

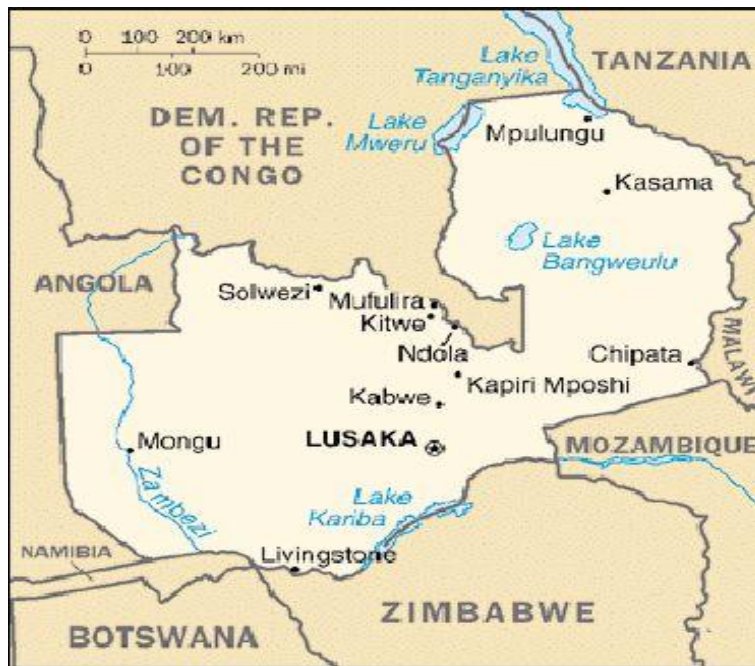
Integrated Development Planning and Disaster Risk Management: A Case of Luangwa District

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Background: Zambia

Zambia is a landlocked country located at south central part of Africa and has a total area of 752,000, 000 square kilometres. Lusaka is the capital city of Zambia and is located in Lusaka Province. Lusaka Province is located between longitudes 27° and 30° east and latitudes 14° and 16° south. It covers an area of about 22,000 square km and has 2,190,000 ha of land of which 55% is arable.



The Province has three major rivers namely Zambezi, Kafue and Luangwa. It lies on highland plateau with a valley and an escarpment along the eastern and southern parts. It has an altitude ranging from 300 to 400 m above sea level in the valley and 1,200 – 1400 m above sea level on the plateau. The plateau has fertile soils and good rains as opposed to the

valley with poor soils and insufficient rains. Lusaka City is the administrative capital of Zambia, making Lusaka Province a hive of activity.

Population and Demography

Lusaka Province, though considered to be the smallest province in terms of land size, has the second largest population of 1,533,789 people.¹ The Population Annual Growth Rate as from the year 1990 to 2000 was 3.5%, the highest in the country (CSO, 2003). The Province also has the highest population density of 63.5 persons per square km (CSO, 2003). There are four (4) Districts in Lusaka Province, these are: Chongwe, Kafue Luangwa and Lusaka. In the year 2003, Chongwe District had the highest annual growth rate of 4.2%, followed by Lusaka District with 4.0%, Kafue District with the growth rate of 3.2% and Luangwa District 2.6%. More than 78% of the population in the province is concentrated in Lusaka District where as Chongwe has 9.9%, Kafue 10.8 %, and Luangwa 1.4 %.²

Health and Economy

Malaria and fever cases are reported as the most common illnesses nationally at 42% across all ages and provinces. Ill persons visited mostly government-owned institutions representing 49% of the total population.

Zambia has in the past few years (2002 – 2005) registered positive economic growth during the implementation of the Poverty Reduction Strategy Paper (PRSP) and the Transitional National Development Plan (TNDP). Real GDP growth averaged 4.8% per year, up from an annual average of 2.2% in the preceding years. Growth exceeded the 4% target identified in the PRSP/TNDP. The improvements in the performance represented a marked reversal of the economic stagnation experienced in the 1990s. Per capita income grew at 2.3% annually. These positive growth trends are due to several factors that include favourable global economic conditions and the overall impact of the economic reforms that started in the early 1990s. As a result of these trends the country has experienced rapid expansion in the mining and construction industries. The construction sector has recorded rapid growth as a result of private construction activities, especially in residential housing in the main urban centres. Manufacturing and tourism also recorded strong growth, averaging 5.2 and 7.4%, respectively. Growth in the agricultural sector averaged 2.6%,

1 Republic of Zambia, Central Statistics Office (CSO): Living Conditions Monitoring Survey Report 2004.

2 Republic of Zambia, Central Statistics Office (CSO): Living Conditions Monitoring Survey Report 2003.

despite variations in the weather patterns as well as inadequate infrastructure and generally poor market access.³

Shelter Related Fact and Figures

The availability of adequate housing is a pre-requisite to national economic development, as it is a basic need after food and clothing. Housing is one of the most important indicators of poverty in the country. In Zambia, inadequate housing is more pronounced in the low income groups which constitute the majority of the country's population.

The National Housing Authority (NHA) during the year 2004 constructed a total of 186 houses within the country as compared to 122 units in 2003. Of these houses 9 were high cost, 84 low cost and 95 medium cost. In addition, Government through the Ministry of Local Government and Housing built a total of 21 low cost housing units in three districts. The housing deficit however, is mostly on the part of housing for low income groups in the country as a whole.

Percentage distribution of households by Tenancy Status by Rural/Urban, Stratum and Province

Residence/Stratum/ Province	Owner Occupied	Rented from Institution	Rented from Private Land Lord	Free Housing	Other	All	Total No. of House holds
Lusaka Province	37.2	1.4	47.3	14	0.1	100	309,949

Inappropriate laws relating to land tenure systems, inadequate budgetary allocations for provision of infrastructure and services and lack of affordable building materials are some of the constraints deterring housing delivery. Furthermore, land alienation and Deed Registry procedures are highly centralised and cumbersome.

Lusaka Province has among the highest number of houses with access to basic services and infrastructure. Out of the total population of Lusaka Province, 24% have access to tap water, and 16% use kerosene for lighting and 40% of Lusaka's population use electric power for cooking purposes.⁴

Housing Policy

For decades Zambia had made no deliberate effort to look into the housing sector until 1996 when the first National Housing Policy was drawn. The main goal of the housing policy is to provide adequate affordable housing for all income groups in Zambia. The main

³ Republic of Zambia, Ministry of Finance and National Planning: Fifth National Development Plan 2006 – 2010

⁴ Republic of Zambia, Central Statistics Office (CSO): Living Conditions Monitoring Survey Report 2003.

objectives of the policy include: allocation of a minimum of 15% of the national annual budget to housing support a sustainable housing development programme; making serviced land available for housing development and streamlining the land allocation system; streamlining of building standards, regulations and other controls so that they accord with the capabilities, needs and aspirations of the various sections of the population; assisting the poor to acquire decent shelter through alleviation of their affordability problems.

Actors in Shelter Delivery and their Roles

There are various actors in the shelter delivery industry that include both private, public quasi-government and non governmental organisations. Among the various actors in shelter delivery are the following key institutions:

- 1 The Ministry of Local Government and Housing works on behalf of central government in the process of shelter delivery. Some of its roles include: over-seeing and coordinating activities of national statutory and facilitating institutions; monitoring national, provincial and local performance of housing delivery; promoting gender equality in shelter development and accounting to Parliament for the performance of the housing sector against set targets and efficiency parameters.
- 2 The National Housing Authority (NHA) is a statutory body created by an Act of Parliament and has the mandate to advise Government on matters pertaining to housing. The NHA is the sole institution given power under the law to amend the National Housing Authority Act to bring it in line with current reform thinking. The main roles of the NHA include: promoting home ownership through provision of affordable shelter; providing technical assistance to local authorities in the housing sector; undertaking research and development on low-cost housing and constructing, managing and maintaining housing estates.
- 3 The main role of Local Authorities in housing is to create and allocate land for housing purposes and to provide and maintain infrastructure services intended to open up land for housing development.⁵

⁵ Republic of Zambia: National Housing Policy 1996

Organisation

The Department of Physical Planning and Housing is responsible for physical and socio economic planning in Lusaka Province. It comprises two sections: Regional and Physical Planning. The Regional Planning Section coordinates socio-economic development in the province while the Physical Planning section caters for the administration of the Town and Planning Act Cap 283 of the Laws of Zambia. The department is actively involved in urban and regional planning. Physical planning is concerned with development control and granting of Planning Permission to all land developers on state land. In order to achieve this, a statutory body, the Lusaka Province Planning Authority (LPPA), was established to ensure transparent planning decisions.

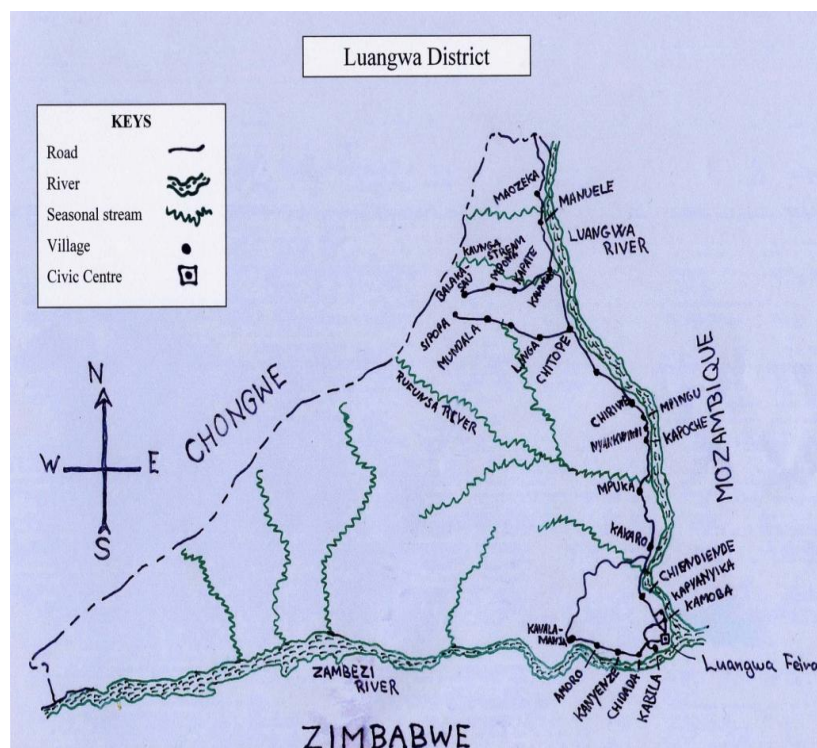
One of the goals of the Department of Physical Planning and Housing is to create an enabling environment for orderly human settlements and regional development. Furthermore, the department promotes the efficient and effective delivery of quality and affordable housing by local Authorities and other stakeholders. The department is also actively involved in upgrading of unplanned settlements, through planning and upgrading of these areas to statutory housing improvement areas. Currently the department is in the process of developing an Integrated Development Plan (IDP) for Luangwa District.

The Problem

Background to Problem

Luangwa District, formerly called Feira is a peripheral town of Lusaka Province located on the eastern part of the province, bordering Chongwe District to the west, Mozambique to the east and Zimbabwe to the and south. The district centre is approximately 350 km from Lusaka and is located at the confluence of the Luangwa and Zambezi Rivers. The history of Luangwa District dates back to the 17th century when a group of Portuguese colonialists from Goa established a trading post in Zumbo (Mozambique) and Feira. The first township was established in 1902.

Luangwa District is located in a valley, composed of the lower Zambezi and Luangwa Valleys at an altitude ranging between 600 to 800 m. Temperatures get to a maximum of between 40 to 45° Celsius in the summer (October, November and December) and a minimum of 20 to 30° Celsius in winter (May to July).



The hot climate results in high evaporation rates causing dry weather. The rainy season is short, causing the area to be highly prone to drought spells. On the other hand, the area is prone to flooding when the Luangwa River bursts its banks.

Floods generally have such an adverse effect on the development of Luangwa in terms of infrastructure and services, and the general livelihood of the population of Luangwa is also affected negatively.

The district is also part of a National Park and Game Management Area (GMA) and has a variety of animal herds that include elephants and a variety of bird species. The district therefore, forms part of the animal corridor for the GMA. People living near such areas are vulnerable to attacks from animals and infestations on their crops.

The population of the district is mainly concentrated along the Zambezi and Luangwa Rivers. The Luangwa River bank has a higher population than the rest of the district due to the main road link passing along the river. The district is sparsely populated with an estimated population of 26, 650 people in the year 2007 and a population density of approximately 6.5 people per square Kilometre and an annual growth rate of 1.1% according to the 2000 census.⁶

⁶ Republic of Zambia, Luangwa District Council: Luangwa District Situation Analysis (2007), Unpublished.

Frequent inspections of the area by the Department of Physical Planning and Housing reveal that the district though small, is characterised by unplanned settlements along the river and GMA. Settlers in the area are mainly fishermen who have formed fish camps which have grown over the years. Other settlers in the area are hunters interested in animals around the game reserve area.

Effects of the Floods

The floods have had adverse effects on the population of Luangwa in diverse ways. The report submitted to the Department of Physical Planning and Housing reveals that the effect of the floods in the 2007/2008 season have not been as bad as the 2006/2007 season, where the losses, were higher and the district was cut off from the rest of the country due to the road link being severely flooded and washed away.

In the 2007/2008 farming season, field visits by the Ministry of Agriculture reveal that 8% (474 hectares of land in low lying areas in the district) of farmers were affected by floods and their fields were washed away, while 92% of the farmers who cultivated upland were not adversely affected by the floods.

Parts of Luangwa Road, which is the main road link to other towns was submerged by floods and parts of the road were washed away. A number of other roads were also washed away making it difficult to reach some of the far flung areas in the district.

A survey undertaken within Luangwa reveals that a total of 28 houses collapsed due to floods. The residents of such areas are vulnerable to loss of infrastructure and other forms of livelihood. Being poor, they are further reduced and their level of poverty increases as does their vulnerability to the effects of the weather if alternative shelter is not found in good time.

Other losses incurred include the death of livestock such as goats, cattle, sheep and chickens. These were mainly due to disease resulting from floods and predators. Some animals were also swept off by the current in their grazing areas along Luangwa River.

The floods have had an adverse effect on water supply and sanitation in Luangwa as rivers and streams were contaminated as a result of poor sanitation as a result of lack of sewerage services and lack of water treatment. A laboratory test undertaken indicated that most sources of water contained faecal matter.⁷ Though no disease outbreaks have been

⁷ Luangwa District Council: Disaster Situation Report , 2007 (Unpublished)

reported, the people of Luangwa are at great risk and are vulnerable to waterborne diseases, (see attached addendum).

Problem Identification

Luangwa District lies within a marginal area that is prone to floods in the rainy season and is also prone to serious drought periods. Most times the district is dependent on relief food and various forms of help from the government. Parts of the district also lie in the animal corridor, making it a high risk area for settlement.

District has had very little positive development, in the past decades despite its proximity to the administrative capital of the country. Its lack of development maybe related mostly to its climate, poor terrain and sparse population. In recent years the population growth in Lusaka has necessitated the need for the development of this district, which is a potential trade route to Zimbabwe and Mozambique. The district is generally marginalised and has for a long time lacked relevant forms of development that include: electricity, housing, water and road infrastructure among others. Furthermore, the district neither has a water treatment plant, nor a waste water treatment plant.

The growing number of unplanned settlements in the form of fish camps is a source of concern, as these communities are more vulnerable to waterborne diseases such as cholera. Furthermore, these communities are vulnerable to disasters such as drought, floods and dangers associated with animal activity.

The management of risks and disasters in the province is highly centralised and disaster risk management is therefore not as effective. Planners are scarcely involved in the process of disaster risk management as it is not seen as their role, despite research showing a correlation between disasters and the built environment.⁸

Climate change has posed a great challenge to the development of the district as in recent years there have been recurrent droughts and floods. Most times the district has been dependent on relief food and various forms of help from the government through the Disaster Management and Mitigation Unit. Tours of the district by the Ministry of Agriculture and Programme Against Malnutrition (PAM) reveal that of all the districts in Lusaka Province, Luangwa has the least food security as it has the least food yields, due to droughts and floods.

⁸ Wamsler C. (2007a) *Urban Settlement Development as a tool for Reducing and Financing the Risk for the Urban Poor*, PHD Thesis, Lund University (unpublished)

Problem Statement

The development of a town such as Luangwa District poses a great challenge to the Planning profession and indeed other professions in Zambia's growing economy.

The major problem in the planning profession and indeed other professions is lack of coordination among organisations and the failure by the government to utilise the resources at their disposal. Furthermore there is lack of collaboration among various sectors, thereby creating in most cases parallel structures that render most professionals ineffective. There is a weak link in the Public-Private Partnerships. The private sector is scarcely involved in developmental processes. Failure to plan ahead with disaster and risk reduction in mind has cost Luangwa district a lot on the part of the residents who meet with annual losses and are vulnerable to disease and loss of livelihood. Therefore, there is a need to be more proactive in planning for such areas rather than reactive, only responding to the effects of disaster.

The need for an Integrated Development Plan (IDP) in Luangwa is great since the district has not had a comprehensive plan that is inclusive of all aspects of development in decades. An integrated development plan is defined as a multidisciplinary, multisectoral approach to planning. Issues in the relevant economic and social sectors are brought together and analyzed vis-à-vis the needs of the population and the problems and opportunities of the associated natural resource base. A key element of this process is the generation of investment projects, defined as an investment of capital to create assets capable of generating a stream of benefits over time.⁹

The formulation of an integrated development plan is a way forward for Luangwa District as it will enhance the development of this district which has a backlog in various forms of development such as housing, industry (including tourism), infrastructure such as roads, electricity and a good water system.

Proposal for Change and Improvement

The above-mentioned problems have necessitated the need for an integrated development plan that will be inclusive of all the lacking services that will improve the livelihoods of the affected communities. Furthermore, there is need for Planners to take into consideration aspects of disaster risk management in the formulation of whatever form of plan be it a structure plan or comprehensive development plan. This is in order to ensure sustainable development in a cost effective way. Planners must be proactive in seeking to

⁹ U.S. Agency for International Development, 1991

reduce disaster risk at all levels of planning. It should be noted however that there is a tendency by urban planners to only consider physical aspects of planning such as infrastructure and housing whilst ignoring aspects of risk reduction. In the end, planners are reactive to disasters rather than proactive and they do not perceive their role in disaster risk management.¹⁰

An integrated plan that is cognisant of physical aspects of planning without taking due consideration of the need to reduce risks could be failing of bringing forth holistic development to an area such as Luangwa which is prone to disaster seasonally. It is therefore, imperative that the development of the district takes an integrated approach, if any meaningful development is to take off in Luangwa District. An integrated plan for the development of Luangwa district will take into consideration various aspects of development other than physical or infrastructure development.

An integrated approach to the development of Luangwa will also involve various stakeholders who will be relevant to the provision of services in the district. Furthermore, an Integrated Development Plan must from the outset take into consideration aspects of disaster and risk management, in order to reduce on the possible negative impacts of disasters that occur from time to time.

Lastly, there is need for public private partnerships (PPP) in order to foster development for Luangwa. There is need for the government to work hand in hand with the private sector, nongovernmental organisations and the international community especially in the delivery of services such as housing, tourism development and investment in infrastructure such as water, electricity and roads.¹¹

SWOT ANALYSIS

STRENGTHS	WEAKNESSES
Incorporating Disaster and Risk Management at Planning stage will greatly reduce the risks and vulnerability of the people in Luangwa District through influence of the Provincial Development Coordinating Committee (PDCC)	Maybe difficult to influence policy at a higher level due to centralised disaster and risk management and lack of direct of Planning Office at regional level
Ability to influence the planning process at inception, to include aspects of disaster and risk management which would not have been included initially	In recent past, the Department of Physical Planning and Housing has not been directly involved in disaster and risk management
Risk reduction as a strategy for development will have long-term advantages for communities and for the	Lack of coordination at implementation stage could hinder progressive development

¹⁰ Wamsler C. (2007a) Urban Settlement Development as a Tool for Reducing and Financing the Risk for the Urban Poor, PHD Thesis, Lund University (Unpublished)

¹¹ Tannerfeldt G. and Ljung P. (2006): More Urban Less Poor, Earthscan Publishers, UK

institutions involved in disaster management and mitigation	
OPPORTUNITIES	THREATS
Make other stakeholders better appreciate the planning roles in the development process	Slow implementation of the IDP due to low/intermittent funding could negatively affect time-frame within which the proposal could be completed
Work with the Luangwa Municipality to solicit for various forms of development that will in turn reduce the vulnerability of affected communities	Lack of proactivity on the part of the municipality could thwart any form of development being proposed in the area

Source: Formulated by Author

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