



**BUSITEMA UNIVERSITY**

**FACULTY OF NATURAL RESOURCES AND  
ENVIRONMENTAL SCIENCES**

**ASSESSING CHANGE OF THE SOCIAL-ECONOMIC STATUS  
AMONG ROCK QUARRRYING COMMUNITIES: A CASE OF  
NGETTA SUB-COUNTY, LIRA DISTRICT.**

**BY**

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FULLFILMENT OF THE REQUIREMENT FOR THE AWARD  
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## DECLARATION

I **OBONG ANTHONY** declare that this research report is my original work. It has never been submitted to any University or higher institution of learning for a degree award or any other academic award.

Signature.....

OBONG ANTHONY

Date.....8/07/2019

## APPROVAL

This is to acknowledge that the work entailed “Change of socio-economic status among rock quarrying communities, a case study of Ngetta Sub County, Lira district” has been done under my supervision and is now ready for submission to the Faculty of Natural Resource Economics and Environmental Science of Busitema University.

Signature

.....

University Supervisors' Name: **Mr. Kifumba David Nsajju.**

Date.....

9/9/2019

## **DEDICATION**

I would like to dedicate this report to my family especially my Parents Mr. Egwal Martin & Mrs. Milly Egwal who have sacrificed everything for my education. Thank you very much for giving me such a long academic and moral foundation which I have managed to come this far.

May the good lord reward and bless you.. In the same way, I would like to dedicate this to my brothers such as Ambrose Abongo, Peter Ogwang, and my sisters; Eveline and Joan, Jenifer Amuge for the material and financial support.

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## **LIST OF ACRONYMS AND ABBREVIATIONS**

ASQ	Artisanal Small-scale Quarrying
CSR	Corporate Social Responsibilities
DSIP	Development Strategy and Investment Plan
GoU	Government of Uganda
LRA	Lord's Resistance Army
LSQ	Large Scale Quarrying
NAADS	National Agricultural Advisory services
NEAP	National Environment Action Plan
SPSS	Statistical Package for Social-economic Scientists.

## DEFINITION OF KEY TERMS

A quarry	Is a place where quarrying activities are carried out
Quarrying	Is a process of extracting and breaking off roc particles
Impact	Refers to any positive or negative result of an activity/ action
Impact significance	Is the accessibility of the impact in terms of the existing criteria usually attributed to in terms of an existing standard of permissible change
Impact magnitude	Is the description o how severe, moderate, low) is synonymous with “size”/ “amount”/ “quantity” such as number o people registered dead during rolling of rocks.
Tolerable	Is the measure of the rate at which the impact significance is acceptable.
Intolerable	Is measure the of rate at which the impact significance is unacceptable.
Impact mitigation	Is an alternative way of reducing the impact that result from an activity

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## ABSTRACT

Majority of the world's poor living in rural areas are mainly engaged in agriculture to support their livelihood. In spite of the all these, there is concern about the growing non-agricultural informal activities as alternative sources of income in Uganda. It is in this context that, this research study seeks to assess changes of the socio-economic status among rock quarrying communities engage in small scale stone extraction with specific objectives to identify the appropriate mitigation activities to the perceived threats of quarrying to the health of communities, compare economic contribution of stone quarrying against none stone quarrying activities towards welfare of households, and determine cost effective forest and related vegetation restoration measures for known lost environmental benefits as a result of quarrying activities in Ngetta sub-county, Lira district. The study relies on information collected qualitatively through individual interviews using a sample of 60 questionnaires coupled with personal observations in addition to documented data from published and unpublished articles on journals and internet.

Based on the findings, the results revealed that women are more involved in quarrying and farming than men. Significance level of quarrying impacts associated to dust pollution and vegetation loss was intolerant among the quarrying communities. However, the results also show severe level of magnitude of respiratory infections among the people doing quarrying due to dust pollution. The most appropriate mitigation measures to the perceived health threats suggested in this study is the use of nose masks to reduce exposure to dust pollution, tree planting to reduce wind speed and putting of humps on roads to reduce accidents.

In conclusion, different economic activities among rock quarrying communities improves the socio economic status of households' livelihood. However, quarrying is associated with the negative social and environmental health problems such as vegetation loss and respiratory diseases affecting the lives and the surrounding environment of the community in and around the quarrying sites in Ngetta. Therefore, it is recommended that protective gears such as noise mast should be provided to the people carrying out rock quarrying, involving communities in tree planting and putting humps on the road close to the trading centers.

# CHAPTER ONE

## 1.0. INTRODUCTION

### 1.1. Background of the study

#### 1.1.1. What is quarrying?

##### **A quarry**

A quarry was defined by the (National Geographic Society) as a place where rocks, sand, or minerals are extracted from the surface of the Earth. It was referred to a type of mine called an open-pit mine, because it involved opening the Earth's surface.

Although agriculture is known as one of the prominent economic activity, mineral extraction inform of quarrying is also seen to have played a critical role in the rural livelihood improvement with the estimation of 45% of the world's population being landless (Fellmann et al, 2005) which have motivated over 500 million people in developing countries to engage in occupations like small scale surface mineral extraction including quarrying for survival (wang et al, 2010). Such as in East Asia, Southeast Asia and Latin America, accessibility to natural resources plays a critical role in the livelihood conditions of people since the formal sectors in developing countries have very little potential in terms of job creation, (Ibrahim, 2007), thus the informal sector has become an attractive alternative for achieving livelihood needs. However in India, it has been estimated that the small-scale sector accounts for only 8% of national mineral output, and employs only 18% of the country's mine workforce (NISM, 1993, 1994), and similarly, contributions from women miners again, constitute a large segment of the workforce.

Thus, rock quarrying and stone crushing is a still global phenomenon, and has been one of the causes of concern everywhere in the world, including the developed countries (Lamneed and Ayodele,2010) with quarrying of natural stone, including sand, gravel and crushed rock, that represents the main source of construction materials used throughout the world. At the global level, production of natural stone products witnessed a substantial increase over the last decade, with an increasing number of countries including African countries like Nigeria, Ghana and Kenya involved in the production of natural stone. Worldwide the production of natural stone has increased by 30 percent in the last 10 years (World Bank Stone Report 2002).

However, quarrying activities exert tremendous pressure on limited soil and water resources, thus increasing the rate of erosion processes and subsequent damage of existing arable lands.

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