided by Regional Authorities. Evaluation of Local Plan could include the following questions to consider:

- Has the Local Plan Goal achieved the target impact?
- Has the Local Plan objective been achieved the desired outcome?
- Have other less desirable results, outcomes or impacts occurred – as a result of the Local Plan implementation?
- In the previous planning period, did the overall population grow at the same rate, at a faster rate or at a lower rate than expected?
- Did the Management team carry out its duties, drive the programme and manage the budget properly?
- Were stakeholders sufficiently consulted and their views taken into account?
- Were stakeholders sufficiently informed of the process and the relationship between their interest and responsibilities and the realisation of the plan?

4.11.6 Local Plan Outcomes & Impacts:

The evaluation of outcomes and impacts will focus on whether the proposals of the Local Plan have been implemented as intended and whether they are producing the desired results. Key guiding questions include:

- Is the population distribution between settlements and towns as expected or distorted?
- What are the possible reasons for any observed changes?
- What proportion of the additional industrial space has been taken up and developed for industry?
- What additional areas have been developed for industry and where?
- Has the road/rail plan been developed or is it being developed as proposed (in terms of time and location)?
- Have other major infrastructure trunk lines for water and power been developed or are being developed as proposed?
- Have other transport nodes been developed as proposed (e.g. ports, airports etc.)
- Have areas identified for limited development or special treatment been observed?
- Have the main commercial centres been developed as proposed?
- Have the identified tourist areas been developed as expected?
- Have the tertiary educational centres and District/regional hospitals been developed/ extended where proposed?
- Have other key developments identified in the Local Plan been realized or are being realised?

Table 4.7: Evaluation Matrix

Evaluation Criteria	Evaluation Questions	Data Needed	Data Sources	Data Collection Method
Relevance	1.0 Is the project aligned with the Local Plan	Local Plan 2022 - 2027	LP Document, MTDP NDPC Guidelines	Questionnaire
	1.1 Is the project consistent with the LP priorities?	2022-2025 Development Programmes	LP Document, DMTDP	Questionnaire, Interview
	1.2 Is the project aligned with the prioritized development needs of the Assembly?	Development Needs Assessment	Assembly Records	Interview
Efficiency	2.0 Is the approach to achieving the project objectives appropriate?	Program Objectives and Activities (POA)	LP	Questionnaire, Interview
	2.1 Are the project objectives clear and specific?	Program Objective Documents	LP, POA	Interview

Evaluation Criteria	Evaluation Questions	Data Needed	Data Sources	Data Collection Method
Efficiency	2.2 Can the project objectives be measured using available data?	Data Availability Assessment	LP, POA	Interview, Document Analysis
	2.3 Can the project 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 project objectives?	Logical Framework Analysis	Program Documents	Document Review
	2.5 Was the project designed considering the successes of similar projects within the district and others?	Comparative Program Analysis	Evaluation Reports	Document Review, Interview
Effectiveness	3.0 Was the implementation of sub-projects 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

Evaluation Criteria	Evaluation Questions	Data Needed	Data Sources	Data Collection Method
Effectiveness	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 project objective achieved?	Achievement Metrics	Annual Progress Reports	Questionnaire, Interview
	4.1 What impact did the project 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 project implementation?	Unintended Impact Analysis	Evaluation Reports	Interview, Document Review
Sustainability	5.0 To what extent are the project outcomes sustainable?	Sustainability Metrics	Evaluation Reports	Questionnaire, Interview
	5.1 Were mechanisms established to ensure the continuation of project benefits?	Sustainability Mechanism Analysis	Evaluation Reports	Interview, Focus Group Discussion

4.12 Step Nine: Draft Final Local Plan for Stakeholder Consideration

4.12.1 Stakeholder Consultation

It is required at this stage of the process to put together the Draft Final Local Plan and present to stakeholders for their final comments.

Appeals can be made against the Local Plan if the public or an individual has reason to believe that the general public was not adequately consulted or on the grounds that the Local Plan is not in conformity with the District Structure Plan. Appeals may be lodged at the RSPC or the courts where attempts at resolving grievances of the complainant have failed with the plan preparation authority.

4.12.2 Quality Control

Prior to adoption, the Secretariat of the RSPC, will carry out a conformity review to confirm that the Local Plan aligns with approved Structure Plan or any higher-level spatial plan and established standards. Following adoption, certified copies of the Local Plan (hard and digital) shall be lodged with LUSPA for record-keeping and integration into the national spatial database.

4.12.3 Appeals

Appeals may be made against the Local Plan if an individual or the public has reason to believe that consultation was inadequate or that the plan is not in conformity with the approved SDF and Structure Plan. Appeals should first be lodged with the District Assembly as the Plan Preparation Authority. Where grievances are not satisfactorily resolved, complaints may be referred to the Regional Spatial Planning Committee (RSPC) or, as a last resort, to the courts.

4.12.4 Step Ten: Approval and Dissemination of Local Plan

The Draft Final Local Plan shall be submitted to the SPC for approval. The SPC shall, on approval of the Local Plan prepared by the planning team, publish a notice on its notice boards, its website or newspaper of national circulation. Copies must be disseminated to key stakeholders and the public data room of the District Assembly for public access, and publicity requirements shall be carried out in line with prescribed procedures.

APPENDICES

Appendix 1: Proposal to Assembly

Why make the SDF/Structure Plan/Local Plan

It must be explained why it's important to prepare the Plan. These are often the reasons:

- Legal requirement or the old one is simply outdated and needs revision
- When new plans or guidelines from the national or regional level are made

or

important sector plans with large spatial impact are revised

- When growth is faster and bigger than projected or the existing plan can't cope with present and future challenges or a new and prosperous industry or possibility are underway

There can of course be other reasons for making the plan.

Challenges and Possibilities

Prevailing challenges and possibilities in the district are to be pointed out and the amount of surveys, data, analyses and planning considerations should be listed.

Level of Ambition for the SDF/Structure Plan/Local Plan

The District Assembly shall decide to which level of ambition the Plan is carried out. The planners need to know because it influences the planning cost, the allocation of manpower, the work plan and the time required for making the plan. The planners can do this by describing two to three (2-3) different levels of ambition with matching budgets which the District Assembly has to decide upon.

When outlining the different levels of ambition you could answer these questions:

- What kind of Plan do you want to make: just smaller adjustments or a total revision of the whole plan?
- What kind of participation is needed: many public meetings and stakeholder workshops or few?
- To which standard of layout is the different documents carried out: soft or hard printed copies, leaflets, wall sheets etc.?

Organization and the Political Approval Process

It is necessary to organize the work with clear rules for collaboration and defining communication lines for the leading officers at the affected planning units and sector plan authorities, the District Assembly and the Spatial Planning Committee. It should also be considered to which extent the Regional planners and the Regional Co-ordinating Committee shall be involved in the planning process and how this collaboration is carried out.

If it is an option, the Assembly could outline the amount of cooperation with private investors and consider the extent to which they can contribute to the planning costs without losing influence on the planning design.

Planning Process/Work Plan and Time Schedule

The overall planning process as a work plan in main phases and time schedule shall be made. A short description of each phase with the outcome/planning document should be made.

The work plan described in the program must be detailed and the main tasks in each phase must be identified and put into a time schedule together with all the meetings and workshops.

- It gives all attendances an overview, and it enables the planners to manage the planning process.
- There are programs for doing this, but it can also be done in an Excel spread sheet.
- It is a good idea to start with placing the final approval in the District Assembly. The rest will then be adjustments of all the other tasks, meetings and workshops.
- It is a good idea to gather the meetings and workshops in a group of rows at the top of the spread sheet. This makes it easier to adjust the meetings and the workshops to the working phases. It is important that the length of the different working phases match the estimated amount of work. No short working periods when a lot of work is to be done!
- It is also important to insure at least a week between delivery of documents and plans and approval at the District Assembly, so that the politicians can familiarize with the content and consider which decisions they will prefer.

It should be possible to go through the planning process as it is stated in the Planning Law within a year plus/minus a month. Care should be taken not to propose a planning period that is too short, and therefore don't give the planners the necessary time to be able to make the different documents and to make a decent participation process.

If base maps are not available and additional education of the planning staff is necessary, this should be reflected in the time schedule.

Use of Consultants

Consultants could be used due to the following reasons:

- The planners in the district are occupied with other important tasks
- There are too few planners
- The planners do not possess the experience or knowledge, ICT or planning skills necessary for making the Spatial Development Framework
- The district planning office is not equipped with the appropriate ICT equipment
- The desire for new inspiration from outsiders with other ideas.

The program shall explain why the use of consultants is recommended. Explain also the distribution of the work between the planning office and the consultants and the estimated amount of money that needs to be paid to the consultants. Explain procurement processes and prepare a time schedule for procurement.

If use of consultants is decided, the following steps must be taken:

- Preparation of detailed specifications for Request for Proposals
- Advertising
- Evaluation and recommendation
- Decision by Assembly
- Contract and Terms of Reference

Budget

The program is finalized with a budget which should contain

- Meeting costs
- Workshop costs
- Printing costs
- New maps
- Advertising costs
- Consultants fee
- Other non-foreseeable services
- Additional ICT hard and soft ware
- Additional training ICT and planning

There could be two budgets with the two levels of ambition for the making of the Spatial Development Framework and there could be options that could be chosen from where necessary.

Appendix 2: Typical Programme Outline

PREPARATION OF DISTRICT SDF FOR THREE COASTAL COMMUNITIES (KETU SOUTH, ANLOGA AND KETA MUNICIPALITIES, UNDER THE WEST AFRICA COASTAL AREAS (WACA) RESILIENCE INVESTMENT PROJECT

INCEPTION MEETING AND REVIEW OF DRAFT INCEPTION REPORT
VENUE: ARUBA HOTEL, ABURI- EASTERN REGION

Time	Activity	Responsibility
8:30am - 9:0am	Registration	Secretariat, LUSPA
9:0am - 9:05am	Opening Prayer	Volunteer
9:05am - 9:15am	Introduction of Participants	All
9:15am - 9:25am	Welcome Statement /Chairman's Remarks Introduction of Co-opted Members	Regional Coordinating Director
9:25 am- 10: 15am	Presentation on: ✓ *Overview of the WACA Project* ✓ *Preparation of the DSDF*	LUSPA
10: 15 am- 10: 45	Q&A	All
11:15am – 11:45 am	Presentation on Data Requirements	LUSPA
11:45am -12:00pm	Q&A	All
12:00pm -2:00pm	Presentation on Draft Inception Reports: ✓ *Ketu South Municipal* ✓ *Keta Municipal* ✓ *Anloga District*	LUSPA
2:00pm- 2:30pm	Q&A	All
3:30pm- 3:45pm	Chairperson's Closing Remarks	Chairperson
3:45 - 4:00pm	**Vote of Thanks & Closing**	**Facilitator**

Appendix 3: Typical Executive Summary

PREPARATION OF DISTRICT SPATIAL DEVELOPMENT FRAMEWORK FOR KETU SOUTH MUNICIPALITY, UNDER THE WEST AFRICAL COASTAL AREAS (WACA RESIP II) PROJECT

The Government of Ghana has obtained financing from the World Bank for the implementation of the WACA Resilience Investment Project 2 (WACA resIP 2) Project over a five -year period (2023-2027). The project focuses on four (4) components including strengthening regional coordination; strengthening the policy and institutional framework; Strengthening national physical and social investments; and project management. The key project objectives are to strengthen the resilience of targeted communities and coastal areas of West Africa and restore coastal ecosystems, especially mangroves, to reduce the risk of erosion and flooding, including restoration of abandoned rice paddies and the water system. Under the component 2 of the project which aims at strengthening the policy and institutional framework, the Land Use and Spatial Planning Authority has been tasked to support the preparation of Spatial Development Frameworks (SDF) for three selected District Assemblies in the Volta Region.

The Inception Report presents the initial phase of the preparation of the Spatial Development Framework (SDF) under the West Africa Coastal Areas Resilience Investment Project Phase 2 (WACA resIP 2). The SDF is a comprehensive and strategic plan aimed at guiding sustainable development in the (Insert name of district). The SDF will serve as a roadmap for the district's spatial and marine area planning, economic growth, social development, and environmental sustainability over the next two decades. The Inception report is made up of six chapters.

Chapter one provides an overview of the background and context of the SDF preparation. It highlights the district's geographical and demographic characteristics, key economic sectors, existing infrastructure, and development challenges. The chapter emphasizes the importance of a well-structured and integrated approach to address the district's evolving needs and aspirations.

Chapter two identify and discuss all demographic, environmental (physical), spatial, economic, social, institutional and technological issues that need to be understood to serve as basis for the preparation of the plan. It also Identify and discuss all marine area issues such as the physical oceanographic, socio-cultural and sectoral issues that need to be understood to serve as basis for the preparation of the marine aspect of the plan.

Chapter three presents the key policies, laws, plans, and technical reports that will guide the preparation process of the SDF. The chapter underscores the significance of aligning the SDF with international, national and regional development priorities to ensure coherence and relevance.

Chapter four details the approach, methodology, and project deliverables for the SDF preparation. It highlights the collaborative and participatory nature of the process, involving various stakeholders, government agencies, non-governmental organizations, and traditional authorities. The chapter emphasizes the importance of data collection, analysis, and public consultations to inform the development of the SDF.

Chapter five focuses on the institutional and staffing arrangements for the SDF preparation. It outlines the roles and responsibilities of the Technical Sub-Committee (TSC) and the Spatial Planning Committee (SPC) of the District Assembly. The chapter highlights the need for cross-cutting themes, such as demographic, social, economic, spatial, environmental, and institutional aspects, to be adequately represented in the stakeholder groups. The report concludes with an overview of the progress made to date and identifies potential opportunities and challenges in the SDF preparation. Notable achievements include (list some key activities executed at the preparatory/inception stage of the project). However, challenges such as logistics, absence of Regional Spatial Development Framework, (insert two key challenges) require careful consideration.

In conclusion, the Inception Report serves is a roadmap for the successful development of the District Spatial Development Framework (2025-2045). By embracing a collaborative and inclusive approach and addressing identified challenges, the SDF will become a vital tool for shaping the district's future growth, promoting sustainable development, and improving the quality of life for its residents.

Overall, the Inception Report lays the groundwork for a comprehensive and effective Spatial Development Framework, guiding the district towards a prosperous, resilient, and inclusive future in the years 2025-2045 and beyond

Appendix 4: Example of Data Collection Guide

A. AGRICULTURE (Agric office/Extension officers)

1. What are the types of farming in the Spatial Plan Area (Plantation farming, Crop farming, Fish and Livestock farming etc)
2. What are the existing conditions of Agriculture in the Spatial Plan Area
3. What is the land intake of Agriculture in the Spatial Plan Area?

ACTIVITY TYPE	LAND INTAKE (ARCES)
Farming	
Aquaculture	
Poultry	
Livestock	

4. Where is the location of agricultural land use in the Spatial Plan Area?
5. What is the yield of various crops in the Spatial Plan Area for the last 10 years

PLANTATION

Spatial Plan Area	CROP/ YEAR	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	cocoa										
	coconut										
	oil plam										
	rubber										
	others										

CROP FARMING

Spatial Plan Area	CROP/ YEAR	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	maize										
	rice										
	cassava										
	yam										
	cocoyam										
	plantain										
	others										

LIVESTOCK

Spatial Plan Area	LIVE-STOCK / YEAR	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	cattle										
	sheep										
	goats										
	pigs										
	poultry										
	others										

FISHING AND AQUACULTURE

Spatial Plan Area	STOCK/ YEAR	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	fishing										
	aquaculture										
	others										

1. What is the population engaged in Agriculture in the Spatial Plan Area? List table

ACTIVITY TYPE	POPULATION
farming	
fishing	
aquaculture	
poultrty	
livestock	
others	

8. What are the key issues of Agriculture in the Spatial Plan Area?
9. What are the key opportunities of Agriculture in the Spatial Plan Area?
10. What are the ongoing Agricultural projects in the Spatial Plan Area?
11. What are the future plans/projects for agriculture in the Spatial Plan Area (silos, storage, mechanized farming, irrigation, warehouses)
12. Are there irrigation sites within the Spatial plan area?
13. Are there farmer groups, fisher groups etc in the Spatial plan area?
14. Any other data

B. COMMERCIAL DEVELOPMENT

1. What are the categories/types of commercial activities in the Spatial Plan Area?
2. What are the existing economic conditions of the Spatial Plan Area?
3. What is the land intake of commercial activities in the Spatial Plan Area?

ACTIVITY TYPE	LAND INTAKE

4. Where is the location of commercial activities in the Spatial Plan Area?
5. What is the population engaged in commerce and service in Spatial Plan Area

ACTIVITY TYPE	POPULATION

6. What are the key issues of commerce and services in the Spatial Plan Area?
7. What are the key opportunities of commerce and services in the Spatial Plan Area?
8. What are the Plans for commercial development in the Spatial Plan Area?
9. Any other data

C. INDUSTRIAL DEVELOPMENT

1. What are the types of industrial activities in the Spatial Plan Area (Heavy industrial, light industrial etc.)?

HEAVY INDUSTRY	LIGHT INDUSTRY

2. What are the existing conditions of industrial activities in the Spatial Plan Area?
3. What is the land intake of industrial activities in the Spatial Plan Area?

ACTIVITY TYPE	LAND INTAKE

4. Where are the locations of industrial activities in the Spatial Plan Area?
5. What are the number of people engaged in industrial activities in the Spatial Plan Area?

ACTIVITY TYPE	POPULATION

7. What are the key issues of industrial activities in the Spatial Plan Area?
8. What are the key opportunities of industrial activities in the Spatial Plan Area?
9. What are the ongoing projects in the industrial sector in the Spatial Plan Area?
10. What are the future plans for industrial development in the Spatial Plan Area?
11. Any other data

D. HEALTH (District Health Directorate)

1. What are the health facilities and services in the Spatial Plan Area (Hospitals, clinics, CHPs, Maternity homes, herbal clinics, pharmacies, chemical shops etc)? List Table

NO.	COMMUNITY	HEALTH FACILITY	NUMBER OF FACILITIES	CONDITION
1				
2				
3				

Probing question: what are the levels and ownership (Public/ Private)?
2. What are the existing conditions of health in the Spatial Plan Area?

- Facilities
- Personnel
- NHIS Enrolment

3. What is the land intake of health in the Spatial Plan Area?

ACTIVITY TYPE	LAND INTAKE

4. Where is the location of health facilities in the Spatial Plan Area?
6. What are the key issues within the health sector in the Spatial Plan Area?
7. What are the key opportunities within the health sector in the Spatial Plan Area?
8. What are the ongoing projects within the health sector in the Spatial Plan Area?
9. What are the future plans for the health sector in the Spatial Plan Area?
10. Any other data

E. EDUCATION

1. What is the level of educational facilities in the Spatial Plan Area (Primary, JHS, SHS, Vocational/ Technical, and Tertiary)?
2. What are the existing conditions of education in the Spatial Plan Area

- Enrolment
- Facilities
- Personnel

3. What is the land intake of educational land use in the Spatial Plan Area?

ACTIVITY TYPE	LAND INTAKE

4. Where is the location of educational facilities in the Spatial Plan Area?
6. What are the key issues within the educational sector in the Spatial Plan Area?
7. What are the opportunities within the educational sector in the Spatial Plan Area?
8. What are the plans for education in the Spatial Plan Area?
9 Any other data

F. ENERGY

1. What are the existing conditions of energy (power supply) in the Spatial Plan Area?
2. Where is the location of power lines in the Spatial Plan Area?
3. What type of energy do households use for lighting in the Spatial Plan Area?
4. What type of energy do households use for domestic use in the Spatial Plan Area?
6. What are the key issues of energy in the Spatial Plan Area?
7. What are the key opportunities of energy in the Spatial Plan Area?
8. What are the ongoing projects in the Spatial Plan Area?
9. What are the future plans for energy in the Spatial Plan Area?
10. Any other data

G. SANITATION (SOLID & LIQUID WASTE SYSTEMS) - ENV. HEALTH, DEVT & PHY. PLANNER, COMM. WATER

1. What are the existing conditions of sanitation (solid and liquid waste disposal) in the Spatial Plan Area?
2. What is the mode of disposal? (Solid and liquid waste)
3. What is the number of household with /without sanitary facilities?
4. What are the Structure locations of public sanitary facilities in the Spatial Plan Area?
    - Dumpsites
    - Public toilets
    - Refuse collection point

5. What are the conditions of public sanitary facilities in the Spatial Plan Area?
    - Waste treatment for liquid and solid

7. What are the key issues of sanitation in the Spatial Plan Area?
8. What are the key opportunities of sanitation in the Spatial Plan Area?
9. What are the ongoing projects of sanitation (solid and liquid waste) in the Spatial Plan Area?
10. What are the future plans for sanitation (solid and liquid waste) in the Spatial Plan Area?
11. Any other data

H. WATER SUPPLY

1. What are the sources of water for domestic use in the Spatial Plan Area?
    - Number of households with access to all the different sources of water see attached
2. What are the sources of water for industrial use in the Spatial Plan Area?
3. What is the current state of water supply in the Spatial Plan Area?
4. What are the agencies responsible for water supply and distribution in the Spatial Plan Area? Eg. Water tankers, Community water and sanitation, GWCL, WATSAN, CWSA, etc
5. Where is the location of water facilities/infrastructure in the Spatial Plan Area?
    - Map of major distribution lines
    - Boreholes
    - Hand dug wells
    - Stand pipes
    - waterbodies
7. What are the key issues of Water Supply in the Spatial Plan Area?
8. What are the key opportunities of Water Supply in the Spatial Plan Area?
9. What are the ongoing projects in the Water sector in the Spatial Area?
10. What are the future plans for Water Supply in the Spatial Plan Area?
11. Any other data

I. TRANSPORTATION

1. What are the hierarchy of road networks in the Spatial Plan Area?
    - Highway
    - Trunk roads
    - Distributors
    - collectors
2. What are the types of transportation system in the Spatial Plan Area?
    - Road
    - Air
    - Water
    - Rail
3. What are the existing conditions of transportation systems in the Spatial Plan Area?
    - Road
    - Air
    - Water
    - Rail
4. What are the modes of transportation in the Spatial Plan Area?
    - Foot
    - Road (commercial and private)
    - Air

- Water (commercial and private)
- Rail
- Non-motorized

5. What is the number of commuters for each mode of transport in the Spatial plan area?
6. What are the conditions of road network in the Structure Plan Area?

- Tarred (Asphalt, gravels, concrete)
- Untarred
- Potholes

8. What are the key issues of transportation in the Spatial Plan Area?
9. What are the key opportunities of transportation in the Spatial Plan Area?
10. What are the ongoing projects of transportation in the Spatial Plan Area?
11. What are the future plans for transportation in the Spatial Plan Area?
12. Any other data

J. SPORTS AND RECREATION

1. What are the types of sporting and recreational activities in the Spatial plan area?
Eg. Football, Athletics, Volleyball, Canoeing, Gulf, Sailing and boating, Swimming, Hunting, Fishing, Basketball, etc
2. What are the types of sporting and recreational facilities in the Spatial Plan Area?

- stadia
- park
- community and social centre

3. What are the existing conditions of sports and recreation in the Spatial Plan Area?

- Astroturf
- Grass
- No grass

4. What is the land intake of sports and recreation in the Spatial Plan Area?

ACTIVITY TYPE	LAND INTAKE

5. Where is the location of sports and recreational facilities in the Spatial Plan Area?
6. What are the potentials of sports and recreation in the Spatial Plan Area?
7. What are the key issues of sports and recreation in the Spatial Plan Area?
8. What are the key opportunities of sports and recreation in the Spatial Plan Area?
9. What are the ongoing projects of sports and recreation in the Spatial Plan Area?
10. What are the future plans for sports and recreation in the Spatial Plan Area?
Any other data

K. INFORMATION AND COMMUNICATION TECHNOLOGY

1. What are the existing conditions of ICT technologies and infrastructure in the Spatial Plan Area?

- Cafes (Patronage)
- Telecos and other internet providers
    - Personnel
    - Logistics
    - Coverage
- ICT technology and infrastructure – Fibre optic cables, Mast, telephone lines
- Post office
- Information providers
    - Radio and Tv stations
    - Information centres
    - NCCE
    - Gong gong
    - Information service

2. What is the situation of household ownership of Mobile Phones in the Spatial Plan Area?
3. What is the situation of household ownership of Computers in the Spatial Plan Area?
4. What is the situation of household use of internet services in the Spatial Plan Area?
6. What are the key issues of ICT development in the Spatial Plan Area?
7. What are the key opportunities of ICT in the Spatial Plan Area?
8. What are the ongoing projects of ICT in the Spatial Plan Area?
9. What are the future plans for ICT in the Spatial Plan Area?

Any other data

L. TOURISM

1. Types of tourist sites in the Spatial Plan Area

- Fortes and castles
- Waterfalls
- Canopy walk
- Animal reserve and zoo
- Historical site

2. What are the existing conditions of tourism in the Spatial Plan Area?

- Patronage
- Accessibility to tourist site
- Facilities/ Infrastructure
- Accommodation

TOURIST TYPE	PATRON-AGE	ACCESSIBIL-ITY	FACILITIES	ACCOMODA-TION	OTHERS

3. What is the land intake of tourism in the Spatial Plan Area?

TOURIST SITE	LAND INTAKE

4. What are the Structure locations of tourists' sites in the Spatial Plan Area?
6. What are the key issues of tourism in the Spatial Plan Area?
7. What are the key opportunities of tourism in the Spatial Plan Area?
8. What are the ongoing projects of tourism in the Spatial Plan Area?
9. What are the future plans for tourism in the Spatial Plan Area?
10 Any other data

M. CIVIC AND CULTURAL FACILITIES

1. What are the civic and culture facilities in the Spatial plan area? (e.g places of worship, public libraries, post office, police stations, fire service, chief's palace and durbar grounds, court, etc)
2. What are the existing conditions of civic facilities in the Spatial Plan Area?
- Type
- State
- Accessibility (which groups and frequency of use)
- coverage

2. What are the existing conditions of religious facilities in the Spatial Plan Area?
- Type
- State
- Accessibility (which groups and frequency of use)
- coverage

3. What are the existing conditions of cultural facilities in the Spatial Plan Area?
- Type
- State
- Accessibility (which groups and frequency of use)
- coverage

4. What is the land intake of civic and cultural facilities in the Spatial Plan Area?

TYPE	LAND INTAKE

5. What is the location of civic and cultural facilities in the Spatial Plan Area?
7. What are the key issues of civic and culture in the Spatial Plan Area?
8. What are the key opportunities of civic and culture in the Spatial Plan Area?
9. What are the ongoing projects of civic and cultural development in the Spatial Plan Area?

10. What are the future plans for civic and culture in the Spatial Plan Area?
11. Any other data

N. RESIDENTIAL DEVELOPEMNT

1. What is the total number of housing units in the Spatial Plan Area?
2. What are the typology of housing in the Spatial Plan Area?
    - Detached
    - Semi detached
    - compound
3. What is the Settlement pattern in the Spatial Plan Area? (Layout)
    - Clustered
    - Linear
    - Dispersed
    - Isolated
4. What are the existing conditions of housing in the Spatial Plan Area?
    - Cracked Walls
    - Exposed foundation
5. What is the house ownership status in the Spatial Plan Area? (opinion leaders/planning officer)
    - Self-owned
    - Rented
    - Family house
6. What is the densities of housing in the Spatial Plan Area? (Number of houses/area)
    - High
    - Low
    - medium
7. What are the predominant materials for housing development in the Spatial Plan Area
    - Sandcrete
    - Landcrete
    - Bricks
    - Wooden
    - Swish/ mud
    - roofing (Asbestos, Zinc, aluminium, tile, etc)
8. What are the key issues of housing in the Spatial Plan Area?
9. What are the key opportunities of housing in the Spatial Plan Area?
10. What are the major ongoing housing developments in the Spatial Plan Area?
11. What are the future plans for residential housing development in the Spatial Plan Area?
12. Any other data.

O. SAFETY AND SECURITY

1. What are the hierarchy of security installations in the Spatial plan area?
2. What are the kind of security services within the Spatial plan area? (Location)
    - Navy
    - Police
    - Fire

- Ambulance
- Immigration
- Military
- Others

3. What are the types of crimes within the district? (top five)
4. Where are the hotspots for crime within the Spatial Plan area?
5. What are the conditions of the physical structures of these security facilities?

Security/ Safety	Condition of Facility	No. of Personnel	Logistics	Travel time to Crime Spots (Hotspots)	Other Issues

7. What are the key issues of safety and security in the Plan Area?
8. What are the key opportunities of safety and security in the Spatial Plan Area?
9. What are the ongoing projects of safety and security in the Spatial Plan Area?
10. What are the future plans for safety and security in the Spatial Plan Area?
11. Any other data

P. NADMO

1. What kind of disasters occur in the Spatial Plan area? (top five)
2. Where are the disaster prone areas within the Spatial Plan area?
3. How will you classify the risk areas in the Spatial Plan Area? (High/ Medium/Low)

Location	Risk Level	Safe Haven

Condition of Facility	No. of Personnel	Logistics	Travel time to Disaster Spots	Other Issues

8. What are the key issues of NADMO in the Spatial Plan Area?
9. What are the key opportunities of NADMO in the Spatial Plan Area?
9. What are the ongoing projects of NADMO in the Spatial Plan Area?
10. What are the future plans for NADMO in the Spatial Plan Area?
11. Any other data

Appendix 5: Summary of Chapters for Situational Analysis Report

CHAPTER ONE (BACKGROUND AND RATIONALE OF A SPATIAL DEVELOPMENT FRAMEWORK)

1.1 Background
1.2 Objectives of SDF
1.3 Legal Framework and Policy for SDF
1.4 Governance and Institutional Framework for the SDF
1.5 Location and Size
1.6 Justification for the SDF
1.7 Methodology on Data Collection and Analysis
1.8 Limitations
1.9 Report Organization

CHAPTER TWO (NATURAL ENVIRONMENT)

2.1 Introduction
2.2 Environmental Related Policies
2.3 Topography and Relief
2.4 Drainage
2.5 Geology and Soils
2.6
2.7 Biodiversity
2.8 Climate Change and Resilience
2.9 Summary of Findings

CHAPTER THREE (POPULATION DYNAMICS, URBANIZATION AND HUMAN SETTLEMENT DEVELOPMENT)

3.1 Introduction
3.2 Historical Population Trends and Distribution
3.3 Age-Sex Structure
3.4 Population Density and Projection
3.5 Age-Dependency Ratio
3.6 Urbanization and Migration
3.7 Settlement Patterns, Hierarchy and Functions
3.8 Description of Major Settlements and Distribution
3.9 Summary of Findings

CHAPTER FOUR (MAN-MADE ENVIRONMENT)

4.1 Introduction
4.2 Water Infrastructure and Services
4.3 Sewerage and Sanitation Infrastructure and Services
4.4 Storm Water Infrastructure and Services
4.5 Communication Infrastructure and Services

4.6 Energy Infrastructure and Services
4.7 Transportation and Road Infrastructure
4.8 Summary of Findings-Man Made Environment

CHAPTER FIVE (ECONOMY)

5.1 Introduction
5.2 Employment Structure of the Economy
5.3 Economic Structure
5.4 Local Economic Development
5.5 Summary of Findings-Economy

CHAPTER SIX (SOCIAL DEVELOPMENT)

6.1 Introduction
6.2 Health
6.3 Education
6.4 Housing (Dwelling Type, Occupancy, Tenure Status, Housing Delivery)
6.5 Gender and Development
6.6 Summary of Findings-Social Development

CHAPTER SEVEN (DEVELOPMENT CHALLENGES AND OPPORTUNITIES)

7.1 Introduction
7.2 Natural Environment Challenges and Opportunities
7.3 Population Dynamics, Urbanization and Human Settlement Development
7.4 Man Made Environment Challenges and Opportunities
7.5 Economic Challenges and Opportunities
7.6 Social Development Challenges and Opportunities

Appendix 6: Example of the Contents of SDF/SP/LP Report

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1.11 Objectives of the SDF/ Structure Plan/Local Plan
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1.13 Governance and Institutional Framework for SDF/ Structure Plan/Local Plan
1.14 Location and Size of the Plan Area
1.15 Justification for SDF/ Structure Plan/Local Plan
1.16 Methodology on Data Collection and Analysis
1.17 Limitations
1.18 Report Organization

CHAPTER TWO (NATURAL ENVIRONMENT)

2.1 Introduction
2.2 Environmental Related Policies
2.3 Relief and Drainage
2.4 Topography and Vegetation
2.5 Geology and Soils
2.6 Land Cover Analysis
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2.8 Landscape Dynamics
2.9 Climate Change and Resilience
2.10 Summary of Findings

CHAPTER THREE (POPULATION DYNAMICS, URBANIZATION AND HUMAN SETTLEMENT DEVELOPMENT)

3.1 Introduction
3.2 Historical Population Trends
3.3 Age-Sex Structure
3.4 Population Density

3.5 Age-Dependency Ratio
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3.7 Description of Major Settlements and Distribution
3.8 Settlement Patterns, Hierarchy and Functions
3.9 Summary of Findings

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4.5 Communication Infrastructure and Services
4.6 Energy Infrastructure and Services
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CHAPTER FIVE (ECONOMY)

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7.4 Man Made Environment Challenges and Opportunities
7.5 Economic Challenges and Opportunities
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9.1 Strategic Environmental Assessment of SDF/SP/LP Area

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10.2 Phasing and Timeframe
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11.1 Introduction
11.2 Stakeholder Analysis
11.3 Monitoring
11.4 Evaluation

LAND USE AND SPATIAL PLANNING AUTHORITY

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