



INTRODUCTION

This chapter sets the scene by introducing the research objectives and research questions of this study in the context of Lake Naivasha waterfront. Then, the chapter provides a description of the thesis's structure, highlighting the most important points of each part.

1.1 Background of the research

A waterfront is the interface between land and a flowing surface water body. It is also referred to as a riparian reserve. Roles of riparian areas vary from ecological, aesthetical, and economical roles to other general uses. The Lake Naivasha riparian has some of the richest ecosystems characterized by extensive acacia trees, an amazing spectacle of wildlife, and is set in one of the most beautiful sceneries in the Great Rift Valley. The Lake's fresh water supports a thriving floriculture industry, the third foreign exchange earner for the country, the geothermal power plants at Olkaria and a booming tourism industry. Because of the economic benefits derived from these activities, the area is teeming with human population.

Traditionally, the area's economy was dependent on fisheries, boat making and agriculture. Today, these economic sectors have been overshadowed by the development of the floriculture, tourism and energy industries. Population growth spurred by these industries has resulted in rapid urbanization around the lake threatening its future. As a result riparian land perceived as underutilized has been

prone to spontaneous encroachment and illegal occupation especially by the urban poor. Unplanned settlements have sprout around Lake Naivasha, each housing tens of thousands of people working directly in the floriculture industry and resultant service industries.

The largest centres of aggregation of settlements are: Kihoto, Karagita, Kwa Muhia, Kamere and Kasarani. Collectively their population could amount to 250,000 inhabitants, all living in close proximity to the lake. These communities are mostly composed of young people who immigrate looking for jobs and who are ready to move elsewhere as opportunities arise. As a consequence, the structure of the built-up area comprises mostly compounds with large numbers of small rooms rather than family estates and homes. All residents tend to settle in close proximity to the Moi South Lake road for easy accessibility to utilities and services.



Figure 1.0 Giraffes grazing at Lake Naivasha Source: author



Figure 1.1 Lake Naivasha county club (Source author)



Figure 1.2 Wildlife grazing freely at Lake Naivasha country club (source author)

1.2 Problem Statement

Twenty years ago the population of Naivasha less than 300,000 people. By 2019 it is expected to reach around one million. The flower farms are a major cause of this growth in Naivasha, followed by the development of the tourism and fishing industries (Daily nation n.d.) Increased illegal activities by the ever expanding informal settlements is depleting and contaminating the lake. Increasing demand for land for farming and settlement has led to subdivision of large tracts to small lots without proper zoning and a land management plan. According to the Lake Naivasa boat owners' association

sewerage from Naivasha is flowing into the lake. Uncontrolled development and pollution has brought numerous challenges to the residents including disease outbreaks such as Cholera (Daily Nation).

Flower farms have also contributed greatly to the pollution of the lake and the declining water levels. The natural movement of water is also on the decline in the area, due to deforestation for charcoal and land clearance for farming. The waterfront is lined by some 60 flower farms growing cut flowers for export to the EU mostly of which until recently have been dumping chemical waste into the lake.

This push and pull phenomena with nature needs to be addressed now by establishing an adaptive rather than a coping strategy in which the lake's ecosystem can coexist with the various land-uses. The ecosystem damage in this part of East Africa is another facet of a wave of unmistakable evidence in Africa and every other continent that climate change, population growth, and the pursuit of industrial wealth is starting to buckle the Earth's basic biology. The principle resource most affected is available supplies of clean fresh water. This study however, tackles issues related to landscape and urban design. It focuses on informal settlements at the shores of Lake Naivasha, at Kamere & Kihoto.

1.3 Research Objectives

Using a blend of qualitative and quantitative approaches the study aims at:



Figure 1.3 A case of flooding at the edge of the lake (source LNRM)

Examining the nature of land use and activities undertaken within riparian Land on Lake Naivasha.

Establish the causes of informal settlement developments and identifying guidelines that can be used in developing prospective waterfront communities

- To identify the major causes and effects of informal settlement development.
- To determine the impacts of settlements and development projects on the Lake's waterfront.
- To identify the extent environmental degradation by illegal activities such as farming,

deforestation and illegal settlements in the area.

Identifying opportunities for sustainable development of human activities and conservation of the riparian reserve.

- • To determine how ecotourism can be integrated into community development
- • To determine the best utilization of the riparian reserve, to prevent future encroachment

This study seeks to investigate the challenges facing the Lake Naivasha waterfront through the following **research questions**:

1. What is the nature of land use and characteristics of the Lake Naivasha waterfront?
2. What are the causes of informal settlement developments and what guidelines can be used in developing prospective waterfront communities?
3. What opportunities arise from the existing push and pull phenomena with nature for the

sustainable development of human activities and conservation of the riparian reserve?



Figure 1.5 Facebook founder, Mark Zuckerberg enjoy a tour on the lake in 2016 Source: Inra.or.ke



Figure 1.7 Impalas grazing at Lake Naivasha (Source: word surprise.com)



Figure 1.8 A family of hippos basking at Lake Naivasha (source: hipposworld.com)



1.4 Justification of the study

The Nakuru county government envisages Naivasha becoming an ecotourism and conferencing destination through a new masterplan (to be ratified by the County Assembly). There is a serious concern that the masterplan does not take into account the impact of pollution from informal settlements, flower farms and the various Geothermal power projects currently underway and plans to invest massively in industrialization. The lake, which is listed as protected by the **Ramsar Convention on Wetlands**, was once an incredible tourist attraction. Development around the lake has resulted in deforestation and now wildlife is disappearing. Little or no action has been taken in the preservation of the lake. Hence, there is a requirement for regulations to be put into place by the county government as well as an ecological risk assessment to help map and identify high risk elements in and around the lake that compromise the ecosystem.

While it is obvious that pollution and general degradation of the lake and its catchment is occurring there lacks a study that has delved into the causes of these problems. The proposed study intends to fill the gap and contribute to informed debate. The study focuses mainly on the informal settlements around the lake with an aim to propose some ways of nurturing the opportunities through making the environment legible in order to attract business Investors, tourists, and even other kinds of visitors.