

NAME: FELISHINA W MAINA

EMAIL: felishmaina@gmail.com or fellymaina@yahoo.com

PHONE NUMBER: +254707045812

ADDRESS: 36 MUKURWE-INI, KENYA

**OCCUPATION: STUDENT AT UNIVERSITY OF KABIANGA, KERICHO.
TAKING BACHELOR IN AGRICULTURAL BIOSYSTEMS AND
MANAGEMENT CURRENTLY IN FOURTH YEAR.**

**INTERNSHIP: TECHNICAL OFFICER AT MINISTRY OF AGRICULTURE,
KASARANI STATION.**

DECLARATION.

I, Felishina Maina, hereby declare that this this research report is my original work and it has not been submitted before any institution for any purpose.

ABSTRACT

The purpose for writing this report is to provide details of the research period in korogocho slums. It includes the environmental background in Korogocho slum, detailed information on distribution of trees in korogocho and some recommendations for tree plantation in the area. I did a full research majorly on the above and wrote this report.

DEDICATION

I wish to dedicate this report to all the staffs from Little Bees International especially Mr. Go.

TABLE OF CONTENT

LIST OF ABBREVIATION

i.e. - that is

M-meter

Mmt-monthly mean temperature

Mat-monthly annual temperature

Mar-mean annual rainfall

Mm-millimeter

Ph.-potential humidity

BRIEF DESCRIPTION OF KOROGOCHO SLUM.

ENVIROMENTAL BACKGROUND.

Korogocho slum is one of the largest slum neighborhoods of Nairobi, Kenya. Its residents consists of more than thirty ethnic groups although most are from the kikuyu, luo and luhya people.it has about 100000 to 120000 people on 1.5 square kilometers of land owned by the government of Kenya. The slum has 9 villages i.e. korogocho A, korogocho B,grogon A,grogon B,gitathuru,kisumu ndogo,ngomongo and nyayo.

The slum environment is mainly characterized by the following:

- Solid waste management. The area has lots of solid wastes that are thrown everywhere within the area.moreso,there is the largest Dandora dumping site just beside it making the residence of korogocho less concerned about waste management.
- Air pollution. Dust and smell are the major contributes of air pollution in the area. Dust that pollutes the air comes from the unpaved roads, unpaved pedestrian accesses and open spaces. This dust can highly lead to respiratory effects, eye infections, food and water contamination and also body irritation. Air pollution by smell results from garbage, pit latrines, waste waters, scattered human wastes, polluted water ways and stagnant waters. This smell can lead to respiratory effects, discomfort, irritation, vomiting, loss of appetite and also headaches.
- Noise pollution. This pollution is contributed by several factors as blacksmith activities, loud music from electronic shops, and noise from bars and from religious gatherings.it can result to hearing problems, headaches, disruption from sleep and discomfort.
- Water pollution is another condition in the slum and it results from solid wastes, water drainages, overflowing pit latrines, human waste and siltation. Water pollution leads to water borne diseases and smelly water.
- Safety and security situation. When you are a visitor or a new person in this area you do not feel safe, there are so many idlers just staring at you. There are crimes that are well known of the area as petty theft, burglary, rape, robbery and also murder cases. Youths are the most people dwelling in these criminal activities.

INTRODUCTION.

The purpose of this report is to survey the current state at korogocho slum environment and briefly discuss predicted advancements in the field. In order to accomplish this research, I visited korogocho slum during each day of my research to gain more information on the area also happened to talk to various residents from the area.

OBJECTIVES.

1. To improve the living condition of the korogocho residents
2. Prepare sustainable integrated plan for upgrading korogocho slum
3. Implement concrete improvements to ensure visible impacts.
4. to mitigate climate change by planting trees and also enrich biodiversity.

DISTRIBUTION OF TREES IN KOROGOCHO.

The distribution of trees in korogocho slum is based by the demand on the locals. They plant trees according to one's availability and also their needs as for shelter, firewood, fences or even medicinal purposes n not following any environmental requirements. This is mostly because they got limited knowledge about trees species and their requirements.

Most trees are planted along the river banks, in their small gardens or even planted as fences to their houses. There are many kinds of trees in the area but only found one by one i.e. only one tree of each kind in the whole location. Although there are trees that are multiples since they might be cheap to acquire or the residents have same interests in the same trees.

Some of the trees that are found in most part of the locality have been explai be

- **CASUARINA EQUISETIFOLIA.**

A she oak species whose native extends from Burma and Vietnam throughout malesia east to French Polynesia, new Caledonia and Vanuatu and south to Australia. It's an evergreen tree growing to 6-35m tall.

ADAPTATION

Rainfall: 700-2000mm and can do well in dry seasons..

MMT: 22 -27degrees Celsius

Soil: ph. of 5.0-7.7.all kinds of soils apart from clay.

Growth: faster.

USES

Prevents soil erosion

Acts as wind breakers

Used for shingles and fencing

The branches when harvested are said to make excellent hot burning firewood.

It's an actinorhizal plant able to fix atmospheric nitrogen.

- **CROTON MEGALOCARPUS**

Grows to 15-35m. it has a distinctive layering of branches and a rather flat crown. Has a bark that is dark grey, rough and crackling.

ADAPTATION

MAT: 11-26 degrees Celsius

MAR: 800-1900mm

Growth: faster

USES

Fodder. The seed is incorporated in poultry feeds as its protein content is high (50%)

Fuel: well dried nuts are used together with charcoal as firewood

Medicine: seeds contain up to 32% oils which have been used favorably as medicine.

Shade: forms a flat crown and has horizontal layers of branches which make it useful in providing light shade.

Used also a fences.

● **ACACAI XANTHOPHOLEA(fever tree)**

A large tree 15-25m tall with a crown that is somewhat spreading. Its bark is smooth, slightly flaking, and yellow to greenish yellow.

ADAPTATION

Altitude: 600-2100m above sea level

Soil: sandy soils

Temperature: can tolerate several degrees of frost

Rainfall:

Growth: faster.

USES

Erosion control: groves of this tree can be planted next to rivers and streams on the farm to curb soil erosion.

Provides shade

Fixes atmospheric nitrogen

It's a decorative tree

Used as fences

Leaves and branches are fodder for livestock.

- **OLEA AFRICANA**(Africana olive)

A shrub or a small to medium sized tree 5-10m in height. Bark is grey to brownish-blackish, smooth to rough when old.

ADAPTATION

Altitude: 800-2500m above sea level

Rainfall: resistant to drought

Temp: resistant to frost

Soil: all soils including acid soils

Growth: faster

USES

Produces hard wood timber

Fodder for livestock

Source of fuel

Medicine: the root or bark decoction is used as a remedy for malaria

Food: the main olive products are olive oil and edible olives.

CHALLENGES

Theft: there are so much insecurity in the area that one is so much insecure walking around. Theft has been the main challenge for those new to the area. Their mobile phones, money, cameras and other gadgets are taken from them

Air pollution: there are smells of all kinds in the area and also the dust in the area makes one very uncomfortable and by the end of the day i always had a headache.

Waste materials around the area makes walking around not easy.

CONCLUSION

This report has identified that there are trees present in korogocho slum. it being near the capital city does not hinder people to grow trees or even do farming. Several types of trees are found in the region for example casuarina equisetifolia, croton megalocarpus, fever tree, African olive and just to mention but a few.

One common thing with these trees they are fast growing hence one do not take a life time to wait for their maturity and start enjoying from their services and products. Secondly they lie under the same temperature range, soil type, altitude and also rainfall.

RECCOMENDATION

The following are some recommendations:

- The NGO group should be able to help the children and women groups even when the period of their time in Kenya is over since if they leave and the groups are left alone they tend to deteriorate due to lack of moral and financially support.
- Little bees international should come up with an activity where they can help the women group establish their own tree nursery.in this they can be able to plant more trees in the area from their own nursery. They can also sell the seedlings to other people for planting.
- Thirdly I would like to recommend that there be an introduction of fruit trees mainly from japan so that the residents of korogocho can enjoy the privilege of having fruits from another country.
- The trees planted in korogocho should be fenced alongside since as we all know this place is not secure place not everyone is concerned about the trees being planted. Hence they can destroy the growing trees.

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APPENDICES

Korogocho neighboring river



croton megalocarpus





Fever tree



African olive

