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Pursuing Excellence

**CONSTRAINTS TO THE UTILIZATION OF ANIMAL TRACTION TECHNOLOGY AS AN
ALTERNATIVE FARM POWER IN KARITA SUBCOUNTY, AMUDAT DISTRICT**



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SCIENCES IN PARTIAL FULFILLMENT OF REQUIREMENTS FOR AWARD OF DEGREE
OF BACHELOR OF ANIMAL PRODUCTION AND MANAGEMENT OF BUSITEMA
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JUNE, 2014

DECLARATION

I, **EWAJU EMMANUEL**, declare that this dissertation is my own effort and that it has not been submitted to any other university of higher learning institution.

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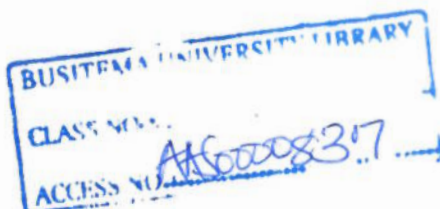
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DEDICATION

This dissertation is dedicated to my entire family and friends for their unending contribution and committed efforts that they have put in for me to reach this level of education progress. All my success goes to you.

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LISTS OF ABBREVIATIONS

DAP:	Draught Animal power
FAO:	Food and Agriculture Organization
GIEWS:	Global information and Early Warning Systems.
AT:	Animal Traction
SAARI:	Serere Agricultural and Animal Production Research Institute
SAIMMCO:	Soroti Agricultural Implements and Machinery Manufacturing Company
OPM:	Office of the Prime Minister
NGO:	Non Governmental Organization
UNAT:	Uganda Network for Animal Traction
ATNESA:	Animal Traction Network for East and Southern Africa
UBOS:	Uganda Bureau of Statistics
CBPP:	Contagious Bovine Pleuropneumonia
LSD:	Lumpy Skin Disease
FMD:	Foot and Mouth Disease
IGAD:	Intergovernmental Policy on Development.

ABSTRACT

This was a cross sectional survey carried out in Karita sub county, Amudat district. The main aim of the study was to determine the constraints to the utilization of animal traction technology as an alternative farm power. The specific objectives of the study were to identify the type of animals reared for animal traction, to determine the factors and practices limiting the utilization of animal traction, to find out the implements used for animal traction and to determine the contribution of animal traction technology to farmers in Karita sub-county, Amudat district. Data was collected from 99 randomly selected respondents using questionnaire with both open and closed questions. The results were presented using tables, graphs and pie charts. The study revealed that animals used for traction technology were majorly cattle (88%) followed by donkeys (10%) and camels (2%). Cattle were mostly used for tillage operations, the donkeys and camel for transportation of produce. The implements used in the study area were majorly ox ploughs (75%), carts (24%) and harrowers (1%). However constraints to the animal traction technology in the area were: Diseases namely; tick born disease (40%), contagious pleuropneumonia (19%), poor feeding as animals depended only on natural pastures, poor extension services with 30% of the farmers accessing extension services. For effective utilization of animal traction technology as an alternative farm power, there's need to improve extension services so as to create awareness about animal traction utilization. There's also need to improve on animal husbandry requirements, harnessing techniques, enhance animal traction technologies by introduction of implements such as planters, weeders and harvesters so as to increase the farm productivity hence household income and food security.

CHAPTER ONE: INTRODUCTION

1.1 Background

Animal power refers to the implements and machines utilizing animal muscles as the main power source with a view to reducing the drudgery of farm work. This therefore means the employment of domestic animals for village tillage or transport is known as animal traction. Animal traction is generally understood to also include transport as well as the 'pulling' work of an animal. (Chisango, 2008; Starkey, 1997)

Throughout the world, animals still work for man and they contribute to more than half the energy the third world uses for agriculture and provide some developing countries, especially the semi-arid and highlands zones, with as much as 90% of their agricultural power (FAO, 1990)

In Uganda, the use of work animals was introduced in 1990 in then Bukedi (Tororo) district, (Akou, 1972). Soon after an animal traction farmer training and demonstration school was opened in Kumi. This was later in 1920, transferred to Serere Agricultural and Animal Production Research Institute (SAARI) as a centre for research, testing, demonstration and training of farmers in ox-cultivation through the extension efforts of the ministry of agriculture. The use of work animals rapidly spread throughout the east and the northern parts of the country. These are areas where ecological and cultural conditions favored its development, the technology brought about increase in cropped acreage especially for cotton and traditional cereals crops.

The use of traction technology developed in areas of short grass, light bush, and with large herds of cattle and not in areas that were infested with tsetse flies. In 970s ,70-90% of the households in the two regions were either using or indirectly benefiting from animal traction elsewhere in the country, the technology was widely demonstrated and utilization was increasing due to the higher costs associated with hired labour (Adu *et al*, 2000).

For over seventy years, animal traction and animal powered transport technology depended solely on imported technologies. Besides being expensive, animal traction equipment was heavy, sophisticated and difficult to operate using local work animals they also lacked reliable sources of spare parts. In 1967, local manufacture of animal drawn farm implements was initiated, this initiation has since grown

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