# BUSITEMA UNIVERSITY-NAMASAGALI CAMPUS FACULTY OF NATURAL RESOURCES AND ENVIRONMENTAL SCIENCES DEPARTMENT OF NATURAL RESOURCE ECONOMICS.

## ASSESSMENT OF CURRENT MEDICAL SOLID WASTE MANAGEMENT PRACTICES WITHIN MEDICAL FACILITIES:

A CASE OF MASINDI DISTRICT.

BY

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A RESEARCH REPORT SUBMITTED TO THE FACULTY OF NATURAL RESOURCES AND ENVIRONMENTAL SCIENCES IN PARTIAL FULLFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF A DEGREE OF BACHELOR OF SCIENCE IN NATURAL RESOURCE ECONOMICS.

**BUSITEMA UNIVERSITY.** 

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## **DECLARATION.**

I **Agaba Julius** hereby declare that unless otherwise references quoted, the work embodied in this research report is entirely as a result of my own effort and has never been submitted to any institution of higher learning for the award of Bachelor's degree.

I take responsibility for any errors that may arise out any omissions or otherwise.

Signature;	Date;
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## APPROVAL.

## **DEDICATION.**

I dedic	ate this wo	ork to my	loving	dad Mr.	Byaruhanga	John and	l mum	Mrs. Ny	yandera	Alice.
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## LIST OF ACRONYMS.

HIV Human Immune Virus

MSW Medical Solid Waste

MSWM Medical Solid Waste Management

NEMA N ational Environmental Management Authority

PHC Primary Health Care

PPE Personal Protective Equipment

WHO World Health Organization

#### **ABSTRACT**

The increase in health facilities in Uganda has resulted in an increase in Medical Solid Waste (MSW) which pose a serious threat to the environment and the general public. This study was conducted in Budongo Sub-County. The general objective of the study was to assess current medical solid waste management practices and specific objectives were to find out different types of MSW generated in different health facilities, to find out current practices used to handle medical solid wastes, to find out the challenges associated while handling named types of MSW and to find out practices put in place to ensure effective handling of named types of MSW within existing MSWM hierarchy.

A total of 50 questionnaires were administered randomly to different health care workers. Individual interviews were also carried out with different health workers, direct observation at disposal and treatment sites. Data collected was entered, analyzed using Microsoft Excel software and presented by use of pie charts and bar graphs.

Medical Solid Wastes generated were put into four categories non-infectious wastes, infectious wastes, highly infectious wastes and sharp objects. Medical solid wastes generated were stored in bins and boxes.

Incineration was the common practice used to dispose off the wastes and sorting was also carried out according to color coding.

Continued Medical Education (CME) should be carried out to increase knowledge and skills among healthcare workers on proper management of medical solid wastes they generate, need for Ministry of Health to provide clearly labelled storage containers and need to invest in more finances in management of medical solid wastes.

## CHAPTER ONE.

#### 1.0. INTRODUCTION.

## 1.1. Background

#### **1.1.1.** What is medical solid waste?

Medical solid waste is defined as any solid waste generated in the diagnosis, treatment, or immunization of human beings or animals. They cause serious illness or pose a potential hazard to human health or the environment when improperly sterilized, stored, transported, disposed of or otherwise managed (United States-Environmental Policy Agency (USEPA) 1986).

Medical solid wastes include all infectious waste, hazardous waste that are generated from all types of healthcare institutions, including hospitals, clinics, doctor (dental and veterinary) offices, and medical research laboratories.

#### 1.1.2. Environmental effects of medical solid waste.

Medical solid waste has the potential to cause diseases and is a health risk. It is a by-product of health care that includes sharp and non-sharp objects, blood, body parts, chemicals, expired pharmaceuticals, medical devices and radioactive materials (World Health Organization (WHO) 2002).

Medical solid waste is infectious and it also acts as an agent in the infections' transmission of diseases because it contains microorganisms which can be communicated into body tissues. Transmitted pathogens can cause disease or diverse health impacts to human (US-EPA, 1986). The Medical solid waste is very serious environmental health concern in urban areas in developing countries where population density is high and the health facilities are increasing in number (Windfeld and Brooks, 2015) yet adherence to health safety regulations continues to be questionable. It is becoming the most pressing challenging environment problem because improper management contributes to poor environmental conditions that may threaten health of the people

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