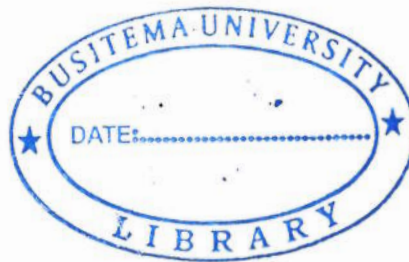


BUSITEMA UNIVERSITY

Faculty of Natural Resources and Environmental Sciences

**OPTIMUM CROP ENTERPRISE COMBINATION IN SUGARCANE
BASED FARMING SYSTEMS**

A case of sugarcane and maize in Busede Sub-county, Jinja district



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A research report submitted to the faculty of natural resource and environmental sciences in the partial fulfillment of the requirements for the award of the degree of Bachelor of Science in Natural Resource Economics of Busitema University

JUNE 2013

DECLARATION

I Nsubuga Benard, 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,

Nsubuga Benard
.....


NSUBUGA BENARD

Date *13/06/2013*

APPROVAL

This is to acknowledge that the work titled 'Optimal Crop Enterprise Combination in Sugarcane based farming systems a case of Sugarcane and Maize in Busedde Sub County, Jinja 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,



Assoc. Prof, Moses Isabirye

Supervisor

Date.....



DEDICATION

I dedicate this report to the students of Natural Resource Economics (NRE) Busitema University Namasagali Campus (2013), my friends and family especially my parents who have sacrificed everything for my education. Thank you for giving me such a strong academic and moral foundation on which I have managed to come this far. May the good Lord reward and bless you abundantly.

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I would like to thank God for enabling me reach this far in my academic life struggles

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Appendix 1. Some of the photos of the coverage of sugar cane and maize and trash alignment in the sugar cane plantations.

ACRONYMS

ANR _Average Net Returns

CBOs _Community Based Organisations

FAO_ Food and Agricultural Organisation

GDP _Gross Domestic Product

Ha _Hectare

Kgs _Kilograms

KSWL_ Kakira Sugar Works Limited

LP _Linear Programming

NEMA_ National Environmental Management Authority

NEPAD _New Partnership for African Development

NGOs_ Non- government organisations

NPV _Net Present Value

NR_ Net returns

PVs _Present values

RDC_ Resident District Commissioner

Shs_ Shillings

UGTL _Uganda Grain Traders, Ltd

USCTA _Uganda Sugar Cane Technologists Association

USSP _ Uganda Strategy Support Program

VAT _Value Added Tax

t_ Tones

ABSTRACT

The present study entitled "Optimum crop enterprise combination in sugarcane based farming system: a case of sugarcane and maize in the vicinity of Kakira sugar estate specifically Busedde sub-county, in Jinja District", it was undertaken to find a way how sugar cane and maize enterprises can be combined using the available limited resources in the study area in order to maximize profits and solve the problem of food security.

Simple random sampling technique was used in selecting the sample farmers. From the sub county of Busedde in the vicinity of Kakira sugar estate. A sample of 60 small scale sugarcane out growers was used in the study.

The required data were collected from the sample respondents by using a check list and personal interviews methods. Linear programming was used to develop optimum plans or solutions for maximization of profits.

From the study it was found out that 83.3% of the people in the study area depend on maize as the main source of food. And also the farmers should use 25% of the land utilized for agriculture that is for growing maize and sugar cane has to be allocated to maize growing and 74% has to be allocated to sugarcane growing, while producing 1 hectare of maize and 1 hectare of sugar cane. And through use of the net present value analysis it was found out that sugar cane growing project is a profitable enterprise however it is not advisable to carry it out as a single project because the out comes can not cater for all requirements for the house hold.

In conclusion in order to solve the problem of food security in the area the small scale sugarcane out grower farmers should produce 1 hectare of maize and 1 hectare for maize in order to maximize profits that can enable them to avail their families with enough food for a period of five years in the sub county of Busedde in the vicinity of Kakira sugar estate.

Key words; Optimum crop enterprise combination, linear programming, food security, Sugarcane based farming system, small scale sugar cane farmers.

CHAPTER ONE: INTRODUCTION

1.1. Background.

Africa socio economic development is mainly agrarian and about 70 percent of the labor force and 80 percent of its poor people are directly or indirectly engaged in agriculture, live in rural area and depend on agriculture for livelihood (New partnership for African development- NEPAD, 2004).

According to the state of environmental report (2010), agricultural sector in Uganda is composed of crop and animal production, forestry and fisheries and the associated trade and processing industries. Agriculture continues to dominate the Ugandan economy albeit at a continually a declining level. Agricultural production contributed approximately 15.1 of the total GDP in 2009 down from 15.7 percent of GDP in 2007/2008. At current market prices, agriculture contributed 22.5 percent of GDP in 2010 compared to 23.7 percent in 2008/09 and 21.2 percent in 2007/08. The sectors share of exports and employment however remained at 90 and 80 percent respectively in 2009. The sector also constitute about 40 percent of manufacturing sector through food processing. The sector supports 24.6 million people of the estimated total Ugandan population of 30.7 million people. In addition agriculture is important in stimulating economic growth through the supply of raw materials to agro industries, supporting the development of food security system, income enhancement and employment. (Kitutu et al 2010)

Agriculture is the most important sector of the economy, employing over 80% of the work force (Uganda economy profile, 2012). Over 70% of the population of Uganda is engaged in agriculture, most of the farmers cultivate <5.0 Ha of land (Misango 2008).

The agricultural system in the Busoga region is majorly occupied by the sugar cane farming system which is practiced in most of the areas of Jinja district and Mayuge district. A good % of the farmers in South Busoga region do grow sugarcane while others are picking up (Misango, 2008).

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