

**2011**

## **Progress Report on the**



## **Luangwa Integrated Plan**

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# Integrated Urban Planning – applied

Proposal for the documentation of outcomes

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## 1.0 INTRODUCTION

Zambia is located in southern part of Africa, the country shares borders with eight countries namely Angola, Namibia, Botswana, Zimbabwe, Mozambique, Malawi, Tanzania and Democratic Republic of Congo. The country is also divided into nine regions or provinces namely Lusaka, central, Northern, Luapula, and Copperbelt, North western, western, southern and eastern provinces. Figures 1.1 and 1.2 show the location of Luangwa District in Zambia as well as in Lusaka Province.

Luangwa District is one of the four districts in Lusaka Province and covers an area of 3,471 square kilometres approximately in the eastern part of the Province (Luangwa DSA, 2007). It borders with Chongwe District in the west as well as Mozambique and Zimbabwe in the east and south respectively. Most of the District is covered by the Lower Zambezi National Park and Rufunsa Game Management Area (GMA) Luangwa Township is located at the confluence of Luangwa and Zambezi Rivers and is approximately 300 kilometres from Lusaka City.

The district is endowed with abundant natural resources such as water, land, forestry, wildlife; minerals and tourism sites which if exploited could accelerate its economic development. Presently, the District is characterised by relatively slow economic development as a result of low levels of investment and poor capital formation. It faces some hindrances to economic growth due to obsolete technology, especially in the energy and telecommunication sectors, underdeveloped infrastructure as well as inadequate technical and managerial skills. The Lusaka Province Planning Office decided to prepare an Integrated District development Plan (IDP) for the district so as to facilitate and stimulate the opening up of potential areas of investment and general development.

The Town and Country Planning Act Cap 283 of the Laws of Zambia provides for the establishment of a Development Plans in urban areas in order that it could cater for development and subsequent developmental challenges. From its inception, Luangwa has not had any approved Development or Structure Plan or any other major plan to guide development. The only available planning documents in the District has been the Luangwa District Situation Analysis (DSA) prepared by the Luangwa District Planning Unit in 2007 and the District Development Plan developed by the Ministry of Finance and National Planning under the Fifth National Development Plan and is yet to be implemented. Therefore, the preparation and implementation of the Luangwa IDP will be expected to play a significant role in fostering development in the district and ensuring that it becomes a major contributor in the development in Lusaka Province and Zambia as a whole.

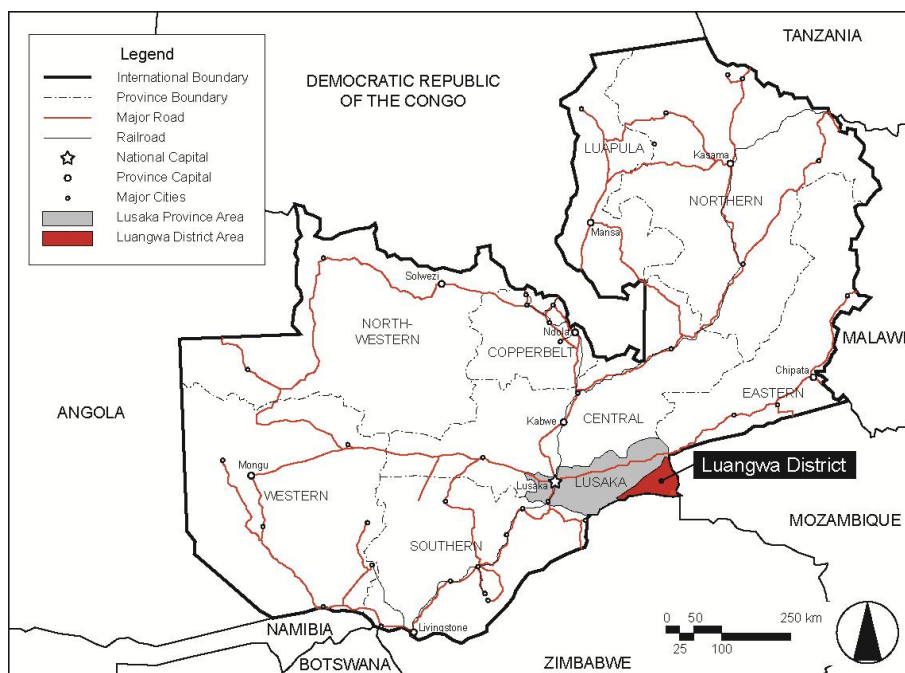


Figure 1: Map of Zambia and provinces (Source: DPPH, 2011)

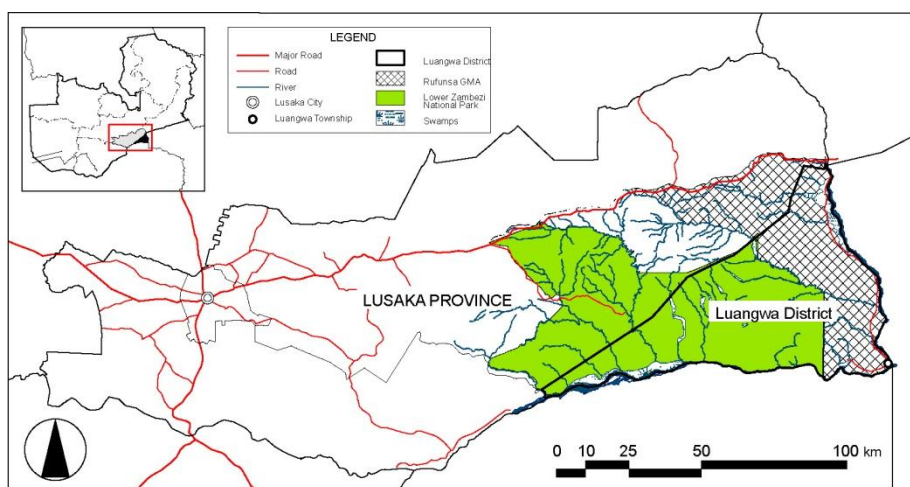


Figure 2: Map of Lusaka Province (Source: DPPH, 2011)

## 1.1 Historical Background

The history of Luangwa dates back to the Seventeenth Century (Luangwa DSA, 2007). Luangwa was originally established as a trading post called Feira along with Zumbo in Mozambique by a group of Portuguese colonialists from Goa. Feira in Portuguese means market. It was mainly a slave market along the Zambezi River. These two trading posts flourished into settlements and eventually, towns namely Zumbo (in Mozambique) and Luangwa, respectively.

The first British Overseas Military Administrator (BOMA) was established in 1902 (Luangwa DSA, 2007) and the Township developed into an important transit point for various goods and merchandise. At this point, Feira was an important staging post on the cattle route from Tanganyika (Tanzania) to Southern Rhodesia (Zimbabwe). However, Feira's significance declined with the introduction of the railway line from the south, through Livingstone, going up north into Tanzania.

## 2.0 Why prepare an Integrated Plan for Luangwa District

Luangwa District is one of the oldest settlements to be established in Zambia. However, it has one of the lowest levels of development in the province. It is characterised by low economic activity and poor and unreliable infrastructure in roads, water, electricity, sanitation and transport leading to poor and unreliable service delivery.

It has been realized that the various developments in the district in most cases have been interfering with nature particularly wildlife and it resulted in conflicts between human and animals, especially elephants that destroy crops and attack settlers in the animal corridors. This has led to reduced agricultural activity and subsequent food shortages. In addition, the human animal conflict poses a threat to the human life and settlements and has often resulted in loss of human lives and also killing of the animals.

Most of the population in Luangwa District is concentrated in the township and along the Luangwa River. Some of these areas are prone to regular flooding which causes damage to human settlements, livelihoods and crops. The settlers often cut down trees along the river banks to clear land for agriculture. The cutting down of these trees exacerbates environmental degradation which often leads to flush flooding. These issues have perpetuated poverty and underdevelopment in the District and continued destruction of the environment.

**Table 1 Major Problems in Luangwa District**

Problems	Causes	Effects
Low Economic Development	Lack of investment, Lack of modern technologies to facilitate economic activities, undeveloped infrastructure, limited livelihood activities	Low income levels, high unemployment levels, inadequate social services, poor quality of life
Poor Infrastructure for Services	Lack of upgrading of the existing infrastructure	Poor service delivery, unattractive to investment, Poor buildings and uncoordinated development
Environmental Degradation	Humans settling in animal corridors, settling in sensitive bio-diversity areas. Developments on river banks, settlements in high sensitive bio-diversity	Human animal conflict, death of people and animals, hunger, poverty, food insecurity, Flush flooding, displacement of people, siltation of the Luangwa river, food insecurity

### **3.0 METHODOLOGY**

The methodology that was used in formulating the Luangwa IDP were review of current condition of the district through collecting and analysing data on present conditions in five sectors, namely physical, social, economic, institutional and tourism environment as well as national plans and related existing plans.

Primary data was gathered on the ground through land surveys, full questionnaires for stakeholders and other methods. Data was also gathered through desk studies from existing secondary sources from Ministries and/or Departments and private or parastatal organisations and NGOs. Relevant data was captured in electronic format, suitable for use in Geographic Information System (GIS). Summaries of relevant data together with the findings of various analyses were presented in report format supported by GIS.

#### **3.1 Work Schedule**

The planning process of the IDP was divided into three phases each phase consisted of some interlinked steps.

The detailed workflow for the formulation of the IDP is shown in Figure 3.3.

The activities, included the preliminary works, started in November, 2008 and were finalised in April, 2010. The works were divided into three main phases as follows:

- i) The first phase scheduled from February, 2008 to August, 2010 was for data collection and analysis of the current conditions and a baseline report was produced which is referred to as the Status Quo Report ;
- ii) The second phase was from November 2010 to May, 2011 this phase was based on the analysis of the status quo in the first phase. The target of this phase was to formulate development strategies as well as the Spatial Development Framework (SDF); and
- iii) The third phase scheduled from May, 2011 to July 2011 will focus on planning of prioritised projects and finalisation of the Luangwa IDP.

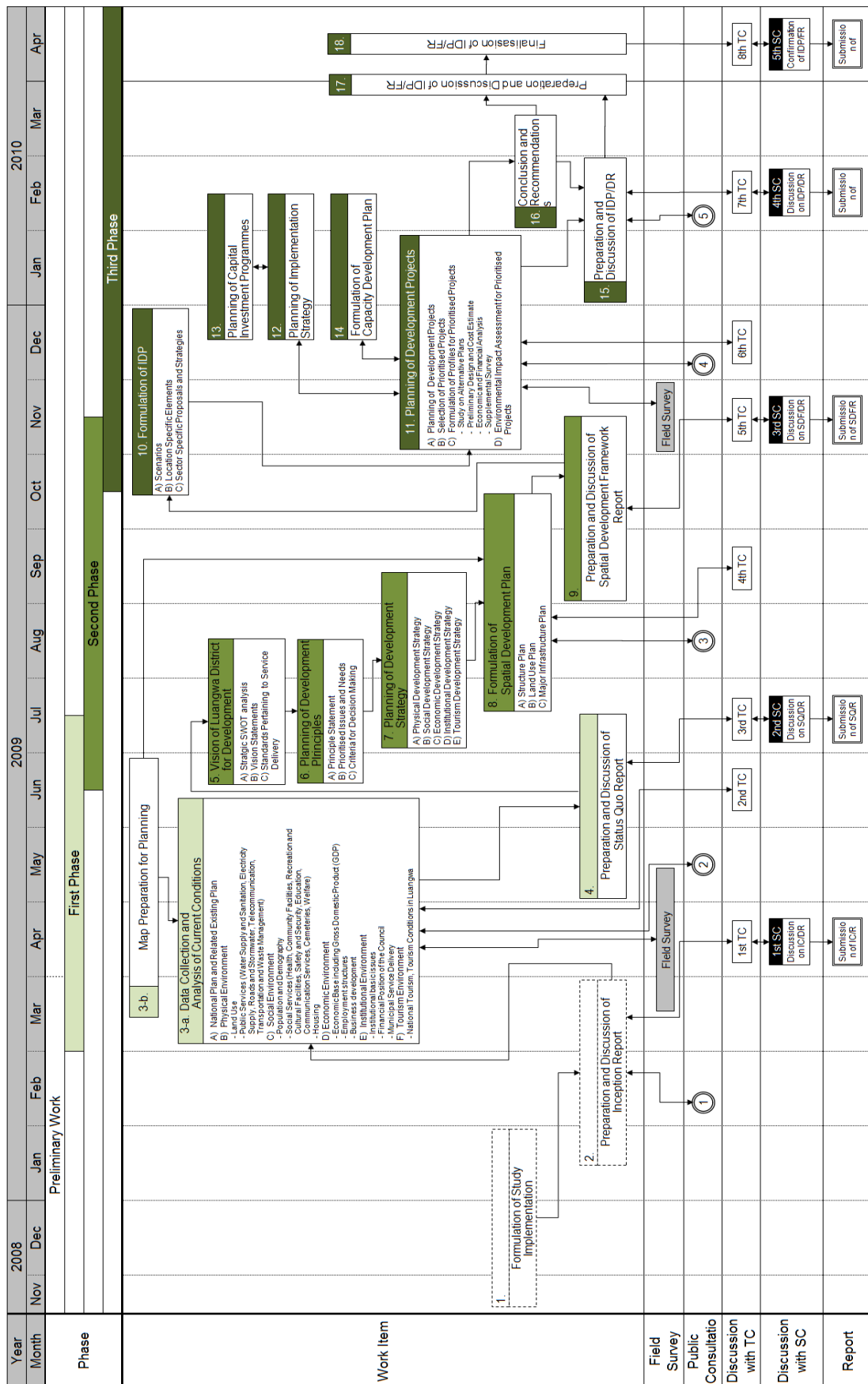


Figure 3: Workflow for the Formulation of the IDP

### 3.2 Planning Approach

The Luangwa IDP will clearly show policy and development strategies of the District based on detailed data analysis. It will draw up action plans and practical projects for implementation of the IDP based on the long term and short term development goals.

The development of the Luangwa IDP has been highly consultative and involvement of Identified stakeholders in Luangwa district, Provincial and National levels, such as the Local Institutions, traditional leaders, individual citizens, Community Based Organisation, NGOs, civic leaders, private and public sectors. The stakeholders provided their development needs and development expectations and also provided in most cases the base line data which is not documented. They were consulted at every stage and also even the finalisation of their plan they will be consulted to determine if their development needs and expectations have been taken into consideration.

The preparation of the Luangwa IDP involved:

1. Establishing the status of Luangwa District through data collection including national or sectoral development plans;
2. Drawing up policy and development strategies based on the results of present condition data analysis through public consultation; and
3. Preparation of action plans including Capital Investment Programmes (CIPs) and practical projects in consultation with all stakeholders.

The planning approach is schematically summarised in Figure 3.2 as follows. Implementation of plans and projects towards the specified goals will be necessary after the planning stage.



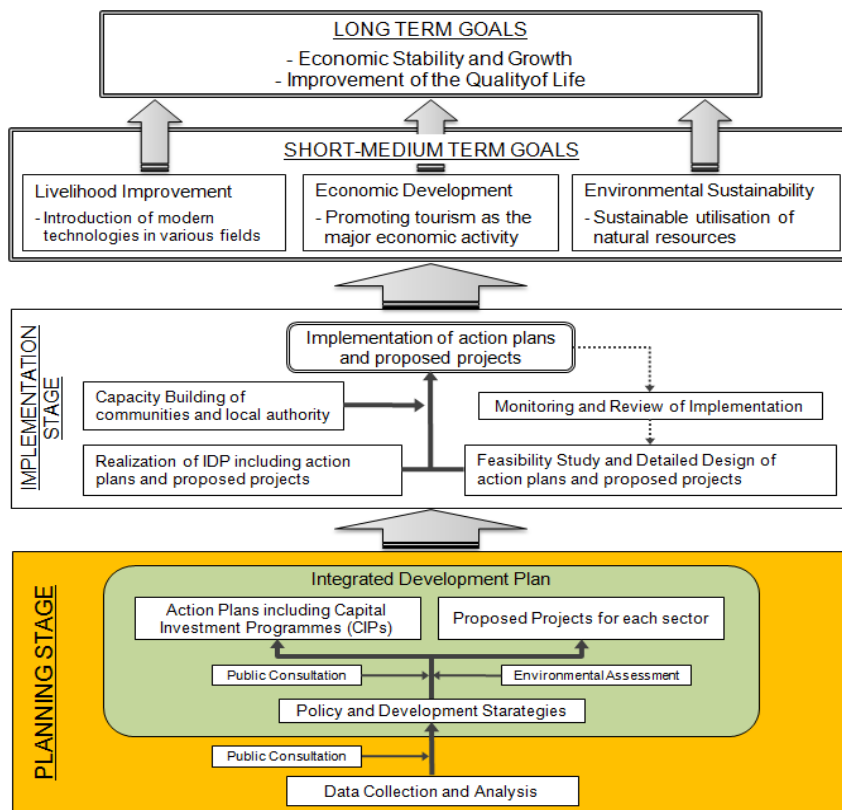


Figure 4: Planning Approach and Goals

### 3.3 First Phase

The first phase focused on collecting and analysing data on present conditions in five sectors, namely physical, social, economic, and institutional and tourism environment as well as national plans and related existing plans.

**The output in this phase was compiled as a report, namely Status Quo Report (SQ/R), which described the current conditions and their analysis as well as some maps supported by GIS.**

#### 3.3.1 Data Collection and Analysis of Current Conditions

##### i) Data Collection and Review of Existing Plans

The work at this stage progressed with collecting information through reviewing existing documents, obtaining additional information from related organisations, interviewing key stakeholders and field surveys on the target areas.

- **National Plans and Related Existing Plans**

The Luangwa IDP was aligned and consistent with national plans and other related existing plans, the National Plans: Vision 2030, FNDP 2006-2010, Regional plans related to the planning area and District Situation Analysis.

## ii) Analysis of Current Conditions

Analysis of the current conditions was conducted based mainly on:

- Identification of the development policy in the area according to national plans and related existed plans.
- Analysis of availability and demand for local authority service deliveries including social services;
- Trends of urbanisation, including population movements;
- Evaluation of current tourism conditions; and
- Institutions and systems for environmental and social considerations.

### 3.3.2 Map Preparation for Planning

Various digital maps were developed from the data that was collected for analysis, planning and presentation purposes. The tentative lists of maps are shown in Table 3.1 as follows.

## 3.4 Second Phase

The second phase in the development of the Luangwa IDP involved undertaking a SWOT Analysis of the District in relation to the IDP. It further entailed developing a vision for the development of the District as well as establishing development principles and strategies. Finally, the phase also involved the formulation of the Spatial Development Plan. The output of this phase was the development vision of the district, the Development Strategies and the Spatial Development Plan and output document was referred to as the Spatial Development Framework Report (SDF/R).

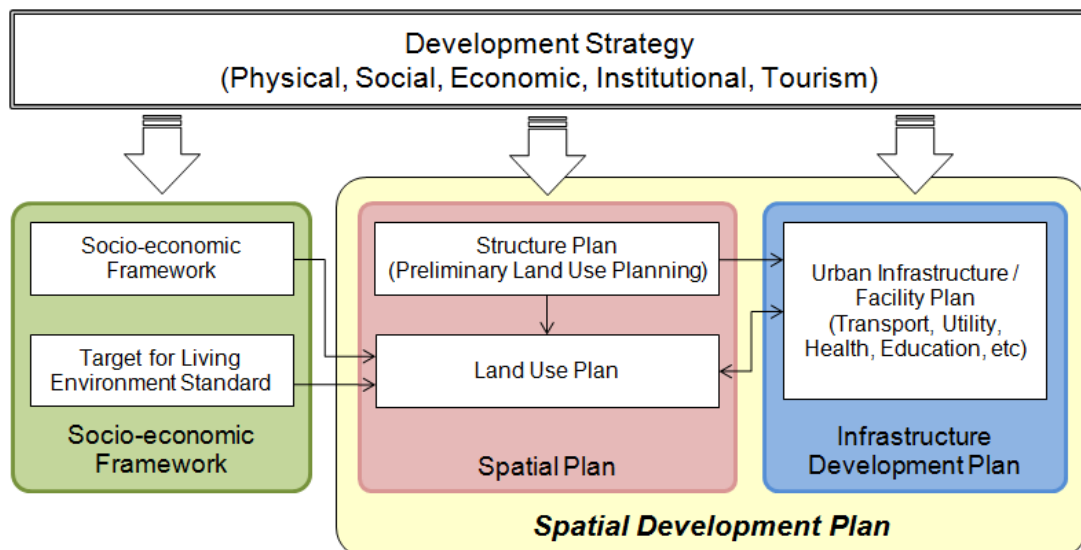


Figure 5: Framework for the Spatial Development Plan

### iii) Sub-items of the Spatial Development Plan:

A development scenario and strategic urban structure has been drawn up in the structure plan that shows a long-term perspective of the development. For preparation of the mid-term plan, the land use plan and related physical development plan were formulated based on the structure plan and socio-economic framework. Detailed contents of these items are shown in Table 3.7.

**Table 2: Sub-Items of Spatial Development Plan**

	Sub-Items	Method	Target Year
i)	Structure Plan	<ul style="list-style-type: none"><li>• Urbanization promotion area and Urbanization control area (mid-term / long-term growth management area)</li><li>• Urban centres (centre, sub-centres, etc.)</li><li>• Major urban infrastructure / facilities (arterial roads, airports, etc.)</li><li>• Agricultural and environmental protection areas</li></ul>	<ul style="list-style-type: none"><li>• Long Term (2030)</li></ul>
ii)	Land Use Plan	<ul style="list-style-type: none"><li>• Land use zoning</li><li>• Population density, etc.</li><li>• Development control (heights, floor area ratios, building coverage ratios, etc.)</li><li>• Natural green area and agricultural land preservation and suitability</li></ul>	<ul style="list-style-type: none"><li>• Mid Term (2020)</li></ul>
iii)	Urban Infrastructure / Facility Plan	<ul style="list-style-type: none"><li>• Road and transportation networks / main transportation facilities</li><li>• Urban infrastructure / facilities (water supply and sewerage, drainage, etc.)</li></ul>	

## 3.5 Third Phase

The third phase outlines the major stages involved in the formulation of the finalised Integrated Development Plan (IDP). These stages include planning for development projects, identifying implementation strategies and capital investment programmes and formulating a capacity development plan.

The IDP for Luangwa will contain parameters within which development actions should take place and, as such, should form the guiding principles for the formulation of development policies, strategies, actions and implementation programmes.

Therefore, the final report will contain recommendations pertaining to guidelines, policies, action plans and strategies including Capital Investment Programmes (CIPs). This report will be considered as the IDP.

### **3.5.1 Formulation of Integrated Development Plan**

The essence of the plan will be to propose functional linkages between isolated areas and economic activities in order to integrate and restructure the urban environment with a view to mobilize the unutilised development potential of the planning area. This will be achieved through determining the following:

#### **i) Scenarios:**

The concept proposals from the SDF will be linked to an overall strategy. Further, alternative scenarios will be developed and tested, and for each of the concept proposals, a set of priorities, phases, critical interventions and controls will be compiled.

#### **ii) Location Specific Elements:**

Different specific locations for recreational, residential, business and industrial activities will be identified in the planning area. The location specific development proposals and strategies will be formulated as part of the IDP.

#### **iii) Sector Specific Proposals and Strategies:**

Certain strategies and proposals will be sector specific and applicable throughout the SDF. These may include economic and human resource development, certain spatial and transport development concepts as well as environmental issues. These proposals and strategies will be developed against the background of the following:

- Balanced Growth;
- Identification of priority sectors;
- Natural assets and Tourism;
- Agriculture;
- Education and Training;
- Health and Welfare;
- Safety and Security;
- Sport and Recreation;
- Intermodal Facilities;
- Spatial Economic Development; and
- Residential Densification.

### 3.5.2 Planning of Development Projects

#### i) Planning of Development Projects

Specific development projects will be identified for implementation in the planning area. The identified projects will be aimed at addressing the development constraints, opportunities and needs, and will be focused on ensuring a definite positive social, economic and spatial impact on Luangwa District and its surroundings.

An interactive process amongst the various role players will be used to identify the projects and this could be in the form of development projects, prioritized projects or identified needs oriented project.

#### ii) Selection of Prioritised Projects

The prioritised projects will be identified through discussions with concerned stakeholders and public consultation. This will be a model to enhance and accelerate implementation of the IDP. The following table shows a summary of the selection criteria.

**Table 3: Lists of Selection Criteria**

	Item	Selection Criteria
i)	Importance	<ul style="list-style-type: none"><li>• Evaluation of project's importance in relation to policies</li><li>• Public Needs</li></ul>
ii)	Input and Implementation	<ul style="list-style-type: none"><li>• Possibility of inputs such as financial, physical aspects, etc...</li><li>• Appropriateness of technical level</li></ul>
iii)	Impact	<ul style="list-style-type: none"><li>• Impact on the natural environment and living environment by projects</li><li>• Economic effectiveness of projects</li><li>• Multiplier effects with other projects</li><li>• Number of beneficiaries of projects</li></ul>

#### iii) Formulation of Profiles for Prioritised Projects

The profiles for the prioritised projects will be prepared through the examination of the following items:

- Comparison of alternative plans
- Preliminary designs and cost estimates
- Economic and financial analysis

- Conduct a supplemental survey for natural and social environmental impact and evaluation on the involuntary relocation, if necessary

#### **iv) Environmental Impact Assessment for Prioritised Projects**

The Environmental Impact Assessment (EIA) for the prioritised projects will be conducted as follows.

- Collection of additional documents related to the priority projects
- Conduct of supplemental surveys on factors such as water quality and involuntary relocation, if necessary
- Evaluation of the impacts caused by prioritised project on the natural and social environment
- Proposing of the necessary countermeasures for impact mitigation, if necessary

In addition, the PT will specify the scope of work for environmental and social studies that may be necessary for implementing the prioritised projects.

### **3.5.3 Planning of Implementation Strategy**

The aim of the implementation strategy is to offer some guidelines on how the identified key issues could be approached. Specific recommendations and action plans will be proposed, that will initiate and facilitate the implementation process. The reconstruction of the urban form and environment should primarily be seen as a process and not as a single action plan. The implementation strategy will be categorised or classified into two main development approaches, namely Development Management and Project for Implementation.

- **Proposed Design and Establishment Parameters**

Appropriate and practical design and establishment parameters will be identified as shown in Table 4.

**Table 4: Proposed Design and Establishment Parameters**

	Items	Contents
i)	Legal Structures	An appropriate body/structure/authority/agency will be proposed to oversee the proposed process.
ii)	Key Objectives	<p>The identified legal structure will endeavour to achieve the following key objectives.</p> <ul style="list-style-type: none"> <li>• Development facilitation</li> <li>• Development coordination</li> <li>• Project management</li> <li>• Project administration</li> <li>• Sourcing development funds</li> </ul>
iii)	Management	Appropriate management structures will be investigated and proposed taking due cognisance of the management needs and requirements related to aspects such as in-house responsibility for implementation, outsourcing or privatisation.
iv)	Funding Options	Alternative and appropriate funding options will be addressed with a view to comprehensive business and financial plans.
v)	Policy Components	Policy/legislative issues, which need to be addressed as a result of the proposed SDF, will be addressed. In this regard, specific attention will be given to operating policies, financial policies, administrative policies and human resource development.
vi)	Time Frames	Reasonably achievable time frames to implement projects and to achieve the goals and objectives addressed in the IDP will be prepared.

## 4.0 TIMEFRAME AND DELIVERABLES

### 4.1 Timeframe

The activities begun in November, 2008 and were supposed to be completed in April, 2010. However the development of the Luangwa will now be completed in July, 2011. We lost more than a year and four months in the formulation process. The initial plan assumed that it would take us eighteen months. The first phase would have taken us seven month, the second phase over five months and the third phase six months in terms of phasing. Figure 6 shows the timeframe of the planning process:

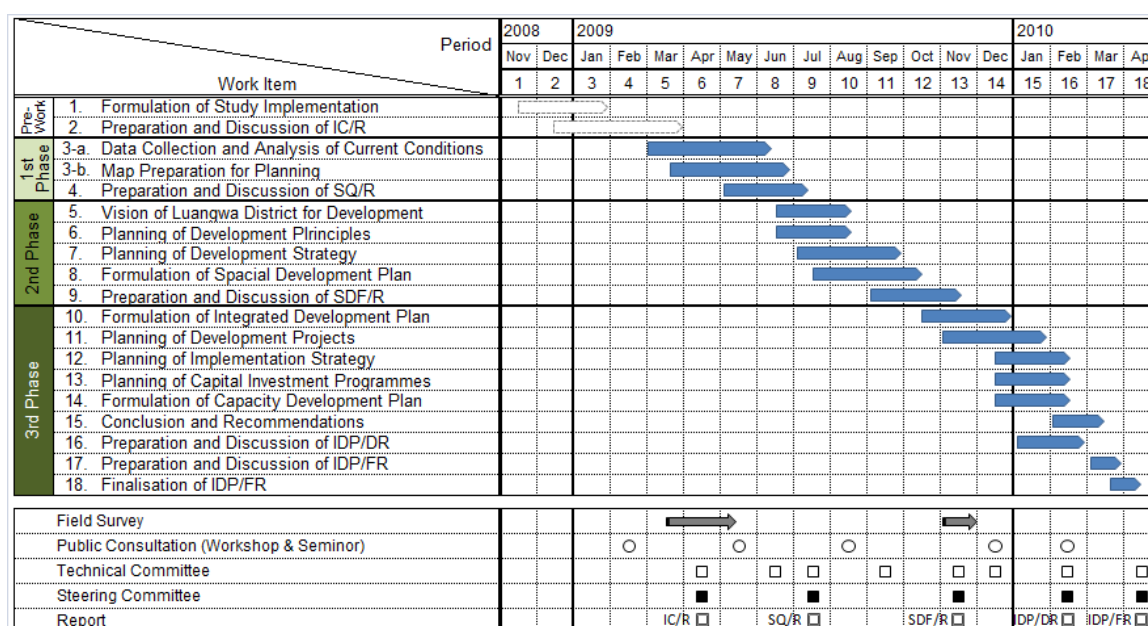


Figure 6: Timeframe

### 4.2 Deliverables

The deliverables for the IDP are the Preliminary Report, Status Quo Report, Spatial development framework and the IDP report as shown in Table 5.2. The outputs shown in these deliverables will be supported by GIS, in particular, SDF/R and IDP/R will largely be based and dependant on GIS.



**Table 5: Lists of Deliverables**

	Deliverable	Contents	Submission Time
i)	Inception Report (IC/R)	The approach and methodology for the formulation of the IDP	April, 2009
ii)	Status Quo Report (SQ/R)	Data collection and analysis of current conditions	November, 2009
iii)	Spatial Development Framework Report (SDF/R)	Formulation of development strategy and framework	June, 2011
iv)	Integrated Development Plan Report (IDP/R)	Finalisation of the formulation of the IDP with overall outputs	August, 2011

## 5.0 CHALLENGES

Mainly the challenges have been:

- The inconsistencies in funding for the development of the IDP impacted negatively on the completion of the project. One year has been lost.
- Lack of skills particularly in the use of the GIS software impacted on the pace of completing the plan as it was more of a “on the job training” basis in the use of GIS software in data storage manipulation, analysis and production of Luangwa maps.
- The district had very little baseline data; most of the baseline data had to be collected as it had never even existed.
- The public consultation proved to be long and very stressing but very beneficial to the whole process.

## 6.0 CONCLUSION

The development of the Luangwa IDP has made a lot of progress and also it has attracted a number of developments to the district. Of particular importance are the connection of the district to the national electricity grid, the rehabilitation and upgrading of water supply infrastructure, construction new hospital, health facilities and high schools, rehabilitation of road and construction of the first ever industrial solar electricity generation plant in the country and a lot of developments in the tourism sector.