

Developing an Occupational Health and Safety Policy for Chalimbana University

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DECLARATION

I, **Moses Chewe**, declare herewith that this thesis entitled: **Developing an Occupational Health and Safety Policy for Chalimbana University**, has not been submitted for any degree or examination at any other university, and that the sources I have used have been fully acknowledged by complete references. This thesis is submitted as a requirement in fulfilment of the Doctor of Philosophy in Public Management and Governance at North-West University, Potchefstroom Campus, Republic of South Africa.

I understand and accept that the copies that are submitted for examination are the property of the University.

Signature of candidate:

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Signed at Lusaka this 24th day of November 2023

DEDICATION

To Maria Chuma Mukulo (MHSRIP) – My Beloved Mother and Eternal Cheerleader

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ABSTRACT

All organisations, regardless of their size, nature, and type have hazards that pose risks to the health and safety of their workers and other individuals who come in contact with them. If not mitigated, these hazards can result in injury, illness, and death. As such, many governments require organisations operating in their boundaries to put in place measures for managing health and safety. Developing an OHS policy is universally considered the foundation of any efforts to managing occupational health and safety at the organisational level.

There is no standard format for developing and designing an enterprise level occupational health and safety policy. As such, each organisation has to develop its own appropriate policy that responds to its unique characteristics such as size, nature of hazards, and type of work undertaken. However, an extensive review of literature revealed that an enterprise level OHS policy generally has the following three sections: health and safety policy statement; organisation of health and safety; and arrangements for health and safety. In view of the foregoing, this study sought to develop an occupational health and safety policy for Chalimbana University. This study was guided by the following five theories of public policy: elite theory, institutional theory, rational choice theory, systems theory, and group theory. It was descriptive in nature and employed a qualitative research design. Furthermore, the study used the case study method. A total of 31 informants were sampled purposively for purposes of this study. Both primary and secondary data were collected using interviews and published literature, respectively.

The findings of the study revealed that Chalimbana University has a few hazards that have been posing continuous risks to managers, workers, students, infant learners, parents and guardians, visitors, and contractors. In addition, the study revealed that the University did not have any formalised occupational health and safety management mechanisms in place. As such, the study proposed a comprehensive and proactive occupational health and safety policy for Chalimbana University that has three main components as follows: health and safety policy statement; organisation of health and safety; and arrangements for health and safety.

Among others, this study recommends the speedy implementation of Zambia's national occupational health and safety policy, reviewing occupational health and safety laws in the country, restructuring Zambia's occupational health and safety institutions, and establishing a national occupational health and safety data base centre for the country.

Key words: Occupational health and safety, public policy, hazard, risk, accident, proactive and comprehensive policy, initial status review, policy statement, organisation of health and safety, arrangements for health and safety.

LIST OF ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ANSI	American National Standards Institute
BBC	British Broadcasting Corporation
BSI	British Standards Institute
CBU	Copperbelt University
CCOHS	Canadian Centre for Occupational Health and Safety
CDC	Centre for Disease Control
CEC	Copperbelt Energy Corporation
CHAU	Chalimbana University
Covid-19	Coronavirus Disease of 2019
CSOs	Civil Society Organisations
DEG	Digital Era Governance
DMMU	Disaster Management and Mitigation Unit
GDP	Gross Domestic Product
HDI	Human Development Index
HEA	Higher Education Authority
HIV	Human Immunodeficiency Virus
HSE	Health and Safety Executive
IAEA	International Atomic Energy Agency
IIOSH	Israel Institute for Occupational Safety and Hygiene
ILC	International Labour Conference
ILO	International Labour Organisation

IMF	International Monetary Fund
IOHA	International Occupational Health Association
IOHSOL	IOHSolutions
IOSH	Institute of Occupational Safety and Health
ISO	International Organisation for Standardisation
MMD	Movement for Multiparty Democracy
MSD	Mine Safety Department
NPG	New Public Governance
NPM	New Public Management
NPR	National Performance Review
NWS	Neo-Weberian State
NWU	North-West University
OECD	Organisation for Economic Co-operation and Development
OHS	Occupational Health and Safety
OHSI	Occupational Health and Safety Institute
OHSM	Occupational Health and Safety Management
OHSMS	Occupational Health and Safety Management System
OSHSD	Occupational Safety and Health Services Department
OSU	Oregon State University
PF	Patriotic Front
Post-NPM	Post-New Public Management
PPE	Personal Protective Equipment
PPP	Public-Private Partnership

PUMA	Public Management Programme
RoSPA	Royal Society for the Prevention of Accidents
RPA	Radiation Protection Authority
SIGMA	Support for Improvement in Governance and Management
TCLC	Tripartite Consultative Labour Council
UK	United Kingdom
UN	United Nations
UNIP	United Nation Independence Party
UNZA	University of Zambia
UPND	United Party for National Development
USA	United States of America
WCFCB	Worker's Compensation Fund Control Board
WHO	World Health Organisation
WHS	Work Health and Safety
WW1	World War One
WW2	World War Two
ZABS	Zambia Bureau of Standards
ZCSA	Zambia Compulsory Standards Agency
ZCTU	Zambia Congress for Trade Unions
ZEMA	Zambia Environmental Management Agency
ZFE	Zambia Federation of Employers
ZNPHI	Zambia National Public Health Institute

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CHAPTER 1 INTRODUCTION

1.1 ORIENTATION AND BACKGROUND

The purpose of this inaugural chapter is to lay the foundation for this study whose aim is to develop an occupational health and safety (OHS) policy for Chalimbana University (CHAU). OHS has been chosen because it focuses on how to safeguard and promote the well-being of workers who are critical to the sustainability of all organisations (Armstrong, 2006:829; Hughes & Ferrett, 2016:2). There are different ways in which the term is expressed including OHS, occupational safety and health (OSH), and work health and safety (WHS). This study adopted the term OHS as this is how it is referred to in Zambia's principal OHS legislation, the Occupational Health and Safety Act of 2010.

Although universities are generally considered to be safer workplaces, they need to have OHS policies in place as they are susceptible to numerous occupational hazards such as chronic stress, sexual and physical harassment, toxic chemicals and gases, radiation, infectious biological agents, fires, electrical shocks, theft, and shootings (Venables & Allender, 2006:159; History. 2007; Marsh *et al.*, 2009:314; Hossain *et al.*, 2014:371; Coldwell *et al.*, 2015:917; Asquith *et al.*, 2019:322; Ayi & Hon, 2018:6; Broadcasting Corporation [BBC], 2019; Education Development Centre, 2019 Adom *et al.*, 2020:1055; Macupe, 2020; Melnick & Darling-Hammond, 2020:1; Mishra *et al.*, 2020; History, 2021; Molstad *et al.*, 2023:218). Furthermore, the death of numerous university staff and students due to coronavirus disease of 2019 (COVID-19) has demonstrated the need for universities to proactively establish and implement OHS policies (Macupe, 2020; Edmunds *et al.*, 2021:2287; Du Plessis *et al.*, 2022:6). The foregoing echoes the argument by Ibrahim *et al.* (2012:732) that even if occupational accidents and diseases are a rare occurrence in universities, there is still a need to put in place mechanisms for managing health and safety to prevent the situation from degenerating. Thus, CHAU has been chosen as the focus of this study for three main reasons. The first reason is that the University does not have an OHS policy to provide guidelines on how to promote health and safety in its working environment. This has some implications on OHS at the University. One of them is that workers, students, infant learners, contractors, and visitors are unprotected from occupational hazards prevailing at the University. The second reason is that the University is not compliant to national OHS laws such as the Occupational Health and Safety Act of 2010, which requires all employers to establish OHS management measures (Republic of Zambia, 2010). The third reason is that the absence of an OHS policy means that the University falls short of international OHS standards such as the International Labour Organisation's (ILO) *Guidelines on Occupational Safety and Health Management Systems (ILO-OSH 2001)* and the International Organisation for Standardisation's (ISO) *Occupational Health and Safety Management Systems-Requirements with Guidance for*

Use (ISO 45001:2018), which recommend that any organisation, regardless of its size, type, and nature of activities, must develop an OHS policy in order to effectively manage health and safety (ILO, 2009a:6; ISO, 2018:9).

To achieve the aim of this study, this chapter has been divided into the following sections: introduction, background, statement of the problem, research objectives, research questions, aim of the study, central theoretical statements, research methodology, significance of the study, dissemination of the research findings, chapter outline, and chapter summary.

1.2 PROBLEM STATEMENT

Like other universities in the world, CHAU is susceptible to occupational hazards and risks. For example, in 2017, a hostel block at the University was gutted as authorities failed to quench the fire due to inadequate water at the University (Chongo, 2017). Similarly, in 2018, CHAU was abruptly closed by the Minister of Higher Education after it was discovered that the sanitation levels at the University were deplorable (Namaiko, 2018). The University was only reopened months later after the Minister compelled the management of CHAU to improve the sanitation levels. From the foregoing, it can be deduced that CHAU is not adequately prepared to manage occupational hazards and risks. This can largely be attributed to the lack of an OHS policy at the University, among other things. As stated by the Republic of Zambia (2023:5), a number of organisations in the country have struggled to make their workplaces safe because they do not have OHS policies. The problem of this study, thus, is that CHAU does not have an OHS policy to provide guidelines on how the University can alleviate occupational accidents and diseases.

In the absence of an OHS policy, the University's population such as workers, students, infant learners, contractors, and visitors is vulnerable to occupational accidents and diseases. This is due to two main reasons. Firstly, the absence of an OHS policy means that the University has no mechanism for identifying possible risks and hazards. Secondly, it means that CHAU does not have university-wide guidelines that everyone in the University can use to prevent occupational accidents and diseases. As such, the said two reasons imply that the University is constantly unprepared to respond to occupational risks and hazards.

The foregoing confirms the findings of a 2015 audit by the Zambian Government that organisations without an OHS policy had deplorable OHS standards such as dysfunctional and expired firefighting equipment; lack of fire alarms; lack of and poorly marked fire exits; absence of PPE; and deplorable toilets and showers (Republic of Zambia, 2015a:47). In addition to the risks of injury and illness that are posed by the lack of an OHS policy, CHAU is in contravention of the Occupational Health and Safety Act of 2010 and Employment Code Act of 2019, which require employers to establish OHS management mechanisms.

International best practice state that developing an OHS policy is the foundation of any OHS management efforts as it provides guidelines on how the organisation will eliminate and control hazards (ILO, 2009a:6; ISO, 2018:9). Furthermore, international OHS standards posit that an OHS policy enables an organisation to meet its legal and other obligations, while creating a positive OHS culture and improving OHS performance (ILO, 2009a:6; ISO, 2018:9). Best practices in OHS require every organisation to develop its own OHS policy that is appropriate for its size, type, and nature (ILO, 2009a:6; Hughes & Ferrett, 2016:52; ISO, 2018:9). No study focusing on the development of an OHS policy for CHAU was found. Thus, this study asks the question, *what might be the best OHS policy for CHAU that would ultimately promote the health and safety of workers?* Therefore, this study reviews various factors that would help determine the best OHS policy for CHAU.

1.3 BACKGROUND

According to the International Occupational Health Association (IOHA) (cited by ILO, 2003:7), OHS is *“the science of the anticipation, recognition, evaluation, and control of hazards arising in or from the workplace, and which could impair the health and well-being of workers, also taking into account the possible impact on the surrounding communities and the general environment.”* All organisations have hazards that are unique to their size, type, and nature of activities (Hughes & Ferrett, 2016:2; ILO, 2018:1). As such, every employer has a duty of care to their workers (Hughes & Ferrett, 2016:4-5; ISO, 2018:9; Entirely Safe, 2020). There are a number of occupational hazards that threaten the health and safety of workers in organisations globally. These can be categorised as follows: chemical hazards; physical hazards; biological hazards; psychosocial hazards; and ergonomical hazards (Donagi *et al.*, 2011; McKinnon, 2020:143). Effective management of the said hazards helps to prevent death of workers, loss of organisational revenue, and damage to organisational property, among others (Kendall, 2006:3; ILO, 2009b:4; Hughes & Ferrett, 2016:4,7; ISO, 2018:9; Reese, 2017:39). Unfortunately, most organisations globally are struggling to alleviate occupational accidents and diseases (Hämäläinen *et al.*, 2017:11). For example, Hämäläinen *et al.* (2017:11) postulate that approximately 2.78 million people die every year from occupational accidents and diseases. Similarly, the World Health Organisation (WHO) (2021: viii) states that an estimated 1.88 million people died from work-related accidents and diseases in 2016.

Hossain *et al.* (2014:371) postulate that universities globally are among the organisations that have struggled to alleviate occupational hazards due to a number of factors, including but not limited to, absence of OHS policies, poor OHS culture, and lack of personal protective equipment (PPE), among others (Chongo, 2017; Siame, 2017; Eyi & Eyi, 2020:1; Macupe, 2020; Quaidoo *et al.*, 2021:45). For example, in Zambia, failure to quench a fire that gutted a hostel block at CHAU on 16th April 2017 was attributed to poor OHS culture and the lack of proactive OHS measures

(Chongo, 2017; Siame, 2017). In South Africa, poor OHS culture and inadequate PPEs resulted in the death of at least 20 members of staff from universities around the country as of 23rd June 2020 (Macupe, 2020). In Turkey, it was found that nursing students lacked PPEs and were exposed to biological hazards such as blood and other body fluids (Eyi & Eyi, 2020:1). In the United States of America (USA), negligence in dealing with mental health challenges resulted in 3 students taking their own lives at Rowan University in 2019 (Education Development Centre, 2019; Sturla & Azad, 2019). The foregoing examples demonstrate that universities globally have OHS challenges that need to be addressed by putting in place proactive measures such as OHS policies.

The foregoing notwithstanding, Ibrahim *et al.* (2012:732) and Hossain *et al.* (2014:371) observed that research on OHS management in universities is not extensive. One reason for this is that universities are not very hazardous like mines, hospitals, and construction sites, among others (Ibrahim *et al.*, 2012:732; British Standards Institute [BSI], 2021). Be that as it may, there is urgent need for extensive research on OHS management in universities to generate information on how they can alleviate the above-mentioned hazards, which have been reported at universities in Africa and Europe, among others. For example, in Sweden, Agardh *et al.* (2022:12) found that sexual harassment was common at Lund University among both staff and students. In Africa, chemical hazards were found to be rampant at universities in Ghana, Zimbabwe, Kenya, and Tanzania (Engida, 2011:46). Ibrahim *et al.* (2012:732) argue that even if universities seldomly experience occupational accidents and diseases, they must still put in place proactive measures for managing health and safety in order to prevent the situation from getting worse.

The foregoing strengthens the argument that universities globally must implement OHS policies. One major reason for universities to put in place OHS policies is to honour their duty of care (RoSPA, 2012:5; BSI, 2021). In many countries, including the United Kingdom (UK) and Zambia, all employers, universities included, are legally mandated to put in place OHS measures to protect workers from workplace hazards (Health and Safety at Work etc Act of 1974; Republic of Zambia, 2010). In a university, measures such as an OHS policy could help to protect workers and students from fatal and non-fatal accidents and diseases on and off campus (Quaidoo *et al.*, 2021:45; University of Cambridge, 2022:10). Additionally, an OHS policy could enable a university to create a conducive environment for teaching and learning by installing infrastructure such as air-conditioning, that promote a positive health and safety culture among staff and students (RoSPA, 2012:13; Hossain *et al.*, 2014:372). Furthermore, an OHS policy could help a university to build a positive public image that can attract prospective students (Tuite, 2016). Universities must also manage occupational accidents to prevent unnecessary costs that may arise from insurance claims and reconstruction of damaged property (Agyekum *et al.*, 2016:58). For

example, in Zambia, it was reported that the repair of a gutted hostel block at CHAU would cost approximately K2 million (US \$111,830) (Siame, 2017).

Globally, developing and implementing a comprehensive and proactive enterprise level OHS policy is regarded as the cornerstone of any organisation's efforts to protect workers from occupational hazards. For instance, international occupational health and safety management systems (OHSMSs) such as the *ILO-OSH 2001* and *ISO 45001:2018* recommend that, before an organisation can establish any efforts to manage OHS, it must begin with the development of an OHS policy (ILO, 2009a:6; ISO, 2018:9). This is because an OHS policy enables the organisation to set out guidelines on how it is going to manage work-related accidents and diseases (ILO, 2009a:5-6; Hughes & Ferrett, 2016:51-52; American National Standards Institute [ANSI], 2017:5-6; ISO, 2018:9). Other than the foregoing, there are other reasons why an organisation should develop an OHS policy. One reason is that it might be a legal requirement. For example, all organisations with five or more workers in the UK are legally required to develop a written OHS policy (Hughes & Ferrett, 2016:50-51; ISO, 2018:1). Another reason is that it demonstrates management's commitment to managing occupational hazards and risks. A written OHS policy serves as an embodiment of management's promise to prioritise the health and safety of workers (Cockburn, 2012:18; Reese, 2017:37; Perez, 2019:49; McKinnon, 2020:73-74). In addition to the foregoing reasons, developing an OHS policy can enable the organisation to save finances by reducing expenses related to compensation and legal fines, among others (Truce, 2019; Berns, 2022; Merin, 2022). The other reason is that developing an OHS policy can enhance an organisation's reputation. An organisation that has an OHS policy is likely to be seen in a positive light by the public, partners, and potential clients. In turn, this may enhance the organisation's reputation and public image (Berns, 2022; Merin, 2022).

In view of the foregoing, it is unsurprising that organisations globally, including universities, have developed OHS policies to guide them on how to effectively protect workers and other individuals from occupational hazards. For instance, universities such as Lupane State University (2017) in Zimbabwe, North-West University (NWU) (2019) in South Africa, the Oregon State University (OSU) (2021) in the USA, and the University of Manchester (2021) in England have developed OHS policies.

Given that organisations differ in terms of size, type, and nature, it is important for each one of them to develop an OHS policy that is specific to its needs. As such, the development of an OHS policy must be spearheaded by management and workers who understand their work environment better (Hughes & Ferrett, 2016:52; ISO, 2018:9). The following factors are key to the development of an effective OHS policy: leadership, commitment, and support from top management; collaboration between employers and employees; effective communication; and regular review (ILO, 2009a:6; Cockburn, 2012:18; Hughes & Ferrett, 2016:52; Reese, 2017:37;

ISO, 2018:9-10; McKinnon, 2020:55). Furthermore, an OHS policy must be written in a language that everyone in the organisation understands (Alli, 2008:46; ILO, 2009a:6; ISO, 2018:9-10). There is no standard format for writing an OHS policy, but a review of the literature shows that it generally tends to have three main components and these are: OHS policy statement, organisation of OHS, and arrangements for OHS (Taylor *et al.*, 2004:65; Stranks, 2006:197; Hughes & Hughes, 2008:47; Hughes & Ferrett, 2016:51; Reese, 2016:425; McKinnon, 2020:53; Canadian Centre for Occupational Health & Safety [CCOHS], 2021; FFVA Mutual, 2022; Ubongeh, 2022).

The current practice of developing a proactive and comprehensive policy for managing health and safety at the enterprise level can be traced to the second half of the 20th century in the UK (ILO, 2011a:4; ILO, 2019:20). In 1970, the UK government constituted a committee chaired by Lord Robens to review the worsening state of OHS across all sectors of the country (Robens Report, 2006:v). The committee's report, dubbed the Robens report, which was produced in 1972, revealed a number of shortcomings in existing legislation. These included, but not limited to, lack of proactiveness, fragmentation, and overlapping of functions (Robens Report, 2006:31,36,40). Accordingly, the UK government passed the Health and Safety at Work etc. Act of 1974. Among other things, the Act required all employers to develop a written proactive and comprehensive OHS policy. According to the ILO (2011:4), the revelations of the Robens report changed the approach to OHS management from reactive and industry specific regulations to proactive and comprehensive ones. The ILO played a crucial role in spreading this new approach globally by developing OSH standards such as the *Occupational Safety and Health Convention, 1981, (No. 155)* and its accompanying *Recommendation (No. 164)*, which provide guidelines on the development of national and enterprise level OHS policies (ILO, 2011a:4).

In Zambia, OHS has been a challenge since the pre-independence era when the country was known as Northern Rhodesia under the British colonial government (Cunningham, 1985:213-214; Kalusa, 1993:22). During this era, the country's mainstay was the mining sector in which most Africans worked as labourers (Kalusa, 1993:22; Mufinda, 2015:75). This period was characterised by poor working conditions such as long working hours and lack of PPE (Kalusa, 1993:22; Mufinda, 2015:75). Kalusa (1993:22) argues that the colonial government largely neglected the protection of African workers from occupational accidents and diseases and was more interested in exploiting them for cheap labour. Consequently, several African workers were victims of occupational accidents and diseases. For example, in 1929, over 2,000 workers were affected by silicosis and lead poisoning, while 26 died at Broken Hill mine in Kabwe (Mufinda, 2015:75). In 1964, the year that Zambia attained independence, the country ratified some ILO conventions including "*Convention No. 12 (Workmen's Compensation in agriculture, 1921 [Revised by convention No. 121]; Convention No. 17 (Workmen's Compensation for accidents, 1925 [Revised*

by convention No. 121]” (Siziya *et al.*, 2010:1-2). According to Siziya *et al.* (2010:1), this was aimed at providing social protection to workers in the country.

Post-independence, the Zambian Government continued its efforts of improving the OHS situation by enacting legislation such as the Factories Act of 1966, which was aimed at safeguarding the health and safety of factory workers. However, in the late 1960s and early 1970s, the already meagre OHS standards dwindled due to, among other things, the nationalisation of the mines, which introduced new OHS challenges such as lack of experience and expertise in OHS management (Cunningham, 1985:213-215; Kaunga, 1993: 374). On 25th September 1970, there was an accident at the Mufulira mine that claimed the lives of 89 miners (Cunningham, 1985:213; Tembo, 2019:109). Tembo (2019:109) argues that the Mufulira mine accident “*also led to a cut, by as much as 50%, of the nation’s copper production, its main foreign exchange earner.*” However, according to Cunningham (1985:213), the Mufulira mine accident was not attributed to the nationalisation of the mines because the poor OHS practices that caused the accident dated back to the pre-independence era.

In a continued bid to improve OHS in the country, the Zambian Government made a number of legal and administrative efforts. The main legal efforts included the enactment of the following Acts:

- Explosives Act of 1974: To regulate the manufacture, use, possession, storage, importation, exportation, transportation, and destruction of explosives (Republic of Zambia, 2012a:5; Republic of Zambia, 2015a:5);
- Workers' Compensation Act of 1999: To make provision for the establishment and administration of a Fund to compensate workers who get injured and contract diseases at work (Republic of Zambia, 2012a:4; Republic of Zambia, 2015a:5);
- Ionising Radiation Protection Act of 2005: For workers exposed to ionising radiation, which provides for the protection of the public and workers from dangers arising from the use of devices or materials capable of producing ionising radiation (Republic of Zambia, 2012a:4; Republic of Zambia, 2015a:5);
- Mines and Mineral Development Act of 2008: To provide guidelines for protecting workers in the mining sector from occupational accidents and diseases (Republic of Zambia, 2015a:5); and
- Occupational Health and Safety Act of 2010: Which requires employers in the country to put in place measures for managing occupational hazards and risks (Republic of Zambia, 2012a:xi; Republic of Zambia, 2015a:5).

Additionally, in 2013, the Zambian Government ratified two key ILO conventions on OHS. These are the *Occupational Safety and Health Convention No. 155* and the *Promotional Framework for*

Occupational Safety and Health Convention No. 187, which provide for the development of a national OHS policy. Subsequently, Zambia launched its first-ever national OHS policy in 2023 (Republic of Zambia, 2023:ii).

Administratively, the government has put in place institutions to help manage and coordinate OHS in the country. One of the major institutions is the Occupational Health and Safety Institute (OHSI), which was established by the Occupational Health and Safety Act of 2010 (Republic of Zambia, 2012a:25). Among others, the functions of the institute include to: *“investigate and detect occupational diseases and injuries at workplaces”* (Occupational Health and Safety Act of 2010:527). Other institutions put in place are the Mines and Safety Department (MSD), Occupational Safety and Health Services Department (OSHSD), and Workers’ Compensation Fund Control Board (Republic of Zambia, 2012a:31; Republic of Zambia, 2023:3).

Despite all the legal and administrative efforts that the Zambian Government has put in place to manage OHS in the country, many organisations in the country are not compliant with the law. For example, a number of public and private institutions in Zambia have not put in place guidelines for managing OHS on a daily basis as required by the law (Republic of Zambia, 2023:4). Due to the said poor compliance, a number of workplaces in the country are unsafe (Republic of Zambia, 2023:4). Consequently, the number of work-related accidents have been on the rise. For example, the number of reported occupational accidents between 2018 and 2019 increased from 1,000 to 1,168. Similarly, the number of compensated workers increased from 21 in 2008 to 605 in 2018 (Republic of Zambia, 2023:4).

There are a number of reasons why organisations in Zambia have not been compliant with the law on OHS. Key among them is the lack of OHS policies. In the absence of OHS policies, organisations have found it difficult to establish mechanisms for managing occupational hazards and risks (Republic of Zambia, 2023:5). Another reason is that organisations have not received adequate technical support from key OHS institutions such as the OHSI and OSHSD, among others. This is largely due to the lack of adequate human resources to provide technical support to all organisations in the country (Republic of Zambia, 2023:5).

Universities are among the organisations that have not been compliant with OHS laws in Zambia. For example, CHAU does not have formal OHS guidelines for managing occupational hazards and risks that are prevalent at the University. This is a cause for concern as evidence shows that the education sector in Zambia is susceptible to occupational accidents and diseases. For example, between 2011 and 2014, the education sector recorded a total of 8 and 31 fatal and non-fatal injuries, respectively (Republic of Zambia, 2015a:15-17). Furthermore, there has been several reports of occupational hazards at higher learning institutions in the country (Chongo, 2017; Siame, 2017; Jere, 2021). On 16th April 2017, an inferno gutted a hostel block at CHAU

destroying a myriad of properties after authorities failed to quench it due to lack of water at the University (Chongo, 2017; Siame, 2017). At the University of Zambia (UNZA) Great East Road Campus, there have been numerous reports of theft mainly attributed to unrestricted access to the campus, which possess a danger to staff and students. For example, in 2018, approximately 5 vehicles were stolen from the campus in a space of six weeks (Zambia Reports, 2018). In 2018, the Minister of Higher Education informed the nation that Copperbelt University (CBU), CHAU, Kwame Nkrumah University, Mulungushi University, and UNZA had been closed due to poor sanitation that posed the risk of a cholera outbreak (Namaiko, 2018). In January 2022, a fire at Evelyn Hone College gutted a mattress storeroom (Kaumba, 2022). Additionally, just like in other organisations around the country, COVID-19 exposed the inability of universities to proactively manage occupational hazards (Higher Education Authority [HEA] (2020a:10).

In view of the foregoing, this study argues that CHAU needs to develop an OHS policy in order to be able to proactively and comprehensively manage occupational hazards and risks. In line with the assertion by the Republic of Zambia (2023:5) on the challenges faced by organisations in managing OHS in the absence of an OHS policy, this study posits that the absence of an OHS policy at CHAU makes it difficult for the University to establish measures for alleviating occupational accidents and diseases. Consequently, the University presents constant unmitigated danger to the health and safety of students, workers, infant learners, visitors, and contractors. Given that every organisation should develop an OHS policy appropriate for its size, type, and nature of activities in order to effectively establish measures for alleviating occupational hazards, this study seeks to develop an appropriate OHS policy for CHAU.

1.4 RESEARCH OBJECTIVES

On the basis of the orientation and background and the problem statement, the **primary objective** of this study was to:

- develop an OHS policy for CHAU that would promote the health and safety of workers.

In view of the primary objective stated above, the **secondary objectives** of the study were to:

- review the theoretical underpinnings relevant for the development of public policy.
- review best practices in the design of enterprise level OHS policy.
- identify and describe the legal and institutional framework guiding the management of OHS in Zambia with respect to the development of enterprise level OHS policy.
- establish the current OHS profile for CHAU.
- propose an appropriate policy that would promote OHS management at CHAU.

1.5 RESEARCH QUESTIONS

On the basis of the aforementioned research objectives, the following research questions were formulated for this study:

Primary research question:

- What might be the best OHS policy for CHAU that would promote the health and safety of workers?

Secondary research questions:

- What are the theoretical underpinnings relevant for the development of policy?
- What are the best practices in designing an enterprise level OHS policy?
- What are the legal and institutional framework guiding the management of OHS in organisations operating in Zambia?
- What is the current OHS management profile for CHAU?
- What appropriate policy can be proposed to improve OHS management at CHAU?

1.6 AIM OF THE STUDY

The aim of this study is to develop an OHS policy for CHAU.

1.7 CENTRAL THEORETICAL STATEMENTS

The following central theoretical statements (CTS) can be made in the development of an OHS policy specific to CHAU:

CTS 1: Organisations of every size, type, and nature have occupational hazards and risks (Hughes & Ferrett, 2016:2; ILO, 2018:1). As such, all organisations should develop mechanisms for alleviating occupational accidents and diseases. Internationally, the recommended starting point for any organisation that seeks to manage OHS is the development of an OHS policy (ILO, 2009a:6; ISO, 2018:9). This is because an OHS policy enables an organisation to come up with guidelines for how everyone in the organisation can contribute to alleviating occupational hazards and risks (ILO, 2009a:5-6; Hughes & Ferrett, 2016:51-52; ANSI, 2017:5-6; ISO, 2018:9). Additionally, an OHS policy enables the organisation to manage OHS proactively, rather than reactively (ILO, 2009a:11). Therefore, CHAU should develop an OHS policy.

CTS 2: The first-time development of an OHS policy for any organisation should be preceded by an initial status review (Labour Department, 2002:18). The initial status review should establish the status of OHS management in an organisation. This must be followed with the determination of how workers and other individuals will be protected from occupational hazards and risks (Labour Department, 2002:18; ILO, 2009a:10). Thus, an initial status review for CHAU is necessary to determine how best the University can manage OHS.

CTS 3: The effective development of an OHS policy requires strong commitment from the top management of an organisation. Without top management support, the process of developing an OHS policy is likely to be futile (Cockburn, 2012:18; Reese, 2017:37; Perez, 2019:49; McKinnon, 2020:73-74). Thus, top management at CHAU should be consulted when developing an OHS policy for the University.

CTS 4: When developing an OHS policy, there should be collaboration and consultation among managers, workers, and other stakeholders (ILO, 2009a:6-7; ISO, 2018:10-11). This is to enable other stakeholders, other than managers, to have an input in the development of an OHS policy. Thus, workers, managers, and other stakeholders will be consulted in the process of developing an OHS policy for CHAU.

CTS 5: All organisations are different and unique in their own way. As such, each organisation should develop its own OHS policy that responds to its peculiarities such as nature of hazards, legal requirements, and institutional strengths and weaknesses, among others (Hughes & Ferrett, 2016:2). In view of the foregoing, an OHS policy appropriate to CHAU should be developed.

CTS 6: There is no internationally agreed upon design for an OHS policy. However, most enterprise level OHS policies tend to have three major components namely: policy statement; organisation of health and safety; and arrangements for health and safety (Taylor *et al.*, 2004:65; Stranks, 2006:197; Hughes & Hughes, 2008:47; Hughes & Ferrett, 2016:51; Reese, 2016:425; McKinnon, 2020:53; Canadian Centre for Occupational Health & Safety [CCOHS], 2021). Therefore, the OHS policy for CHAU should have the said three major components.

CTS 7: The design of OHS policies for universities in Africa and other continents can offer imperative lessons to the design of an OHS policy for CHAU.

CTS 8: Policy formulation theories offer useful lessons determining factors that influence the content of public policies.

CTS 9: The formulation of public policies is supported by national legislative and administrative requirements.

1.8 RESEARCH METHODOLOGY

Research methodology is a broad term that refers to how a researcher is going to conduct a research in order to solve an identified research problem (Goundar, 2012:12; Patel & Patel, 2019:1). It has been defined as a “*science of studying how research is done scientifically*” (Goundar, 2012:12). Research methodology focuses on explaining the methods that will be used by a research to conduct research. Essentially, it places emphasis on the utilisation of appropriate methods to ensure that an identified research problem is resolved. Brushan and Alok (2018:1) state that research methodology is the presentation of the various stages involved in the process of conducting a research.

1.8.1 Research philosophy

Generally, a research philosophy portrays the assumptions that ultimately determine how a researcher collects, analyses, and utilises research data (Saunders *et al.*, 2009:107). From the foregoing, it can be deduced that, essentially, a research philosophy forms the foundation of any research undertaking. This is because, when undertaking research, researchers generally employ research methods and strategies that align with their assumptions (Saunders *et al.*, 2009:107). A researcher’s philosophical orientation may emanate from several research philosophies, including but not limited to, interpretivism, positivism, critical realism, and pragmatism (Saunders *et al.*, 2009:108; Kumar, 2011:26; Wahyuni, 2012:70). The research philosophy guiding this research is interpretivism.

Interpretivism is usually appropriate for researches that “*seek subjective interpretations of social phenomena from the perspectives of the subjects involved*” (Bhattacharjee, 2012:38). As such, while it can benefit from quantitative data, it is mostly appropriate for qualitative data (Wahyuni, 2012:71; Junjie & Yingxin, 2022:11). The common interpretive research designs include case studies, phenomenology, and ethnography, among others (Bhattacharjee, 2012:38). Given that interpretivism is mostly suitable for qualitative research, this study adopted the qualitative research approach.

1.8.2 Research approach

The qualitative approach has been chosen over the quantitative approach because it is more flexible and allows researchers to use a variety of data collection methods such as interviews, participant observation, and focus group discussions (Kielmann *et al.*, 2011:8). Unlike, quantitative research methods, qualitative methods enable researchers to collect detailed information on multifaceted topics such as OHS (Kielmann *et al.*, 2011:8-9). Furthermore, a qualitative approach also enables researchers to describe the behaviours, beliefs, opinions and emotions of the participants towards the topic being researched, in this case, OHS (Mach *et al.*,

2005:1). Lastly, qualitative research gives researchers an understanding of their experiences and how these experiences affect their behaviour (Mach *et al.*, 2005:3).

1.8.3 Research design

This study adopted the case study design. The design has proved useful to qualitative research as it conducts an in-depth analysis of a given social unit such as an individual, community, town, and organisation, among others (Kothari, 2004:114; Kumar, 2011:123). In addition to conducting an in-depth analysis of a social unit, the case study design also seeks to understand the history of the social unit as well as its environment (Kothari, 2004:114). On the basis of the foregoing, the study conducted an in-depth investigation of CHAU with the ultimate aim of proposing an appropriate OHS policy for the University. In so doing, the research focused on establishing the prevailing circumstances at the University and then identifying the possible structure and content of an appropriate health and safety policy for CHAU. *“The case study design is based on the assumption that the case being studied is atypical of cases of a certain type and, therefore, a single case can provide insight into the events and situations prevalent in a group from where the case has been drawn”* (Kumar, 2011:123).

The case study design has been used in this thesis due to a number of reasons. First, it enables researchers to gain understanding of a social unit on which little information is known (Kumar, 2011:123). In the absence of an OHS policy at CHAU, there is very little information about how hazards and risks are being managed at the University. Therefore, the case study design enabled the researcher to conduct an in-depth analysis of OHS management at the University. For example, managers, staff, and students were asked about the existing health and safety measures at the Institution.

Second, case studies make it possible for researchers to obtain information about people's personal experiences that influence their actions and decisions (Kothari, 2004:115). In order to propose an appropriate health and safety policy for CHAU, it was imperative to obtain information about the personal experiences of managers, staff, and students at CHAU. For instance, the researcher obtained information about the hazards that individuals such as lecturers and students experienced.

Third, the said research design enables researchers to use more than one method of data collection (Kothari, 2004:115). As such, the researcher was able to collect invaluable data from CHAU using interview guides and review of documents such as notices and reports. Fourth, case studies have proved useful for diagnosing several management problems (Kothari, 2004:116). In view of the foregoing, the researcher was able to establish the challenges of health and safety management at CHAU. The main one being the lack of proactiveness in managing health and safety at the University.

1.8.4 Instrumentation

The study collected two types of data, namely; secondary data and primary data. Secondary data was collected by reviewing relevant literature, while primary data was collected using interviews.

1.8.4.1 Literature review

“Secondary data are those which have already been collected by someone else and which have already been passed through the statistical process” (Kothari, 2004:95). In this research, secondary data was collected from:

- The internet
- Government ministries
- North-West University (NWU) online library
- Journal articles
- Textbooks
- Online newspapers
- Working papers
- Research reports
- Theses and dissertations

Among other things, secondary data was relevant in the review of literature and identification of gaps, which gave impetus to this study.

1.8.4.2 Empirical study

Primary data mainly consists of undocumented data, which can be collected using questionnaires and interviews, among others. It can also consist of signs, letters, and notices (Kothari, 2004:95). In this study, primary data was collected using interviews with managers, staff, and students at CHAU as well as interviews with staff from key institutions such as the Ministry of Education, Ministry of Labour and Social Services, Chongwe Municipal Council, OHSI, and HEA, among others. Primary data was collected in the year 2023 during the months of January and July.

1.8.4.2.1 Semi-structured interviews

Semi-structured interviews were used to collect primary data from all the key informants of the study. In this research, the semi-structured interviews, which were used had open-ended questions, which provided room for follow up questions in an event that clarification was required (Mack *et al.*, 2005:116; Kumar, 2011:138; Bhattacharjee, 2012:78). Semi-structured interviews were preferred for this study because they enabled the researcher to ask similar questions to all key informants. This promoted consistency in the manner that questions were asked. The semi-

structured interviews contained several questions focusing on various aspects necessary for the development of an OHS policy for CHAU.

In keeping with the principles of semi-structured interviews, the interviewer held physical one-on-one interviews with all key informants, with the exception of four who preferred virtual interviews. During the interviews, the researcher asked the key informants neutral questions (Mack *et al.*, 2005:116). Furthermore, the researcher listened attentively to the responses by the key informants as he took notes in his notebook. Most of the key informants were uncomfortable with the researcher recording the interviews with a voice recorder due to political reasons. As such, the researcher opted not to record any interviews. Where necessary, the researcher probed the key informants and asked them follow-up questions for clarity (Mack *et al.*, 2005:116).

The use of semi-structured interviews was very useful to this study as it enabled the researcher to collect in-depth information, which guided the development of an appropriate OHS policy for CHAU.

1.8.5 Population and sampling

In a number of cases, it is practically difficult for researchers to investigate a problem by targeting an entire population due to factors such as time and resources, among others. In such cases, researchers should find systematic means of investigating a problem by collecting data from a feasible and representative set of informants (Acharya *et al.*, 2013:330). Therefore, the starting point should be to identify the population of the research. A population can be defined as all the units of analysis that possess the characteristics that a researcher seeks to investigate (Bhattacharjee, 2012:65; Asiamah *et al.*, 2017:1611; Willie, 2022:521). Thereafter, a researcher should determine the target population of the research. To arrive at the target population, a researcher should refine the overall population by eliminating all units of analysis that have the potential to distort the findings of the study (Asiamah *et al.*, 2017:1612; Willie, 2022:521). As such, a target population is one with units of analysis that possesses specific characteristics that are of particular interest to the researcher. Next, a researcher should determine the accessible population of the study. The accessible population is determined by eliminating all inaccessible units of analysis from the target population. As such, *“the accessible population is composed of members of the target population who are willing to participate and will be available at the time of the study”* (Asiamah *et al.*, 2017:1614). Sampling can then follow after determination of the accessible population. Sampling is the process of selecting a sub-group, known as a sample, from the population you want to study (Kumar, 2011:177). Sampling helps to save time as well as financial and human resources (Kumar, 2011:177).

1.8.5.1 Sample size

In view of the foregoing, the target population of this study was 64. These included key informants from CHAU and those from outside the University as illustrated in Table 1.1 below. The key informants from CHAU included the following: top level management, middle level management, lower level management, staff representatives, students' representatives, a police officer from CHAU police post, and a representative from Control Seven Security (C7S) (a security company subcontracted by CHAU to provide security. Those from outside CHAU included officials from the following organisations: Chongwe Municipal Council, OHSI, the Ministry of Education, the Ministry of Labour and Social Services, and HEA. Ultimately, a sample of 31 key informants was selected for this study as presented in Table 1.1 below. It was considered adequate to provide relevant information for the development of an OHS policy for CHAU, especially after considering the challenges experienced by the researcher during the sampling process.

1.8.5.2 Sampling methods and procedure

To arrive at the sample for this study, the researcher employed the following sampling technique:

1.8.5.2.1 Purposive sampling

Purposive sampling was used to collect primary data for this research. Purposive sampling is a form of non-probability sampling, which selects informants based on their ability and willingness to provide information on the subject area (Etikan *et al.*, 2015). It involves selecting participants or sites that give the researcher the best chance of understanding the research problem (Cresswell, 2014:239). This study relied heavily on purposive sampling because it was very helpful in arriving at key informants who possess information relevant for the development of an OHS policy for CHAU (Kumar, 2011:189).

Table 1-1: Summary of target population and sample size

CATEGORY OF KEY INFORMANTS	TARGET POPULATION	NUMBER INCLUDED IN THE SAMPLE	SAMPLING METHOD
Key informants from CHAU			Purposive sampling
Top level management	15	8	
Middle level management	12	6	
Lower level management	6	4	
Staff representatives	6	3	
Students' representatives	16	3	
CHAU Police Post	3	1	
Security company	1	1	
Key informants outside CHAU			Purposive sampling
Ministry of Labour and Social Services	1	1	
Ministry of Education	1	1	
Higher Education Authority	1	1	
Chongwe Municipal Council	1	1	
Occupational Health and Safety Institute	1	1	
TOTAL	64	31	

Source: Researcher's own illustration

1.8.6 Data analysis

In any research undertaking, researchers must edit the data before it is analysed. Simply put, editing is a process of reviewing the collected data to check for any obvious mistakes (Kumar, 2011:248). In this study, the researcher checked the collected data for irregularities. Once the editing process was complete, the researcher used content analysis to analyse the data. Content analysis involves *“searching for structures and patterns or regularities in the text, and systematically drawing informed inferences based on the available evidence”* (Mwanje, 2001:45). Content analysis was used because it is appropriate for data that is in narrative or text form (Shava, Hleza, Tlou, Shonhiwa & Mathonsi, 2021:554). The foregoing aligns with Hsieh and Shannon (2005:1278) who define content analysis as the *“interpretation of content of the text data through the systematic classification process of coding and identifying themes or patterns.”* Thus, in this study, the researcher analysed the data by first transcribing it. Among other things, the transcription process involved deidentifying the data. This was done by assigning identifiers to the responses of the key informants (Stuckey, 2014:7). The identifiers given to the different groups of informants were as follows:

- There were 8 top level managers, as such, they were assigned identifiers as follows: TM1, TM2, TM3, TM4, TM5, TM6, TM7, TM8
- There were 6 middle level managers, and they were assigned the following identifiers: MM1, MM2, MM3, MM4, MM5, MM6

- The study interview 4 lower level managers and they were assigned the following identifiers: LM1, LM2, LM3, LM4
- Three staff representatives were interviewed, and their identifiers were as follows: ST1, ST2, ST3
- The 3 student representatives that were interviewed were assigned the following identifiers: SR1, SR2, SR3
- The police officer from CHAU police post was identified as ZP1
- The representative from C7S was identified as CC1
- The identifier for the key informant from the Ministry of Labour and Social Services is ML1
- The identifier for the official from the Ministry of Education is ED1
- The informants who was drawn from HEA was identified as HE1
- The identifier for the key informant from Chongwe Municipal Council – Fire Department is FD1
- The researcher allocated the key informant from the OHSI the identifier OH1.

Once the allocation of identifiers was completed, the researcher created categories by placing similar data under the same category. Ultimately, nine categories emerged out of this process as follows:

- Category 1: Understanding of OHS policy
- Category 2: Hazards and accidents prevalent at CHAU
- Category 3: Existing organisation of OHS at CHAU
- Category 4: Existing arrangements for OHS at CHAU
- Category 5: Challenges of OHS management at CHAU
- Category 6: Justification for an OHS policy at CHAU
- Category 7: Preferred OHS policy statement for CHAU
- Category 8: Preferred organisation of OHS at CHAU
- Category 9: Preferred arrangements for OHS at CHAU

This categorisation enabled the study to develop an appropriate, proactive, and comprehensive OHS policy for CHAU.

1.8.7 Limitations and delimitations

The limitations and delimitations of this study were as follows:

1.8.7.1 Limitations

The following are the limitations that the researcher experienced:

- The researcher was unable to sample any Council members, as the University had no Council when the researcher started data collection. Although the University Council was appointed towards the conclusion of data collection, it was difficult to schedule an interview with any of the Council members as they were not yet familiar with the operations at the University.
- Some members of staff at the University were unwilling to be interviewed for fear of becoming political targets. The researcher learned that the University had been characterised by political influence before and after the August 2021 general elections in Zambia. He learned that some employees were almost dismissed on suspicion that they were aligned to a named political party. Therefore, certain members of staff were not comfortable being interviewed.
- A few top managers were unavailable due to their busy schedules. Efforts to schedule interviews at their convenience proved futile. For example, the researcher failed to schedule interviews with three senior managers at CHAU. Consequently, the researcher opted to interview their assistants.
- The researcher could not collect data from certain deans, heads of department, and other officers in the University as they were new in their positions. As such, they were unable to provide credible information on matters relating to health and safety.
- At the time of the research, CHAU was undergoing restructuring. As a result, some units had not yet been established. For example, there was no Counselling Unit at the University. In view of the foregoing, the researcher opted to interview the student Matron of the University. In addition, the University does not have a health centre. They use the Chalimbana Rural Health Centre, which is near the University.

1.8.7.2 Delimitations

The study is restricted to developing an OHS policy for CHAU. Although there is a nexus between OHS and other fields such as environmental health and public health, this study is delimited to developing a policy that purely focuses on managing health and safety at CHAU (see ILO, 2003:2,7; Alli, 2008: vii). Additionally, the study did not review the performance of OHS policies for universities. Instead, it only reviewed the structure and content of OHS policies for universities in Africa and other continents. While the study reviewed OHS policies for universities in other countries, it did not review any OHS policies for any university in Zambia as they were unavailable.

1.8.8 Ethical considerations

The research was guided by the requirements of the North-West University (NWU) Basic and Social Sciences Research Ethics Committee (BaSSREC). Thus, the following ethical responsibilities were adhered to:

- The researcher undertook an online training on research ethics and obtained certification from Macquarie University.
- Prior to collecting data, the researcher applied for ethical clearance to BaSSREC. This involved submitting the following: ethical approval application form, research proposal, permission to collect data from gatekeepers, and ethics training certificate, inter alia. This process ended with BaSSREC approving the study and registering the proposal.
- Written informed consent was sought from all key informants prior to conducting the interviews.
- The researcher explained the aim of the research and its objectives in an attempt to make available as much information as possible to the participants. This enabled the key informants to decide whether or not to participate in the study.
- The participants were informed that their participation is voluntary and that there was no reward attached to it. Furthermore, they were informed that they were free to pull out of the interview whenever they wanted to.
- The researcher notified the key informants that they were free to ask any questions of their choice. Furthermore, they were informed that they were at liberty to abstain from any questions they felt uncomfortable answering.
- The researcher informed the participants that their responses would only be used for purposes of this study. Anonymity was guaranteed by not asking for the names of the participants. Additionally, the researcher ensured confidentiality by maintaining exclusive access to the diary in which the responses of the key informants were written. Also, he maintained exclusive access to the computer used to transcribe the interviews. Exclusivity was guaranteed by saving the transcribed data on a password protected Microsoft Word document. The document was also saved on a password protected application.
- The researcher ensured that interviews were conducted in an environment that made the participants feel comfortable.
- The process of data collection, analysis, and preservation were guided by research integrity and honesty.

1.8.9 Validity and reliability of instruments

According to Bhattacharjee (2012:55), *“reliability and validity, jointly called the psychometric properties of measurement scales, are the yardsticks against which the adequacy and accuracy of our measurement procedures are evaluated in scientific research.”* Generally, reliability refers to the extent to which the process of collecting data is devoid of errors. It is concerned with ensuring that a research instrument is capable of collecting similar data and results when used repeatedly under similar circumstances. Therefore, reliability is concerned with consistency and stability (Kumar, 2011:168; Cresswell, 2014:294-295). In view of the foregoing, the extent to which

a research instrument is reliable is dependent on the degree of its consistency and stability. On the other hand, validity *“often called construct validity, refers to the extent to which a measure adequately represents the underlying construct that it is supposed to measure”* (Bhattacharjee, 2012:58).

Researchers need to ensure reliability and validity in order to enhance the integrity of their research findings. However, in qualitative research, it is challenging for them to do so because of the subjective nature of interviews, among others. Consequently, other measures can be used to improve the quality of findings in qualitative research. These are credibility, dependability, transferability, and confirmability.

Credibility refers to the genuineness of the research findings. It seeks to establish the extent to which the research findings are a true reflection of the data provided by the informants (Anney, 2014:276; Noble & Smith, 2015:3-4). To ensure credibility, the researcher uses expert consensus and triangulation. In relation to the former, the researcher constantly consulted with his study leader throughout the process of collecting data and writing the thesis. Under the latter, the researcher collected data from various sources, which included the following: CHAU staff, student, and management; relevant government ministries, institutions, and departments; and government policies, laws, development plans, and reports (Brink, 1993:37).

Dependability is concerned with consistency and repeatability of research findings. It seeks to establish the extent to which findings remain consistent overtime (Anney, 2014:278). To ensure dependability of findings, the researcher collected data from more than one source. The researcher also reviewed the notes taken down in his diary to correct any obvious errors. Furthermore, the study leader was constantly engaged during the entire research process to ensure that the research objectives were addressed by the data collected (Anney, 2014:278).

Transferability is concerned with the generalisability of qualitative research findings. It seeks to establish the extent to which findings can be applied to other contexts (Noble & Smith, 2015:3). In this study, transferability was ensured by thick description and purposive sampling. Using thick description, the researcher described the process of collecting and analysing the qualitative data. For purposive sampling, the researcher targeted key informants who were vested with information related to the development of an appropriate health and safety policy for CHAU (Anney, 2014:277-278).

Confirmability is concerned with decreasing the subjectivity inherent in qualitative research. It seeks to establish the degree to which research findings can be verified by other researchers. Further, it promotes neutrality in data collection and analysis by reducing the influence of the researcher's own beliefs and opinions on the research findings (Anney, 2014:279). In this study,

confirmability was ensured using triangulation, review of raw data and findings, and taking verbatim notes during interviews.

1.9 SIGNIFICANCE OF THE THESIS

This thesis is very significant in a number of ways. First, it focuses on OHS, an important field that is concerned with ensuring that employees in all workplaces are protected from work-related hazards and risks. Second, the thesis focuses on the education sector, which is generally erroneously considered safe. As such, the revelation of occupational hazards and risks at CHAU strengthens the argument that every workplace has its own peculiar hazards and risks that have to be managed. This is very significant because it contributes to the ever-growing awareness on the need to establish health and safety measures in all organisations regardless of their size, nature, and type. Third, the thesis focuses on one of Zambia's public universities. At the time of conducting this thesis, there was no public university with an established OHS policy in the country. As such, the findings of this thesis will not only be significant to CHAU, but to other public universities as well. Given that this is the first thesis to propose an OHS policy for a university in Zambia, it will serve as a source of valuable literature for researchers who will venture into this research area. Currently, there is no literature focusing specifically on health and safety policies in public universities in Zambia. Fourth, this thesis will provide impetus for future research in health and safety in universities and other workplaces, which are perceived as less hazardous. This is because it identifies the numerous hazards that exist in universities. Not only that, it also discusses the consequences of poor health and safety management in universities. Given that universities are similar to other organisations that may be perceived as less hazardous, researchers will be prompted to conduct research in universities and other related organisations.

1.10 DISSEMINATION OF THE RESEARCH FINDINGS

The findings of this study will be published in a thesis that will be deposited in the NWU library for other researchers and readers to access. To ensure that the research is scrutinised publicly, a public presentation of the research findings will be organised in the researcher's home country. In addition, the findings will also be used to publish peer-reviewed journal articles. Some of the findings will be used to publish newspaper articles.

1.11 CHAPTER OUTLINE

This thesis has seven chapters. The structure and content of each of the chapters are explained below as follows:

Chapter 1: Introduction

This chapter consists of the orientation, background, statement of the problem, research objectives, research questions, CTSs, aim of the study, significance of the study, chapter outline, and chapter summary.

Chapter 2: Theoretical framework and literature review: public policy and occupational health and safety

This chapter addresses the first research objective of the study. It reviews relevant theories and literature of public policy and OHS. It does so to establish the theoretical foundations that provide guidelines on how public policies are developed. It discusses the concept of public policy in order to provide context on what consists public policies. The chapter also discusses the theory of public administration and public policy theories such as elite theory, institutional theory, rational choice theory, and systems theory. Furthermore, the chapter reviews the concept of health and safety and provides it definitions and significance. It also provides an overview of the evolution of health and safety from early human societies to the present-day, among others. The chapter then creates a theoretical framework to guide the development of an OHS policy for CHAU.

Chapter 3: Review of best practices in the design of enterprise level occupational health and safety policy

The third chapter focuses on the second research objective of this study. It reviews relevant literature on health and safety to establish the general structure and composition of an enterprise level health and safety policy. This chapter also reviews actual health and safety policies of universities from countries within and outside the African continent.

Chapter 4: Legal, administrative, and institutional framework for occupational health and safety in Zambia

This chapter focuses on the third research objective. It reviews the laws, policies, and institutions guiding the management of OHS in Zambia. This chapter establishes the legal and administrative obligations that should be considered when developing an OHS policy for CHAU.

Chapter 5: Review of occupational hazards, accidents, and incidents prevalent at Chalimbana University: empirical evidence

This chapter addresses the fourth objective of this study. It conducts part of the initial status review by determining the hazards and accidents prevailing at CHAU. This chapter enabled the study to establish the magnitude of the risks that workers, students, infant learners, visitors, and contractors are exposed to at the University.

Chapter 6: Analysis of the current occupational health and safety management at Chalimbana University: empirical evidence

This chapter also focuses on the fourth objective. It establishes what OHS responsibilities are currently in existence at CHAU. Additionally, it uncovers the mechanisms that CHAU has been using to manage occupational hazards and risks. Furthermore, the chapter reveals the challenges that have been hampering the management of OHS at CHAU.

Chapter 7: Analysis of the required occupational health and safety policy for Chalimbana University: empirical evidence

The chapter focuses on establishing what the informants believe should be the appropriate OHS policy for CHAU. It uncovers the views of the informants on the required policy statement, organisation of OHS, and arrangements for OHS. These views were obtained from top management at CHAU, workers' representatives, students' representatives, heads of department (HODs), unit managers, and officials from relevant ministries, government departments and institutions.

Chapter 8: Proposed occupational health and safety policy for Chalimbana University

This chapter focuses on the fifth objective. It proposes an appropriate OHS policy for CHAU that would ultimately promote the health and safety of workers, students, infant learners, visitors, and contractors. The chapter does the foregoing by collating information from the following: international best practices; legal, administrative, and institutional framework; and views of the informants of this study.

Chapter 9: Recommendations and conclusions

This chapter summarises the thesis. Among others, it identifies the main contribution of the study and provides summaries for all the chapters of the thesis. In addition, it provides a number of recommendations, including options for government action and suggestions for future research. The chapter also identifies gaps that future researchers can seek to fill.

1.12 CHAPTER SUMMARY

This is the introductory chapter of the thesis. It has presented an introduction, statement of problem, research objectives, research questions, aim of the study, central theoretical statements, research methodology, significance of the study, and chapter outline. This chapter is important because it has provided the foundation on which the entire thesis has been developed. For instance, it has provided valid arguments to support the need for universities to establish health and safety policies. It has done so by pointing out hazards and risks, which exist in universities

as well as their effects. In addition, the chapter has provided a review of the origin of health and safety policy and its general structure. Furthermore, it has laid out the research methodology that provides details on how data will be collected and analysed. The next chapter focuses on reviewing relevant theories and literature on public policy and OHS.

CHAPTER 2 THEORETICAL FRAMEWORK AND LITERATURE REVIEW: PUBLIC POLICY AND OCCUPATIONAL HEALTH AND SAFETY

2.1 INTRODUCTION

The previous chapter presented the background, research problem, research objectives and questions, aim of the study, central theoretical statements, research methodology, significance of the study, dissemination of research findings, and chapter outline. This chapter is in line with the first objective of the study which is to *“review the theoretical underpinnings relevant for the development of public policy.”* Therefore, the chapter reviews the theories of public policy in order to understand the various factors that influence the formulation of public policies. This will guide the study to determine how best an occupational health and safety (OHS) policy for a public institution can be developed. Additionally, the chapter reviews literature on OHS including the plan, do, check, act (PDCA) model, which forms the basis for managing health and safety in present-day occupational health and safety management systems (OHSMSs). This chapter is divided into the following sections: introduction, justification for a theoretical framework, public administration theory, understanding the nature of public policy, understanding the nature of OHS, theoretical framework, and chapter summary.

2.2 JUSTIFICATION FOR A THEORETICAL FRAMEWORK

In order to undertake any scientific study, a researcher must develop a theoretical framework. A theoretical framework serves as a guide for how a study will be conducted. In essence, it is a blueprint for any study. Just like one needs a blueprint to build a house, one needs a theoretical framework to conduct research (Grant & Osanloo, 2014:12-13). A theoretical framework is *“a logically developed and connected set of concepts and premises developed from one or more theories that a researcher creates to scaffold a study”* (Varpio, Paradis, Uijtdehaage, & Young, 2020:11). According to Kivunja (2018:4), *“a theoretical framework comprises the theories expressed by experts in the field into which you plan to research, which you draw upon to provide a theoretical coat hanger for your data analysis and interpretation of results.”* Grant and Osanloo (2014:12) argue that *“the theoretical framework is the foundation from which all knowledge is constructed (metaphorically and literally) for a research study. It serves as the structure and support for the rationale of the study, the problem statement, the purpose, the significance, and the research questions.”* According to Adom, Hussein, and Agyem (2018:438), *“the theoretical framework guides and should resonate with every aspect of the research process from the definition of the problem, literature survey, methodology, presentation, and discussion of the findings as well as the conclusions that are drawn.”* A theoretical framework is essentially a

structure of coherently knitted theories that utilise information from other researches to provide relevance to a researcher's study (Kivunja, 2018:46).

From the foregoing, it is important for every researcher to thoroughly and tactfully review relevant theories and develop a theoretical framework that will clearly guide their study. Developing a poor theoretical framework has the potential of generating findings that do not answer the research questions and thereby not addressing the problem of the study (Adom *et al.*, 2018:439).

2.3 PUBLIC ADMINISTRATION THEORY

As has already been stated in the opening chapter, the aim of this study is to develop an OHS policy framework for Chalimbana University (CHAU), a public university in Zambia. This requires an understanding of both public policy and OHS. As such, this study begins with the review of the nature of public policy before reviewing the nature of OHS. In order to understand public policy, it is imperative to begin by understanding the field of public administration. This is because, public administration and public policy cannot be separated. In fact, according to Wilson (1887:198) and Holzer and Schwester (2015:32), public administration involves developing and implementing public policy.

2.3.1 Defining public administration

Public administration is difficult to define because of its two-pronged nature (Waldo, 1955:2; Aderibigbe & Olla, 2014:65). On one hand, public administration is a practice concerned with the implementation of public policy. On the other, Public Administration is an academic discipline concerned with studying the said implementation that prepares civil servants for their work (Aderibigbe & Olla, 2014:65). From the foregoing, this study agrees with Waldo (1955:2) who argues that any single sentence definition of public administration cannot sufficiently enable a reader to understand the concept. This is because it is difficult to sufficiently define public administration both as a practice and an academic discipline in one sentence (Waldo, 1955:2). Therefore, any single sentence definition such as, "public administration is the organisation and management of men and materials to achieve the purposes of government" (Waldo, 1955:2), will have to be accentuated by additional words and phrases to offer sufficient understanding of the concept. The definitional challenges of public administration are enhanced by the difficulty in delineating its scope that is so vast and highly debatable due to its ever-evolving nature (Uchem & Erunke, 2013:2).

Notwithstanding the definitional challenges, authoritative definitions of public administration exist. Rosenbloom (cited by Hughes & Ferrett, 2003:8) defines public administration as "the use of managerial, political, and legal theories and processes to fulfil legislative, executive and judicial governmental mandates for the provision of regulatory and service functions for the society as a

whole or for some segments of it.” Holzer and Schwester (2015:32), also offer an authoritative definition of public administration as “the formation and implementation of public policy; an amalgamation of management-based strategies such as planning, organising, directing, coordinating, and controlling; an integration of behaviourally based practices adopted from fields such as psychology and sociology; a utilisation of all of those strategies and practices within a democratic framework of accountability; the formation and implementation of policy formally controlled by government managers and also incorporating the non-profit and for-profit communities.”

A review of the definitions of public administration provided above shows that public policy is at the centre of the practice and study of public administration. This enhances the impetus for this study to review the theory of public administration.

2.3.2 Linkage between public administration and occupational health and safety

The management of OHS is a key element of public administration. This is because the state is ultimately responsible for ensuring that workers in all workplaces are healthy and safe (ILO, 2009a:3-4). Frieden, 2013:1858-1859). This is mainly done through the establishment of legislation and institutions focusing on managing OHS in a given country. Furthermore, the government is responsible for enforcing OHS legislation to ensure that all employers are compliant (ILO, 2009a:3-4).

2.3.3 Tracing the origins of public administration

Before Public Administration developed into a distinguished discipline that it is today, its ideas and concepts were being used to manage societal affairs in ancient civilisation (Vigoda, 2002:1; Thornhill & Van Dijk, 2010:99). Vigoda (2002:1-2) and Thornhill and Van Dijk (2010:99) argue that ancient empires in Europe, the Middle East, and Asia practiced public administration when creating government structures, distributing food among citizens, collecting taxes, mobilising and organising the military, and selecting suitably qualified workers, among others. The development of Public Administration as a stand-alone discipline is credited to Woodrow Wilson who is widely regarded as the father of Public Administration (Vigoda, 2002:xvii; Vyas-Doorgapersad, 2011:235). His 1887 article “The Study of Administration” is widely regarded as the conception of the field of public administration (Vigoda, 2002: xvii; Vyas-Doorgapersad, 2011:235). In the said essay, Wilson contended that administration was different from politics and should be viewed as a distinct discipline (Wilson, 1887:210-211). He argued that administration “is the most obvious part of government; it is government in action; it is the executive, the operative, the most visible side of government, and is of course as old as government itself” (Wilson, 1887:198).

Although Woodrow Wilson is widely regarded as the father of Public Administration, his contributions were preceded by the writings of European scholars such as Johann Heinrich von Justi and Lorenzo von Stein (Thornhill & Van Dijk, 2010:99; Guerrero-Orozco, 2014:2). As early as the 18th century, Justi had already made significant contributions to the field of Public Administration through his systematisation of cameralism and his definition and delineation of police science (Guerrero-Orozco, 2014:3). In the 19th century, before Wilson wrote his ground-breaking essay, Von Stein contributed to the study of Public Administration through his book titled “The Theory of Administration” in which he advocated for the science of Public Administration which he argued was an integrating science (Mengelberg, 1961:267; Thornhill & Van Dijk, 2010:99; Guerrero-Orozco, 2014:8).

2.3.4 The evolution of public administration

The field of Public Administration has gone through three major paradigms, the traditional Public Administration paradigm, the New Public Management (NPM) paradigm, and the post-New Public Management (post-NPM) paradigm (Osborne, 2010:1; Bryson, Crosby & Bloomberg, 2014:445; Robinson, 2015:4). Each of the three paradigms were aimed at finding the best way to manage the public sector (Vigoda, 2002:15; Vyas-Doorgapersad, 2011:238). The nature of public policy has also been evolving during the said paradigms (Osborne, 2010:1).

2.3.4.1 Traditional public administration paradigm

This paradigm began taking shape in the early 1920s and started to crumble in the 1970s (Białynicki-Birula, 2019:20). The main contributors to the emergence and growth of the traditional Public Administration paradigm include Woodrow Wilson, Max Weber, and Frederick Taylor (Denhardt & Denhardt, 2007:5-6; Białynicki-Birula, 2019:20-21). In his essay, Wilson called for the development of a new science of government, administration, which was viewed as the implementation of government policy (Wilson, 1887:198). Wilson (1887:198) argued that administration should have been conceived at the same time as government as it is the embodiment of government action. This, Wilson (1887:198) contended, makes administration “the most visible side of government.” According to Wilson (1887:210), administration and politics are significantly different as they belong to different spheres. To justify this, he postulated that the questions of administration and those of politics are different, thereby making the skills required in politics different from those required in administration (Wilson, 1887:210).

The need to develop administration as a distinct discipline inspired the writings of classical scholars such as Max Weber and Frederick Taylor. Guided by the need to achieve the highest level of efficiency in administration, Max Weber developed bureaucracy, a prescriptive management system anchored on legal rational authority (Weber, 1978:217). He argued that if applied correctly, bureaucracy could promote efficiency of the highest level (Weber, 1978:217).

The key tenets of bureaucracy according to Weber (1978:217-220) include, but not limited to, strict adherence to rules and regulations, remuneration of workers, division of labour, hierarchy of authority, and record keeping. In his book entitled "Scientific Management," Frederick Taylor developed what he referred to as the one best way of getting work done by making it scientific (Taylor, 1919:25). Taylor argued that the application of science to work improved efficiency by negating the rule of the thumb and introducing a systematic way of completing tasks (Taylor, 1919:25). He developed four key principles of scientific management that were to be applied at the workplace (Taylor, 1919:36). These were: application of science to each element of a job, scientific selection and training of workers, collegial relations between workers and managers, and equal division of work between managers and workers (Taylor, 1919:36).

According to Robinson (2015:5), the traditional Public Administration paradigm was heavily influenced by the bureaucratic ideals advanced by Max Weber. After the second world war, governments in most countries were highly formalised and hierarchically structured (Osborne, 2010:3; Robinson, 2015:5; Białynicki-Birula, 2019:20-21). During this paradigm, the state assumed dominance and it was expected to provide all essential services to its citizens such as health, education, employment, and welfare services (Białynicki-Birula, 2019:20-21). In most countries, the state was directly involved in economic activities and owned enterprises in sectors such as electricity, mining, transport, and telecommunications, among others (Białynicki-Birula, 2019:20-21). In the developing world, most countries were unshackled from the chains of colonialism during this paradigm, and they relied on the state to foster economic development and provide political and economic freedom to the citizens (Bertucci, 2009:3). Consequently, many developing countries embraced socialist ideals such as nationalisation (Bertucci, 2009:3). In Zambia, for example, the government nationalised non-mining companies and mining companies in 1968 and 1969, respectively (Madimutsa, Malisase, Daka & Chewe, 2021:4). According to Bertucci (2009:3), public policy during this paradigm was centralised and dominated by the state. This means that participation of citizens and non-state actors in public policy formulation and implementation was limited. In addition, public policy making was delinked from implementation (Robinson, 2015:5).

According to Denhardt and Denhardt (2007:5-6), the key elements of the traditional Public Administration paradigm can be summarised as follows:

- The focus of government is on the direct delivery of services through existing or through newly authorised agencies of government.
- Public policy and administration are concerned with designing and implementing policies focused on a single, politically defined objective.
- Public administrators play a limited role in policymaking and governance; rather they are charged with the implementation of public policies.

- The delivery of services should be carried out by administrators accountable to elected officials and given limited discretion in their work.
- Administrators are responsible to democratically elected political leaders.
- Public programmes are best administered through hierarchical organisations, with managers largely exercising control from the top of the organisation.
- The primary values of public organisations are efficiency and rationality.
- Public organisations operate most efficiently as closed systems; thus, citizen involvement is limited.
- The role of the public administrator is largely defined as planning, organising, staffing, directing, coordinating, reporting, and budgeting.

By the 1970s, the traditional Public Administration paradigm started to come under immense criticism for being inefficient, too centralised, rigid, and unresponsive to the needs of the citizens (Bertucci, 2009:4; Osborne, 2010:3). After many years of bureaucratisation and assuming control over several sectors, the state had become bloated (Bertucci, 2009:4). It had simply taken up too many responsibilities and it was beginning to struggle to perform all of them. For example, the state in many countries was struggling to provide goods and services to its citizens (Bertucci, 2009:4; Osborne, 2010:3). Critics contended that remedies to the ills of this paradigm were contained in public sector reforms such as privatisation, deregulation, debureaucratisation, and decentralisation (Bertucci, 2009:4; Robinson, 2015:7). It is important to state here that the proposed reforms did not call for a total departure from traditional public administration, instead, they sought to improve the management of the public sector by reducing its size and scope and cutting down its costs (Robinson, 2015:7).

2.3.4.2 New public management paradigm

New Public Management (NPM) is a term that was devised by Christopher Hood (Hood, 1991:1,6). It is a paradigm that guided the management of the public sector in most developed and developing countries during the 1980s and 1990s (Çolak, 2019:517). It emerged as the successor of the traditional Public Administration paradigm at end of the 1970s and into the 1980s (Çolak, 2019:517). The main agenda of NPM was to introduce private sector principles to the management of the public sector (Çolak, 2019:517). This is why NPM is also referred to as entrepreneurial government (Osborne & Gaebler, 1992:xix). NPM is a loose term used to refer to a range of closely related reforms, which were adopted in some Organisation for Economic Co-operation and Development (OECD) countries to remedy the public sector failures associated with traditional public administration (Hood, 1991:4; Christensen & Lægreid, 2007:19; Vabø, 2009:3; Robinson, 2015:7).

According to Barzelay (2001:2) and Osborne (2010:3), NPM represented a shift in the focus of public policy implementation and service delivery from a centralised approach to a decentralised one. This was done by de-emphasising public sector monopoly in service delivery and bringing the private sector on board through privatisation of functions that were previously performed by the public sector (Denhardt & Denhardt, 2007:13). This shows that under NPM, public policy and service delivery were no longer a preserve of the state. As already stated, the goal of NPM was not to replace the Weberian model of managing the public sector, it was to improve its efficiency by adding new approaches anchored on private sector management techniques such as contractualism, performance based management, flexibility, and cost control, among others (Lane, 2002:3; Robinson, 2015:7). Through the application of private sector techniques, NPM sought to create a leaner, flexible, and inexpensive public sector that would enhance efficiency and effectiveness in policy implementation and service delivery (Robinson, 2015:7). According to Pollitt and Bouckaert (2011:15), “efficiency is the ratio between inputs and outputs, whereas effectiveness is the degree to which the desired outcomes result from the outputs.”

According to Hood (1991:4-5), NPM reforms call for the following key features:

- Having qualified and proactive managers possessing discretionary powers.
- Clearly stated goals and performance standards and rewarding based on performance.
- Debureaucratising and decentralising of the public sector.
- Introduction of competition in the public sector through contractualism and public tendering.
- Introduction of private sector human resource practices such as flexible hiring and rewards.
- Application of discipline and parsimony to reduce costs.

Osborne (2010:3) and Robinson (2015:7) argue that the main aim of NPM was cost control through the adoption of private sector managerial techniques such as contractualism and public tendering, among others. Simply put, NPM advocated for the public sector to adopt a business-like approach in order to make it more flexible (Denhardt & Denhardt, 2007:13-14). The assumption for adopting private sector techniques was that, in comparison with bureaucratisation, private sector management practices were better placed to trigger efficiency and effectiveness in public policy implementation and service delivery (Osborne, 2010:3; Robinson, 2015:7).

It is widely believed that, before it was globalised, NPM reform first appeared in the 1970s in capitalist countries including the United Kingdom (UK), the United States of America (USA), New Zealand, and Australia that embraced neo-liberalism, which opposes state monopoly in service delivery and champions the introduction of business approaches to public sector management (Barzelay, 2001:2; Vabø, 2009:8). According to Lynn (2006:44), the spread of NPM reforms to

developing countries has been driven by international organisations such as: OECD, United Nations (UN), International Monetary Fund (IMF), and World Bank using international aid. In addition, Haque (2004:3) argues that the globalisation of NPM has also been driven by professional groups and/or associations such as “PUMA (Public Management Programme) for the OECD countries, SIGMA (Support for Improvement in Governance and Management) for Central and Eastern European countries, and the Commonwealth Secretariat (especially Management and Training Services Division) for many developing countries.” Denhardt and Denhardt (2007:16) provide examples of how NPM reforms were applied. They posit that, in the UK, New Zealand, and Australia, NPM reforms focused on reducing the cost and size of the public sector through privatising and tendering of public services and restructuring of the public sector (Denhardt & Denhardt, 2007:16). In addition, to enhance financial management and to ensure the prudent utilisation of resources, public managers were subjected to public scrutiny. In the UK, citizen’s charters were introduced to hold public agencies and public managers accountable and responsible for providing quality services (Denhardt & Denhardt, 2007:16; Wegrich, 2009:146). In the USA, the equivalent of NPM was referred to as reinventing government (Osborne & Gaebler, 1992; Kearney & Hays, 1998:38). The term was coined by Osborne and Gaebler (1992) in their book entitled “Reinventing Government.” The Bill Clinton administration represents a significant period for NPM reforms in the USA. In the early 1990s, the Bill Clinton administration set out to reinvent the government through the “National Performance Review (NPR)” and the “Government Performance and Results Act” (Pfiffner, 1997:45; Kearney & Hays, 1998:38; Denhardt & Denhardt, 2007:16). Among others, the NPR recommended reforms to procurement procedures and human resource policies. In addition, it recommended the use of improved information technology in the public sector (Pfiffner, 1997:58; Denhardt & Denhardt, 2007:16). On the other hand, the Government and Performance Results Act called for public managers to develop results oriented management systems and establish clear performance standards (Denhardt & Denhardt, 2007:16; Brass, 2012:1,4).

The theoretical underpinnings of NPM lay in a hybrid of two different approaches to public sector reforms (Hood, 1991:5). The first is new institutional economics, which is anchored on public choice theory and principal-agent theory (Hood, 1991:5), which argue that the decisions and behaviours of public managers are driven by self-interest at the expense of the state’s interests (Robinson, 2015:8). Thus, the generation of NPM reforms such as decentralisation, performance-based rewards, and responsiveness were meant to curtail the problems identified by the public choice theory and the principal-agent theory (Hood, 1991:5; Promberger & Rauskala, 2003:5; Robinson, 2015:8). The second is the business type managerialism, which advocates for the implementation of private sector practices in the public sector (Hood, 1991:5-6; Promberger & Rauskala, 2003:6). Managerialism is aimed at improving the performance of the public sector by hiring qualified and proactive managers with discretionary powers, deregulating the public sector

through privatisation and contracting out services, automating service delivery through information technology, and reducing costs through discipline and parsimony (Hood, 1991:4-5; Kettl, 2005:46-57).

After dominating the field of Public Administration during the last quarter of the twentieth century, NPM suffered the same fate as its predecessor (Çolak, 2019:517). At the onset of the twenty-first century, NPM started to come under fierce criticism (Hood, 1991:8-9). One of the major criticisms levelled against NPM is that it lacks universal applicability. For example, the application of NPM has produced varying results in developed and developing countries due to differences in institutional capacity and availability of skilled workers (Hood, 1991:9; Robinson, 2015:9). Another criticism that NPM faced is that it ignores critical public sector values such as public interest, justice, and equality. This emanates from the inherent incompatibility of private sector principles with public sector values (Çolak, 2019:521). In addition, NPM was criticised for fragmenting the public sector, reducing political accountability, and reducing political control over public sector workers, public policy implementation, and service delivery (Hood, 1991:9; Manning, 2001:306; Reiter & Klenk, 2018:12). The loss of faith in NPM set in motion a series of public sector reforms aimed at addressing problems associated with its principles. These are collectively referred to as post-new public management (Post-NPM) (Osborne, 2010:5-6; Reiter & Klenk, 2018:12). Post-NPM is subsequently discussed next.

2.3.4.3 Post-new public management paradigm

Post-NPM is a general concept used to refer to a wave of reform approaches that have emerged since the late 1990s and 2000s to resolve the problems created by NPM (Pollitt & Bouckaert, 2011:8; Çolak, 2019:518; Karataş, 2019:1796). According to Christensen and Lægreid (2007:5,10,12) and Dalingwater (2014), post-NPM seeks to give control back to the state by strengthening the central government financially and institutionally. Post-NPM advances a collaborative, coherent, and coordinated approach to public policy and service delivery because present day problems are complex and require collaborative efforts (Christensen & Lægreid, 2007:12; Dalingwater, 2014; Robinson, 2015:9). It seeks to build a coordinated and integrated government system that promotes strong collaboration between the public sector, the private sector, and civil society (Christensen & Lægreid, 2007:12; Dalingwater, 2014). Therefore, post-NPM campaigns for inter-organisational and multi-level governance systems through collaborations and networks (Osborne, Radnor & Nasi, 2012:135; Dalingwater, 2014). This is why post-NPM is sometimes referred to as 'one-stop government', 'joined-up government', and 'whole-of-government' (Christensen & Lægreid, 2007:5; Dalingwater, 2014). According to Robinson (2015:9), post-NPM has placed citizens at the centre of reforms by ensuring that they have a say about the nature of policies and services that they desire. Dunleavy, Margetts, Tinkler and Bastow

(2006:9,21,26) posits that post-NPM seeks to enhance citizen participation in public policy and service delivery by replacing traditional administrative methods with digital technology.

As earlier indicated, post-NPM is an umbrella term used to refer to the reform approaches that sought to address the problems created by NPM (Pollitt & Bouckaert, 2011:8; Çolak, 2019:518; Karataş, 2019:1796). The reform approaches that fall under the post-NPM umbrella include, but not limited to, New Public Governance (NPG), Neo-Weberian State (NWS), Governance Networks, and Digital Era Governance (DEG). These are discussed briefly hereunder.

2.3.4.3.1 New public governance

The NPG model, proposed by Stephen Osborne, is a response to the complexities and realities surrounding public policy in the twenty-first century (Osborne, 2010:1,9). According to Çolak (2019:529), NPG is the most comprehensive model of all the post-NPM models, and it claims to be the third stage in the evolution of the field of Public Administration. The model proposes co-production of public policy and services by underscoring inter-organisational relations and governance of processes (Çolak, 2019:529; Osborne, 2010:9). It argues that public policy issues of the twenty-first century are complex and cannot be solved using the centralised approach recommended by traditional Public Administration or the business-like model proposed by NPM (Osborne, 2010:8-9; Robinson, 2015:9). The NPG model promotes the creation of trustworthy partnerships and networks in the formulation and implementation of public policies (Çolak, 2019:529). According to Osborne (2010:9), the NPG model proposes a pluralist approach to public policy formulation and implementation. “It posits both a plural state, where multiple interdependent actors contribute to the delivery of public services, and a pluralist state, where multiple processes inform the policy-making system” (Osborne, 2010:9). Çolak (2019:529) and Robinson (2015:9) state that the NPG model prioritises the needs of the citizens and emphasises their participation in governance.

2.3.4.3.2 Neo-Weberian State

The NWS model was coined by Christopher Pollitt and Geert Bouckaert in 2004 (Pollitt & Bouckaert, 2011:19). The NWS model is the refurbished version of the Weberian model (Drechsler & Kattel, 2009:95). Thus, the basis of the NWS model remains the original Weberian model, which is reconfigured by adding some NPM elements (Drechsler & Kattel, 2009:95). In the same vein, Çolak (2019:529) states that NWS does not reject NPM, instead, it recommends a fusion of relevant market-based principles with Weber’s bureaucracy. According to Pollitt and Bouckaert (2011:19), NWS modernises Weber’s bureaucracy by way of improving its professionalism, enhancing its efficiency, and shifting its focus towards the needs of the citizens. The NWS model contends that citizens should be directly involved in the process of developing public policies as they are the ones who are directly affected by them (Pollitt & Bouckaert,

2011:119). It also posits that the state should focus on the attainment of results that are valuable to citizens rather than on strictly adhering to procedures of getting things done (Pollitt & Bouckaert, 2011:119).

2.3.4.3.3 Governance networks

According to Koliba et al. (2010:xxv), governance networks can be defined as “inter-organisational networks comprised of multiple actors, often spanning sectors and scale, working together to influence the creation, implementation, and monitoring of public policies.” The network model proposes the establishment of networks among the state, for-profit organisations, and not-for-profit organisations in public policy formulation and service delivery (Pollitt & Bouckaert, 2011:20; Klijn & Koppenjan, 2015:4). This is because, present-day problems are too complex for governments, businesses, and civil society to solve by themselves due to limitations in resources, among others (Klijn & Koppenjan, 2015:4). Examples of governance networks include, but not limited to, grant and contract agreements, regulatory systems, and public-private partnerships (PPPs) (Koliba et al., 2010:30). The network model postulates that governance networks are more effective than the Weberian model and market principles in public policy formulation and service delivery (Pollitt & Bouckaert, 2011:20) as they are highly dynamic and more open to innovation (Castells, 2010:501-502). In addition, Kim (2006:22) argues that, unlike traditional Public Administration and NPM, governance networks promote mutual benefits and trust among governments, businesses, and civil society in policy formulation and service delivery.

2.3.4.3.4 Digital era governance

The DEG model, devised by Patrick Dunleavy, Helen Margetts, Simon Bastow, and Jane Tinkler (Dunleavy et al., 2006:217), is a reaction to the widely documented shortcomings of NPM, disaggregation, competition, and incentivisation (Dunleavy et al., 2006:7; Margetts & Dunleavy, 2013:3-4). The emergence of the DEG model has been necessitated by the pervasive usage of the internet and information Technology (IT) in the governance process (Margetts & Dunleavy, 2013:1; Białożył, 2017:117; Roberts, Hernandez, & Iff, 2021:1; Ravšelj, Umek, Todorovski & Aristovnik, 2022:1). Thus, the DEG model underscores the influence of the internet and IT in public policy formulation and service delivery (Dunleavy, Evans, and McGregor, 2015:12; Dimeski, 2019:49; Roberts et al., 2021:1). The model posits that digital technology has facilitated co-creation of public policies and co-production of public services by bringing government closer to the citizens, thereby enhancing their participation (De Vries, 2010:3; Madyatmadja, Prabowo & Kosala, 2016:155; Białożył, 2017: 123,125; Roberts et al., 2021:1; Ravšelj et al., 2022:1).

There are three main features of the DEG model, and these are: reintegration; need-based holism, and digitalisation (Dunleavy et al., 2006:227-228; De Vries, 2010:3). Reintegration aims to undo the disintegration of the public sector by NPM (Dunleavy et al., 2006:227) through re-

governmentalising the responsibilities that are fundamentally expected to be performed by the state (Margetts & Dunleavy, 2013:6). Need-based holism focuses on using digital technologies to create a citizen focused and responsive government. This can be done through creating end to end services and establishing one-stop processes (Dunleavy et al., 2006:227; Margetts & Dunleavy, 2013:6; Dunleavy et al., 2015:12). Digitalisation proposes that the traditional processes in the public sector should be substituted by electronic technologies (Dunleavy et al., 2006:227; Margetts & Dunleavy, 2013:6; Dunleavy et al., 2015:12).

2.4 UNDERSTANDING THE NATURE OF PUBLIC POLICY

Having concluded the review of the theory of public administration, which has provided the context in which public policies are formulated, the study will now delve into a discussion on public policy. This will inform the study on the nature of public policies and how they are formulated.

2.4.1 Defining public policy

Like public administration, it is difficult to arrive at a single definition for public policy (Peters & Pierre, 2006:1-2; Gerston, 2010:5; Birkland, 2011:7; Peters & Zittoun, 2016:4; Dye, 2017:8). It is no wonder, Peters and Zittoun (2016:4) argue that there are as many different definitions of public policy as there are different scholars. The lack of agreement on the scope of public policy is one of the major causes of this definitional challenge (Hill, 2005:7-8; Peters & Pierre, 2006:1-2; Gerston, 2010:6; Peters & Zittoun, 2016:4-5). The changing nature of the role of the state and other actors and the evolution of public policy as a science and as an art have made it difficult to delineate its boundaries (Hill, 2005:7-8; Peters & Zittoun, 2016:4-5). Nonetheless, all definitions of public policy point out, directly or otherwise, that public policies *“affect a greater variety of people than do private decisions”* (Birkland, 2011:9). Torjman (2005:8) defines public policy as the process that *“seeks to achieve a desired goal that is considered to be in the best interest of all members of society.”* For Gerston (2010:7), *“public policy is the combination of basic decisions, commitments, and actions made by those who hold or influence government positions of authority.”* Serban (2015:3) defines public policy as *“a system of laws, regulatory measures, courses of action, and funding priorities concerning a given topic promulgated by a governmental entity or its representatives.”* According to Peters (2016a:21), *“public policy is the sum of government activities, whether pursued directly or through agents, as those activities have an influence on the lives of citizens.”*

This study defines public policy as *a deliberate course of action propelled by the collective efforts of state and non-state actors with the aim of solving specific public problems or protecting specific public interests.* This resonates with the argument by Torjman (2005:8) who posits that *“any given policy represents the end result of a decision as to how best to achieve a specific objective.”* Although arriving at a single agreed upon definition of public policy is clearly difficult, Birkland

(2011:8-9) postulates that it is possible to identify the key attributes of public policy. Birkland (2011:8-9) identified the key attributes of public policy and these include the following:

- Public policies represent solutions aimed at solving specific identified problems.
- Public policies are produced by collective efforts and engagement from the government and other actors like the private sector and not-for-profit organisations.
- The government is ultimately responsible for public policies.
- Public policies represent the interests of different actors.

From the foregoing, it is evident that the government takes centre stage in the process of developing public policies due to their focus on public rather than private problems (Anderson, 2003:3; Birkland, 2011:8-9; Pinterič, 2014:8; Dye, 2017:2). This is important because it informs the study that despite several stakeholders being involved in public policy, the government must provide the necessary guidance for public policies to be developed and implemented. Therefore, when developing an enterprise level OHS policy for CHAU, government policies related to OHS will be consulted.

2.4.2 Theories of public policy

There are several theories that discuss how public policies are developed. This study will discuss four of them and these are: Elite theory, institutional theory, rational choice theory, and systems theory. This study will be guided by all the four theories.

2.4.2.1 Elite theory

The roots of the general elite theory can be traced back to the nineteenth and twentieth century writings of Gaetano Mosca, Vilfredo Pareto, and Robert Michels who are widely regarded as classical elite theorists (Delican, 2000:323; Higley, 2008; Harris, Bitonti, Fleisher & Binderkrantz, 2020:1). Their writings were unanimously centred on the inevitability of every society being ruled by a small, but very powerful and organised group (Mosca, 1939:50; Delican, 2000:323; Higley, 2008; Harris *et al.*, 2020:1). The central argument of the elite theory is that every society, no matter how underdeveloped or developed it may be, is divided into two groups, the elites and the masses (Mosca, 1939:50; Dye & Zeigler, 2009:1-3; Pokharel, 2019:172; Harris *et al.*, 2020:1). The elites are a group of a few but powerful individuals who rule and govern society by maintaining control over education and knowledge, wealth, political processes and decisions, and information (Mosca, 1939:50; Dye & Zeigler, 2009:1-3; Pokharel, 2019:172; Harris *et al.*, 2020:1). Individuals belonging to the group of elites may include senior politicians, successful businessmen, senior military personnel, high ranking civil servants, leaders of mass trade unions, and leaders of influential civil society organisations (CSOs) (Mills, 1956:276; Hill, 2005:37; Higley, 2008; Dye & Zeigler, 2009:1-3). On the other hand, the masses are the larger group of society that is controlled

by the elites (Mills, 1956:276; Dye & Zeigler, 2009:1-3; Pokharel, 2019:172). The masses have little or no control over societal decisions as they are largely apathetic, uninformed, and misinformed (Mills, 1956:1; Dye & Zeigler, 2009:1; Pokharel, 2019:172). Movement of Individuals from the masses to the elites is possible, especially when one conforms to the values of the group of elites. However, this movement is not easy because few people from the masses can attain the power and influence required to be part of the elites (Dye & Zeigler, 2009:1; Dye, 2017:19).

With regards to public policy, the elitist theory contends that the ruling elite influence the outcome of the public policy making process (Mills, 1956:3; Birkland, 2011:168; Dye, 2017:19). The theory argues that policy action is intended to satisfy and protect the interests of the ruling elite who dominate other actors during the policy making process (Dye & Zeigler, 2009:3). The elite theory posits that the ruling elite manipulate policy outcomes by taking advantage of the ignorance of the masses (Hahn, 1987:223; Pokharel, 2019:172). As Dye and Ziegler (2009:110) put it, the masses are *“politically uninformed, have no real opinions on policy issues, and therefore respond inconsistently to policy questions.”* Therefore, the elitist perspective posits that public policies are seldomly a reflection of the input of the governed but the ruling class who legitimise their preferences by using government workers and government institutions (Mills, 1956:6; Anderson, 2003:17; Peters, 2016a:71). According to Anyebe (2018:10), the elite theory assumes that only the elite have the competency to develop public policies to promote the welfare of the governed. According to Dye (2017:18-19), the elite theory can be summarised as follows:

- Every society is divided into two groups, the ruling elites and the governed masses.
- Public policies reflect the preferences of the elites and not the masses.
- Only individuals who conform to the values of the elites can move upwards from the masses to the group of elites.
- Elites share a collective understanding of the values of the social system and how to preserve it.

There are some criticisms that have been levelled against the elite theory. One of the major weaknesses of the elite theory is that it erroneously assumes that the masses in every society are passive players in the policy making process (Mills, 1956:1; Dye & Zeigler, 2009:1; Pokharel, 2019:172). This does not portray a balanced view of society as it ignores the power that the masses possess through collective action, especially in modern times in which civil liberties are guaranteed and citizens have easy access to information (Walker, 1966: 287-288; Birkland, 2011:184). In addition, the elite theory wrongly assumes that the elites have control over the masses because they enjoy continuous unity (Dahl, 1958:465; Birkland, 2011:184). Given that the elites are drawn from different sections of society such as the military, media, large corporations, and political parties (Mills, 1956:276; Hill, 2005:37), their interests may collide

regularly and this may make it difficult for them to maintain control over the masses (Dahl, 1958:465; Birkland, 2011:184).

2.4.2.2 Institutional theory/ institutionalism

The central focus of institutionalism is to understand political institutions and how they influence the behaviour and decisions of individuals (Anderson, 2003:19; Cochran, Mayer, Carr, & Cayer, 2009:6; Pinterič, 2014:23; Dye, 2017:11). Originally, the institutional theory was concerned with describing the structure, powers, rules, and functions of institutions. However, its focus shifted towards explaining the political processes in institutions while concentrating on the behaviour of participants in the process (Birkland, 2011:92-93; Mahmud, 2017:136). One of the major arguments of institutionalism is that institutional structures, rules, values, and practices can empower or constrain the behaviour and decisions of individuals (March & Olsen, 2006:3-4; Birkland, 2011:92-93). With regards to public policy, institutionalism posits that the contents of public policies are determined by the practices, rules, and structure of the organisations involved in the policy development process (Anderson, 2003:19; Birkland, 2011:92; Peters, 2016b:57-58). The theory argues that public policy is a product of the interactions between the government and other stakeholders who have individuals working for them (Birkland, 2011:92; Peters, 2016b:57-58). The behaviour and decisions of these individuals are influenced by the regularised patterns of behaviour prevailing in the organisations they belong to, and this ultimately influences the contents of public policies that they favour (Birkland, 2011:92; Peters, 2016b:57-58).

In each institution, the individuals operating there are not fragmented, instead, they are knitted closely together by the rules and structures that define their institutions (March & Olsen, 2006:4; Peters, 2016b:57-58). These rules and structures shape their behaviour and influence their decision making. As Peters (1999:144) puts it, institutionalism posits that *“institutions create greater regularity in individual behaviour than would be found without the existence of those institutions.”* March and Olsen (2006:3) and Peters (2016b:58) argue that sanctions can be imposed on individuals who deviate from the expectations of their institutions. This means that the policy decisions that individuals make or push for are influenced by their institutions. The institutional theory argues that public policies are legitimised by government institutions, which have established structures and set of rules that prescribe human behaviour (Anderson, 2003:16; March & Olsen, 2006:4). The institutional theory also argues that the established rules prevailing in government institutions are not neutral due to normative values in public administration. This means that government institutions can favour some interests in society thereby influencing the focus of public policies (Anderson, 2003:16). The institutional theory further argues that present and future policies of an institution are influenced by its past policies (Peters, 1999:63; Steimo, 2008:127-129; Cochran, *et al.*, 2009:6).

2.4.2.3 Rational choice theory

Originally, the rational choice theory was an economic theory, which involved *“applying the principles of microeconomic theory to the analysis and explanation of political behaviour”* (Anderson, 2003:20). However, it has become a useful theory in several social sciences such as sociology, psychology, political science, and public administration (Anderson, 2003:20; Ogu, 2013:90). Anderson (2003:20) suggests that the earliest scholar to use rational-choice theory to study the political process was Anthony Downs in 1957. According to Griggs (2007:173), the rational choice theory has become one of the key theories in studying public policy. Ogu (2013:92) argues that the emphasis on the individual interest is always the starting point of the rational choice theory. The theory argues that individuals apply rationality in the decisions that they make (Anderson, 2003:20; Griggs, 2007:173; Ogu 2013:90; Cairney, 2020:207). According to Griggs (2007:173), *“rational individuals are those individuals who, when faced with distinct courses of action or policy options, choose the feasible course of action, which is most likely to maximise their own utility.”* Ultimately, as Anderson (2003:20) and Griggs (2007:173) put it, it is the self-centred decisions of individuals that shape group and organisational decisions.

According to Hoey (2013:688), there are three main assumptions of the rational choice theory, and these are: individuals have selfish preferences; they maximise their own utility; and they act independently based on full information. Essentially, the rational choice theory sees public policy making as a rational process. It postulates that policy actors apply rationality and pick policy options that maximise their self-interests (Hill, 2005:51-52; Birkland, 2011:302; Cairney, 2020:207). The rational choice theory argues that no policy actors are naive about the policy choices available to them, rather, they make use of all available information and make informed decisions when they choose from a myriad of policy choices (Anderson, 2003:20; Hoey, 2013:688). It is no wonder Downs (1957:137-138) argues that politicians and voters apply rationality insofar as it maximises the attainment of their interests.

The rational choice theory is not without weaknesses. A major weakness of the theory relating to public policy is that it downplays the influence of group interests on individual interests by assuming that individuals are purely guided by selfish interests throughout the policymaking process (Griggs & Howarth, 2002:102-107; Lichbach, 2003:32-33; Griggs, 2007:178). This ignores the fact that individuals can also be influenced by the desire to satisfy group interests or meet societal expectations (Griggs, 2007:178). Another weakness is that the rational choice theory posits that individuals apply rationality in the policymaking process in order to choose policy options that maximise their self-interests. This *“is incompatible with the ambiguity of the public policy process,”* which makes it difficult for individuals to comprehend all the possible policy alternatives and their consequences (Griggs & Howarth, 2002:107).

2.4.2.4 Systems theory

The systems theory traces its origin to David Easton's 1965 book, *"A Systems Analysis of Political Life."* The main thrust of the systems theory is that public policies are a product of the interactions between the political system and its environment (Anderson, 2003:14; Sabatier, 2007:267; Blindenbacher & Nashat, 2010:47). According to Easton (1965:21), the political system, sometimes known as the black box, refers to *"interactions through which values are authoritatively allocated for a society."* It encompasses all political processes and government institutions, which have the legitimate power to make decisions that are binding on society (Anderson, 2003:14; Sabatier, 2007:267; Syzdykov, Sarsenova, Babajanyan, Voznyak, Bexultanova, Kudiyarova, & Dautbaeva-Mukhtarova, 2016:2189-2192). The environment, on the other hand, encompasses all other systems existing outside the political system (Easton, 1965:21-22; Sabatier, 2007:267). According to Easton (1965:21-22), the political system's environment can be divided into two, the intra-societal environment and the extra-societal environment. The former refers to an environment consisting of systems that exist in the same society as the political system such as the social system whereas the latter refers to an environment outside of the immediate society in which the political system exists such as the international political system (Easton, 1965:21-22; Parillo, 1993:222-225; Stewart & Ayres, 2001:81-82).

The systems theory argues that in order for public policies to be produced, the political system must receive inputs in form of demands and support from the environment (Parillo, 1993:222-225; Anderson, 2003:15). Demands include the calls for policy action in response to public problems whereas support includes accepting policy decisions made by the political system (Parillo, 1993:222-225; Anderson, 2003:15). Once the political system has received inputs, it responds by producing outputs in form of policies and laws, among others (Easton, 1957:387-390; Anderson, 2003:15; Hill, 2005:19-20). The environment responds to these outputs to give feedback to the political system (Easton, 1957:387-390; Anderson, 2003:15; Hill, 2005:19-20). This feedback can be in form of new inputs, which in turn, trigger new outputs that will generate new feedback (Easton, 1957:387-390; Anderson, 2003:15). According to Anderson (2003:15), the systems theory argues that this process of input – output – feedback is a continuous one that makes public policymaking an unending process.

There are a number of criticisms that have been levelled against the systems theory. One of the major weaknesses of the systems theory is that it is too abstract and does not explain the practical processes that guide and determine the public policy making process (Stewart & Ayres, 2001:92; Anderson, 2003:15). In addition, Stewart and Ayres (2001:92) posit that the systems theory does not provide adequate guidance on how to resolve ensuing systematic problems that can hinder the policy making process.

2.4.2.5 Group theory

The earliest proponent of the group theory, a branch of pluralism, is Arthur F. Bentley who wrote about it in 1908. The theory was later refined and built upon by David Truman in 1951 (Masumbe, 2021:140). The group theory postulates that public policy is a product of group struggle (Anderson, 2003:16; Pinterič, 2014:24; Dye, 2017:16-17; Masumbe, 2021:140). It sees public policy as a product of the interactions between influential groups and political authorities (Anderson, 2003:16; Dye, 2017:16-17; Masumbe, 2021:140). This theory states that in order for groups to influence public policy, they must have access to the corridors of political power or be able to create opportunities to share their interests with the political authorities and legislators (Masumbe, 2021:141). Any change of public policy within this model is attributed to change in the balance of power among policy actors (Pinterič, 2014:24). Power is understood usually as human and financial resources and ability of individual actors to activate them in the most efficient manner. The group theory states that in order to increase their influence on policy action, groups with similar interests form advocacy coalitions (Cochran *et al.*, 2009:7). The group theory assumes that a group's ability to influence policy decisions depends on factors such as established relations with government actors, quality of leaders, financial and human resources, and the ability to appease government officials (Anderson, 2003:16; Masumbe, 2021:141). Tactics such as wining, dining, and entertaining legislators and other public officials can enhance a groups influence on public policy (Masumbe, 2021:141).

2.5 UNDERSTANDING THE NATURE OF OCCUPATIONAL HEALTH AND SAFETY

Among other things, this section defines OHS, explains its nature, gives an account of its origin and evolution, and discusses the PDCA model of health and safety management.

2.5.1 Defining occupational health and safety

Defining OHS is challenging mainly due to two reasons. The first one is the ever-changing nature of workplace hazards due to rapid globalisation, technological advancement, workforce diversity, and the constant threat of war and terrorism (Alli, 2008:vii). The second one is its strong linkage to other fields like public health and environmental health (International Labour Organisation [ILO], 2003:2). For instance, the global outbreak of the coronavirus disease of 2019 (Covid-19) has become a concern for both public health and OHS experts (Schaapman, 2021:2-3). Similarly, occupational hazards such as chemicals, gases, biological agents, fire, among others, do not only affect human beings, but animals and the environment as well (ILO, 2003:2). Before defining OHS, it is imperative to define the terms occupation, health, and safety separately. Occupation simply refers to the workplace (ILO, 2016:12). Health is concerned with preventing people from suffering physically and mentally from work-related illnesses, whereas safety seeks to ensure that people do not suffer physical injuries at the workplace (Hughes & Ferrett, 2016:2-3). Although

health and safety can be defined separately, the boundary between them is so thin that they are mostly used together to represent the concern for the mental and physical well-being of people who come in contact with the workplace (Hughes & Ferrett, 2016:3).

There are numerous definitions of OHS. While all of them focus on alleviating occupational risks and hazards, they do not unequivocally state the mechanism used. According to the Joint ILO/World Health Organisation (WHO) Committee (cited by WHO, 2002:9), OHS *“should aim at: the promotion and maintenance of the highest degree of physical, mental, and social well-being of workers in all occupations; the prevention amongst workers of departures from health caused by their working conditions; the protection of workers in their employment from risk resulting from factors adverse to health; the placing and maintenance of workers in an environment adapted to their physiological and psychological capabilities; and, to summarise, the adaptation of work to workers and of each worker to his or her job.”* To the ILO (2016:13), OHS is *“a system that deals with the prevention of injuries and illnesses related to work, as well as the protection and improvement of the health of workers.”* Aside from not stating the mechanism used to alleviate workplace risks and hazards, the foregoing definitions are narrow in focus as they ignore the need to protect the environment and other people who come in contact with the organisation’s work environment.

As an improvement, Friis (2016:527) argues that OHS is the science that is concerned with making the workplace devoid of substances, materials, procedures or processes that are harmful to workers and others who come in contact with the workplace. Similarly, the ILO (2016:12) posits that OHS is concerned with *“all factors and conditions that affect the health and safety of workers in the workplace, or affect the employees, contractors, visitors, and any other person in the workplace.”* Unfortunately, Friis (2016:527) and ILO (2016:12) also ignore to state the mechanism for managing occupational risks and hazards. Additionally, they also overlook the need to protect the environment.

The International Occupational Hygiene Association (IOHA) (cited by ILO, 2003:7) offers a more comprehensive definition by seeing OHS as *“the science of the anticipation, recognition, evaluation and control of hazards arising in or from the workplace, and which could impair the health and well-being of workers, also taking into account the possible impact on the surrounding communities and the general environment.”* However, it equally does not state the mechanism for alleviating occupational risks and hazards.

This study argues that a definition for OHS must explicitly state the mechanism(s) used to alleviate occupational risks and hazards. As such, this study defined OHS as *the science of protecting people, property, and the environment from occupational risks and hazards by building a health and safety culture anchored on a tailored OHS policy.*

2.5.2 Scope of occupational health and safety

OHS is wide in scope due to a number of reasons. The following are just some of them:

- OHS applies to all workplaces because each organisation has its own unique risks and hazards. This means that irrespective of the perceived risk levels, all organisations must establish an OHS policy to alleviate its work-related risks and hazards (Hughes & Ferrett, 2016:2).
- OHS is applicable to all professions. This means that OHS requires a variety of competencies, experiences, and analytical skills in order to effectively safeguard the health and safety of workers and other people (Alli, 2008:vii; Hughes & Ferrett, 2016:2). As such, the development of OHS measures such as policies should consider various skills (Alli, 2008: vii; Hughes & Ferrett, 2016:2; ISO, 2018:10,19).
- OHS does not only focus on employees, but it also focuses on other people who might come into contact with the workplace such as contractors, visitors, and members of the public (ILO, 2016:12). This implies that when developing an OHS policy for CHAU, the health and safety of students, contractors, and visitors must be considered.
- OHS is closely linked to public and environmental health (ILO, 2003:2,7; Alli, 2008: vii). Consequently, some organisations have opted to integrate the management of OHS with other management systems. For example, ZESCO Limited has implemented an integrated Safety, Health, Environmental, and Quality (SHEQ) management system (ZESCO, 2022). Similarly, the University of Michigan in the US has developed an integrated Safety, Health and Environmental Policy (University of Michigan, 2022). Integrated management has been possible because international standards on OHS, environmental management, risk management, and quality management all use the PDCA model, which makes it easier to simultaneously achieve objectives for different systems (Taylor, *et al.*, 2004:544-545; Kymal, *et al.*, 2015:13-15; Manuele, 2019:661).
- Perhaps, the most significant factor contributing to the widening scope of OHS is the ever-changing nature of workplace hazards caused by rapid technological innovations, rapid globalisation, the advent of new forms of work, and increased diversity at work due to demographic changes (Alli, 2008: vii).

In view of the foregoing, organisations such as CHAU should establish flexible OHS policies that are appropriate to their work environment and which should be regularly reviewed to respond to changes and promote continual improvement in OHS performance (ILO, 2009a:17-18; Hughes & Ferrett, 2016:46; ISO, 2018:39).

2.5.3 Types of occupational hazards

As defined by Hughes and Ferrett (2016:4), a hazard is anything in the workplace that has the potential to cause harm to a worker. Hazards may take several forms including physical, chemical, biological, and ergonomical (ILO, 2011b:1; Hughes & Ferrett, 2016:4; McKinnon, 2020:143). The existence of hazards in the workplace means there is always a likelihood that workers may be harmed physically or mentally. The likelihood of physical and mental harm befalling workers due to exposure to hazards in the workplace is referred to as risk (ILO, 2011b:1; Hughes & Ferrett, 2016:4). In order to protect workers from occupational risks and hazards, employers must put in place measures such as an OHS policy (ILO, 2009a:5-6; Hughes & Ferret, 2016:51-52; ANSI, 2017:5-6; ISO, 2018:9).

Compiling a list of all possible individual occupational hazards is a challenging task as they are too many. Furthermore, new hazards keep coming to the fore due to the ever-changing nature of work (Donagi *et al.*, 2011). Thus, creating broad categories under which specific hazards can be classified depending on their nature has proved to be more realistic (Israel Institute for Occupational Safety and Hygiene [IIOSH], 2000:1-4; Donagi *et al.*, 2011). As such, the ILO has come up with *International Hazard Datasheets on Occupation* which present classifications of occupational hazards (IIOSH, 2000:1-4; Donagi *et al.*, 2011). Such efforts have culminated in the identification of seven major types of occupational hazards under which most specific occupational hazards can be classified. These are: accident hazards, chemical hazards, physical hazards, biological hazards, psychosocial, environmental, and ergonomical hazards (Donagi *et al.*, 2011; McKinnon, 2020:143). Below is a discussion of the said categories of occupational hazards.

2.5.3.1 Accident hazards

According to Donagi *et al.* (2011), accident hazards include all accidents of any form that may happen at the workplace. An accident is any unforeseen or unpremeditated event that causes injury and illness to workers, damages organisational properties, and causes environmental degradation (Hughes & Hughes, 2008:230; ILO, 2016:12). There are many types of accidents that can happen at the workplace, and these may include the following:

Mechanical and general accidents: these include injuries or illnesses resulting from transport accidents, falling from height or on the same level, drowning, burning, animal attack, amputation, and being crashed by falling or moving object (Donagi *et al.*, 2011).

Chemical accidents: these include injuries and illnesses resulting from the accidental spillage or release of chemicals, which can result in workers swallowing and inhaling harmful chemicals (Hughes & Hughes, 2008:13; Donagi *et al.*, 2011).

Electrical accidents: these are accidents involving electricity and static electricity. They may include electrocution or electric shock, electric burns, and electric fires and explosions (Donagi et al., 2011; Hughes & Ferrett, 2016: 298,300).

Radiation accidents: these are accidents involving exposure to ionising radiation emitted from radioactive materials (Hughes & Ferrett, 2016:413-417). They also involve coming in contact with non-ionising radiation emitted from ultraviolet radiation, laser beams, and infrared radiation, among others (Donagi et al., 2011; Hughes & Ferrett, 2016:413-417).

2.5.3.2 Physical hazards

Physical hazards are factors emanating from the work environment that can be harmful to the health and safety of workers (Friis, 2016:253; ILO, 2016: 16; McKinnon, 2020:143). These include excessive noise, excessive lighting, extreme heat or cold, excessive and repeated vibration of the entire body or parts of it, and ionising and non-ionising radiation (Hughes & Ferret, 2016:402-418; ILO, 2016:16).

2.5.3.3 Chemical hazards

According to Care Net Consultants (2021), all chemical *“substances in the workplace that have the potential to cause harm are categorised as chemical hazards.”* Chemicals can be found in three main state of matter, and these are: gas, liquid, and solid (ILO, 2016:15). McKinnon (2020:143) adds that chemical hazards may also include *“fumes, dusts, vapours, mists, and smoke”* (McKinnon, 2020:143). Some cleaning chemicals and hair chemicals can also be classified as chemical hazards (Care Net Consultants, 2021).

2.5.3.4 Biological hazards

“Any hazard that may stem from a biological origin is categorised as a biological hazard” (Care Net Consultants, 2021). These include viruses, bacteria, mold, fungi, yeast, and any other micro-organisms that workers can come across at the workplace (Hughes and Hughes, 2008:15; Hughes & Ferrett, 2016:359; Care Net Consultant, 2021). Biological hazards can come from animals, humans, and waste (Hughes and Hughes, 2008:15).

2.5.3.5 Ergonomic hazards

Ergonomic hazards are workplace factors that can cause harm to the musculoskeletal system of an employee (IIOSH, 2000:2; Hughes & Ferrett, 2016:235; Care Net Consultants, 2021). These may include awkward posturing, working overhead, lifting heavy objects, forceful exertion, contact stress, repetitive motion, vibration, and prolonged bending (Hughes & Ferrett, 2016:235; McKinnon, 2020:143).

2.5.3.6 Psychosocial hazards

Psychosocial hazards are hazards that harm the mental health of employees (Friis, 2016:530; Care Net Consultants, 2021). These are usually a combination of the hazards, which have been discussed above (Care Net Consultants, 2021). Prolonged and uncontrolled exposure to the aforementioned hazards can make employees experience excessive stress, which can in turn, affect their mental health (Friis, 2016:530; Hughes & Ferrett, 2016:419). Psychosocial hazards may also include sexual harassment, aggression and violence, bullying, and working longer than usual hours (Care Net Consultants, 2021).

2.5.3.7 Environmental hazards

Environmental hazards are factors that have the potential to compromise or destroy the natural environment thereby posing a threat to the health of humans (Centre for Disease Control [CDC], 2006:2). Hazards to the environment can have an adverse effect on the quality of air, water, and land. The environment can be polluted by toxic chemicals, smoke, and rubbish, among other things (Hughes & Hughes, 2008:15; Hughes & Ferrett, 2016:538).

2.5.4 The global occupational health and safety burden

There is overwhelming evidence indicating that organisations around the world are struggling to eliminate and/or control occupational hazards. A report titled *WHO/ILO Joint Estimates of the Work-related Burden of Disease and Injury, 2000 – 2016* revealed that occupational accidents and diseases were responsible for approximately 1.88 million global deaths in 2016 (WHO, 2021: viii). While 1.52 million (80.7 percent) of the deaths were caused by occupational diseases, the rest, 0.36 million (19.3 percent), were caused by work-related injuries. The leading cause of death was working for more than 55 hours per week, and it was responsible for an estimated 744, 924 deaths (WHO, 2021:37). The second and third deadliest risk factors were exposure to occupational particulate matter, gases and fumes, and occupational injuries, which were responsible for 450, 381 and 363, 283 deaths, respectively (WHO, 2021:viii). The deadliest diseases were “*chronic obstructive pulmonary disease (450, 381 deaths), stroke (398, 306 deaths), and ischemic heart disease (346, 618 deaths)*” (WHO, 2021:viii).

The highest death rates were recorded in South-East Asia and Western Pacific with both regions recording more than the global rate of 35 deaths per 100,000 persons. On the other hand, the Americas and Africa were the least affected regions by occupational deaths (WHO, 2021:39-40). With regard to age, there were fewer deaths among workers between the age of 15 to 54 compared to those aged 55 or more (WHO, 2021:42). In terms of gender, the report found that male workers died more than their female counterparts (WHO, 2021:41). Overall, between 2000 and 2016, occupational deaths had increased by about 177, 914. The increase was mainly due

to long working hours, which solely accounted for an increase of 165, 356 deaths (WHO, 2021:38).

2.5.5 Justification for occupational health and safety

First and foremost, OHS is a fundamental human right, which must be protected by every employer (Alli, 2008:20; UN, 2015:52; Khoza, *et al.*, 2021:57). As the UN (2015:52) puts it, “*everyone has the right to just and favourable conditions of work.*” Therefore, all employers have an obligation to protect their employees from injuries and illnesses arising from the workplace (Alli, 2008:20; ISO, 2018:9; McKinnon, 2020:9; Khoza *et al.*, 2021:57). Furthermore, there are three main justifications for OHS at enterprise level. These are the moral, legal, and financial justifications which are discussed below.

2.5.5.1 Moral justification

Every employer has the moral obligation to protect the right to life of their workers. As such, they must establish OHS policies and related measures to ensure that all their workers return home in good physical and mental health at the end of each workday (Hughes & Hughes, 2008:3; ILO, 2009:4). Unfortunately, the reality has been different for many workers as a number of them have died, fallen ill, and suffered injuries because of work (Hughes & Ferrett, 2016:4-5; Hämäläinen *et al.*, 2017:11; Fuller, 2019:6-7). According to Hämäläinen *et al.* (2017:11), on a daily basis, work-related diseases kill approximately 6,500 workers, while work-related accidents kill an estimated 1,000 workers. This means that a total of about 7,500 workers die every day because of occupational risks and hazards. Annually, it is assumed that 2.78 million workers die from work-related diseases and occupational accidents, which account for 2.4 million and 380,000 deaths respectively (Hämäläinen *et al.*, 2017:11). According to Reese (2017:38), poor OHS has telling consequences in that workers lose their lives or productive capacity, and their families are left to face economic hardships. The foregoing is an unacceptable scenario, which employers must seek to avoid by voluntarily electing to alleviate occupational risks and hazards (Hämäläinen *et al.*, 2017:11; Reese, 2017:38).

2.5.5.2 Legal justification

It is the moral obligation of the employer to willingly and motivationally self-regulate and provide a healthy and safe working environment (Entirely Safe, 2020). Unfortunately, not all employers may be motivated to self-regulate (Entirely Safe, 2020). As a result, governments around the world have developed laws that place a legal obligation on employers to protect workers from occupational accidents and diseases (Kendall, 2006:24; Entirely Safe, 2020). Laws of such nature are developed by the legislative wing of governments and are designed to hold employers accountable for work-related deaths, injuries, and illnesses (Hughes & Ferrett, 2016:4-8). In most

cases, such laws provide for the following measures: preventive measures that compel employers to stop or remedy dangerous practices and activities; punitive measures that impose fines, imprisonment or both for contravening health and safety regulations; and compensatory measures, which require employers to compensate victims of workplace accidents (Hughes & Ferrett, 2016:4-8; Safety Solutions, 2017). Therefore, employers should establish OHS policies to ensure that they are compliant with their legal obligations (ILO, 2009a:6; ISO, 2018:9). In many countries, Zambia included, the law clearly stipulates the duties and responsibilities of employers and other key stakeholders such as employees and contractors, among others (Occupational Health and Safety Act of 2010; Hughes & Ferrett, 2016:15).

2.5.5.3 Financial justification

Employers must establish OHS policies to lessen the chances of incurring colossal direct or indirect costs associated with occupational accidents and diseases (Kendall, 2006:3; Hughes & Ferrett, 2016:7; Reese, 2017:39; Fuller, 2019:7-8). Direct costs are directly linked to an accident and may be insured. Examples include insured or uninsured claims like fines from prosecuting agencies (Kendall, 2006:3; Hughes & Ferrett, 2016:7). On the other hand, indirect costs are not directly linked to an accident and may also be either insured or uninsured. Insured indirect costs include product or process liability claims, while the uninsured ones may include poor corporate image (Hughes & Ferrett, 2016:7). Generally, it is the uninsured costs that usually take a toll on the organisation's finances (Kendall, 2006:3; Hughes & Ferrett, 2016:6-7). For example, Figure 2.1 below, as adopted from Hughes and Ferrett (2016:6), presents the findings of a study by the UK's Health and Safety Executive (HSE) that established that uninsured costs can be 8 to 36 times more than the insured ones.

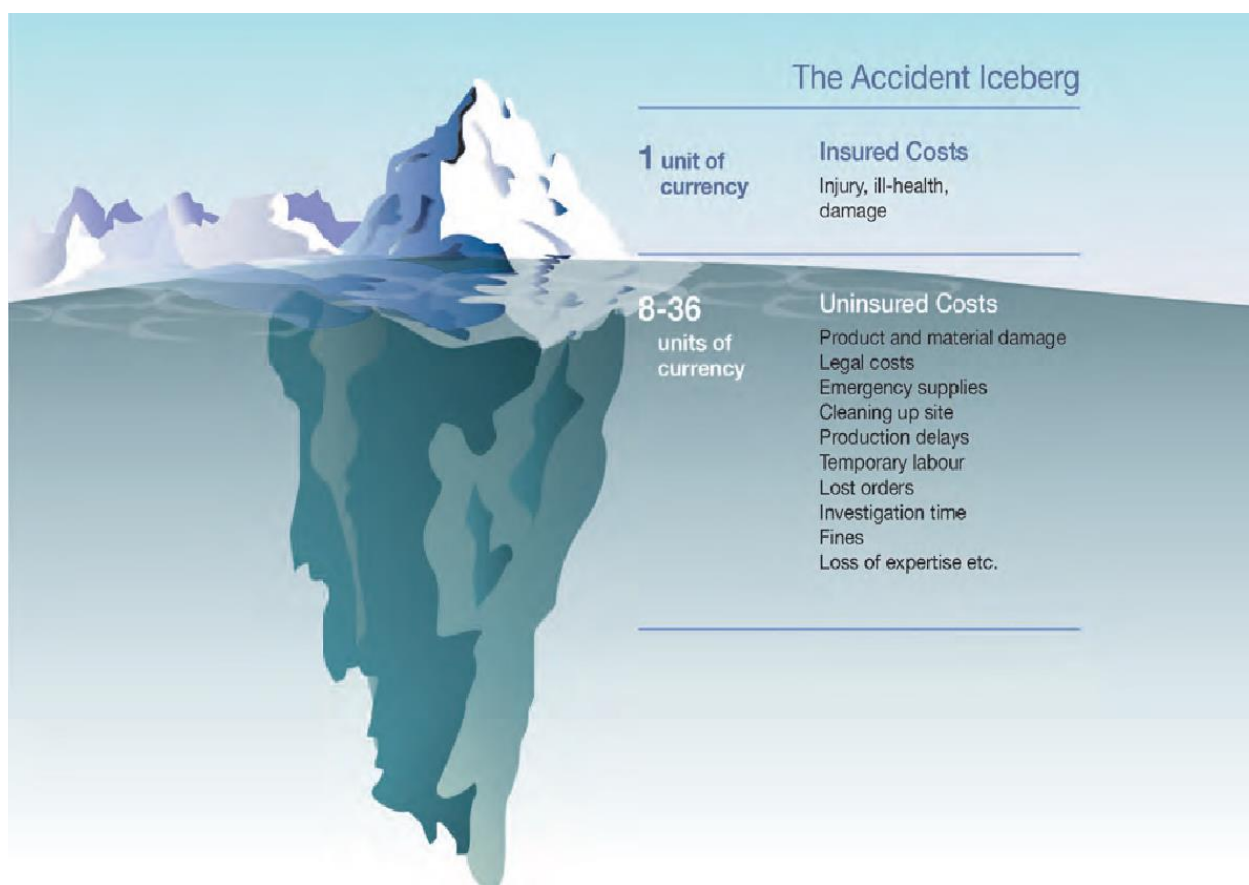


Figure 2-1: The accident iceberg (Source: Hughes & Ferrett, 2016:6)

2.5.6 Origin and evolution of occupational health and safety

Efforts to make work healthy and safe have existed since the early human societies. This section discusses the evolution of OHS from the era of hunter-gatherers to present-day.

2.5.6.1 Occupational health and safety before industrialisation

The earliest efforts to manage occupational hazards can be traced to the hunter-gatherer societies who had to devise safer methods of hunting animals, birds, and fish and gathering fruits, honey, seeds, roots, and eggs due to the risks posed by prey and predators (Reese, 2017:9; White, 2019:1). However, their OHS approaches were unwritten and only transferable from one generation to another through traditional practices, beliefs, and norms (Reese, 2017:9; White, 2019:1). Notable written OHS regulations first appeared in ancient Egypt, ancient Greece, ancient Babylon, and ancient Roman Empire (Harper, 1904:77; Reese, 2017:9; White, 2019:1; Hussain, 2021). The said civilisations were among the first to develop documented OHS regulations aimed at improving the working conditions of workers such as working hours, medical services, and compensation (Harper, 1904:77; Reese, 2017:9; White, 2019:1; Hussain, 2021). For example, in the 30th century BC, ancient Egyptians produced a written first aid guide aimed at providing medical assistance to workers (Reese, 2017:9; Hussain, 2021). Furthermore, in ca. 1780 BC, the

ancient Babylonia's developed the Hammurabi Code, which made it mandatory for employers to pay the medical bills of workers who got injured at work (Harper, 1904:77). However, these regulations were reactive and lacked the ability to assess risks (Reese, 2017:9; White, 2019:1).

From the 1st century AD onwards, there was an emergence of OHS approaches that focused on hazard identification, risk assessment, and provision of PPEs (Friis, 2016:34-35; IOHSOL, 2019). For example, in the 1st century AD, Pliny, a Roman scholar, created a face mask using animal bladder to protect miners from inhaling toxic dust and metal fumes (Friis, 2016:34; IOHSOL, 2019). In 1567, Philippus Aureolus, a Swiss born physician identified pulmonary diseases that were affecting metallurgists and smelter employees who were exposed to mercury (Goetsch, 2015:26). In 1700, ergonomic hazards such as awkward postures, repetitive moves, and lifting heavy objects were discovered by Bernardino Ramazzini (Franco & Franco, 2001:1382). In 1743, Ellenborg discovered the hazardous effects of lead, carbon monoxide, nitric acid, and mercury on gold miners (Safety Risk, 2013). While there was an improvement in OHS due to hazard identification and provision of PPEs, these measures were reactive and hazard specific (Franco & Franco, 2001:1382; Friis, 2016:34).

2.5.6.2 Occupational health and safety during the first and second industrial revolutions

The advent of the industrial revolution, which began in Britain in the second half of the 18th century and spread to Europe and the USA during the first half of the 19th century introduced new occupational hazards to the workplace that caused a spike in occupational injuries and illnesses in a number of sectors such as cotton, railways, and mines (Friis, 2016:44; Reese, 2017:9-10; ILO, 2019:7). These hazards included poorly designed and unsafe machines, toxic materials, child labour, abuse from superiors, long working schedules, overcrowding, and dirty and poorly ventilated factories (Safety Risk, 2013; Eves, 2014; Friis, 2016:44; Reese, 2017:9-10; ILO, 2019:7; White, 2019:2).

The occupational challenges of industrialisation necessitated the development of various health and safety laws targeting specific industries. For example, in an effort to alleviate the rapid occupational accidents and diseases in cotton mills, the British Government enacted the first ever health and safety Act, the Health and Morals of Apprentices Act of 1802 (Burriesci, 2001; Safety Risk, 2013; Lahiri-Dutt, 2019:1; White, 2019:2). Other laws included the Factory Act of 1833 and Britain's Mines Act of 1842 (Burriesci, 2001; Safety Risk, 2013; Lahiri-Dutt, 2019:1; White, 2019:2). Among other things, the said laws provided guidelines for managing OHS in workplaces which included the following: cleaning and ventilating factories; holding employers accountable for injuries to workers; providing accommodation for workers; abolishing child labour; recording and reporting accidents; and limiting the duration of work to 12 hours per day (Burriesci, 2001;

Safety Risk, 2013; Lahiri-Dutt, 2019:1; White, 2019:2). For example, in Britain, the Factory Act of 1833 and the Mines Act of 1842 abolished child labour in factories and mines, respectively (Safety Risk, 2013; Lahiri-Dutt, 2019:1; White, 2019:2). Unfortunately, these laws were ineffective due to a number of factors including poor enforcement, inadequate inspectors, and the inability by workers to follow rules (Burriesci, 2001; Reese, 2017:10; White, 2019:2). In addition, these laws were reactive and industry specific (Burriesci, 2001; Reese, 2017:10; White, 2019:2).

2.5.6.3 Occupational health and safety post World War One

According to the ILO (2019a:18), the global OHS situation worsened in the wake of World War One (WW1) due to massive production of military weapons, which introduced new hazards such as explosives, chemical substances, biological agents, among others. Just like the previous eras, this era was characterised by poor OHS due to poor OHS culture and lack of competent OHS personnel (International Atomic Energy Agency [IAEA], 2008:3-4; Sawe, 2017; Britannica, 2022). For example, the Chernobyl disaster of 26th April 1986, the biggest nuclear disaster in history, was caused by poor OHS culture and inadequate health and safety training among workers (IAEA, 2008:3-4; Britannica, 2022).

The OHS crisis that characterised the world in the wake of WW1 intensified international efforts to manage OHS (ILO, 2019:8). Perhaps the most significant international effort was the establishment of the ILO in 1919 to improve the global status of OHS by developing guidelines for protecting workers from occupational hazards (ILO, 1923:332; ILO, 2019:8-9; Ziegerhofer, 2020). For instance, during its first session of the International Labour Conference (ILC), the ILO developed, among others, the *White Phosphorus Recommendation, 1919 (No. 6)*, which was aimed at protecting workers around the world from the effects of white phosphorus (ILO, 2019:9). Unfortunately, OHS efforts during this period were still reactive and specific to hazards and industries (Burriesci, 2001; Safety Risk, 2013; Eves, 2014). As such, they could not adequately protect workers from occupational hazards that were constantly changing due to massive industrialisation and continuous manufacturing of weapons, among others (Eves, 2014; White, 2019:2).

2.5.6.4 Occupational health and safety post World War Two

Arguably, the most significant development in OHS after World War Two (WW2) is Britain's Health and Safety at Work etc. Act of 1974 in the second half of the 20th century, which was enacted to provide guidelines on how to protect workers from occupational hazards in all workplaces (ILO, 2011a:4; ILO, 2019:20). This followed recommendations by the Robens Committee of 1972 to favour proactive and holistic legislation over reactive and piecemeal legislation due to the latter's enforcement and overlapping challenges caused by fragmentation (Robens Report, 2006:31). Among other things, the Health and Safety at Work etc. Act of 1974 required employers to develop

a written OHS policy to provide guidelines on ensuring that the workplace is healthy and safe (Health and Safety at Work etc. Act of 1974). These guidelines include, duties and responsibilities of employers and workers, hazard identification procedures, procedures for setting and achieving OHS objectives, among others (Health and Safety at Work etc. Act of 1974). The Act stimulated interest in the development of proactive and comprehensive international OHS guidelines (ILO, 2009b:4-5). For example, in 1981, the ILO developed Convention 155 on Occupational Safety and Health, which provides guidelines for developing national and enterprise level OHS policy, among others (ILO, 1981).

Presently, the management of OHS at enterprise level is based on developing an OHS policy to provide guidelines on how occupational hazards and risks should be alleviated. For instance, all international standards for health and safety management such as *ILO-OSH 2001* and *ISO 45001:2018* are anchored on the development of a proactive and comprehensive OHS policy, which is appropriate for an organisation's size, type, and nature (Taylor *et al.*, 2004:65; ILO, 2009a:6; ANSI, 2017:5; ISO, 2018:9). Additionally, in countries such as Britain, it is a legal requirement for employers to establish and implement an OHS policy (Health and Safety at Work etc Act of 1974).

Due to the complexity of OHS, best practices in modern-day OHSM recommend the application of systems thinking to health and safety management. As such, the aforementioned international standards are based on the PDCA model, which allows organisations to develop an OHSMS that incorporates systems thinking to the alleviation of occupational hazards and risks (ILO, 2003:2-4; ILO, 2011a:4; ILO, 2019:20-21). Among other things, the PDCA model promotes positive health and safety culture and continual improvement. The PDCA model is discussed in the next section.

2.5.7 Managing health and safety

As discussed in the previous section, the management of OHS has evolved from reactive hazard and sector specific measures to proactive and comprehensive mechanisms. Presently, global practice in OHS management (OHSM) is anchored on the application of the systems approach to efforts of alleviating occupational hazards and risks (ILO, 2011a:3). Subsequently, best practice in present-day OHS management recommends the development of an OHSMS for organisations seeking to make their workplaces healthy and safe (ILO, 2009a:5; ISO, 2018:vii).

According to the ILO (2011:3), *“an OHSMS is a logical toolbox that is flexible and can be tailored to the size and activity of the organisation and be focused on general or specific hazards and risks associated with such activity.”* An OHSMS can also be defined as *“a set of interrelated or interacting elements to establish OHS policy and objectives, and to achieve those objectives”* (ILO, 2009b:19). Perhaps the most detailed definition of an OHSMS is that it is *“the integrated set of organisational elements involved in the continuous cycle of planning, implementation,*

evaluation, and continual improvement, directed toward the abatement of occupational hazards in the workplace. Such elements include, but are not limited to, organisations' OHS relevant policies, goals and objectives, decision-making structures and practices, technical resources, accountability structures and practices, communication practices, hazard identification practices, training practices, hazard controls, quality assurance practices, evaluation practices, and organisational learning practices" (Robson, Clarke, Cullen, Bielecky, Severin, Bigelow, Irvin, Culyer, Mahood, 2005:19).

The application of systems thinking to OHSM seeks to provide mechanisms to continuously examine and improve the effectiveness of OHS guidelines in an organisation in order to ensure that work-related hazards are eliminated or minimised. OHSM allows organisations to continuously monitor the OHS situation and decide promptly on what needs to be done to ensure that the workplace is healthy and safe (ILO, 2011a:3).

2.5.7.1 The plan, do, check, act model and health and safety management

Presently, the PDCA model, presented below in Figure 2.2 as adopted from Hughes and Ferrett (2016:44), is the world's preferred model for managing OHS at enterprise level. As such, the world's international standard for managing health and safety at enterprise level, the *ISO 45001:2018*, is based on the PDCA model. Additionally, the model is also used by other international standards such as *Quality Management Systems-Requirements (ISO 9001:2015)* and *Environmental Management Systems-Requirements with guidance for use (ISO 14001:2015)* (ISO, 2015a; ISO, 2015b). Given that the model is used by several systems that may be relevant to an organisation, it makes integrated management easier. As such, some organisations decide to develop an integrated system for health, safety, environment, and quality (McKinnon, 2020:12). According to Kymal *et al.* (2015:168), integrated management improves efficiency by enabling an organisation to achieve objectives of different management systems simultaneously. In Zambia, organisations like ZESCO Limited have developed an integrated safety, health, environment, and Quality (SHEQ) management system (ZESCO, 2022). However, other organisations still manage OHS separately (McKinnon, 2020:12). Below is a discussion of the components of the PDCA model.

2.5.7.1.1 Plan

This stage involves developing plans for how the organisation is going to make the workplace healthy and safe (ILO, 2011a:3; OSHA, 2013:3; Jenkins, 2022). *"The organisation must determine and assess OHS risks, OHS opportunities and other risks and other opportunities, establish OHS objectives and processes necessary to deliver results in accordance with the organisation's OHS policy"* (ISO, 2018: vii). It is at this stage that the OHS policy is developed to provide guidelines on how the organisation is going to alleviate occupational hazards and risks.

2.5.7.1.2 Do

At this stage, the processes that were planned for in stage one are implemented (Constantine, 2018:7; ISO, 2018: vii). It is strongly recommended that workers must actively participate in the implementation process as they are the ones who understand their work environment better (Hughes & Ferret, 2016:46; Constantine, 2018:7). This stage also involves defining and allocating responsibilities to employers, managers, supervisors, and workers (Hughes & Ferrett, 2016:46; ISO, 2018:15-17). Communication within the organisation and with external partners is very important at this stage as it promotes continual improvement (Hughes & Ferrett, 2016:46).

2.5.7.1.3 Check

This stage is about *“monitoring and measuring activities and processes with regard to the OHS policy and OHS objectives, and report the results”* (ISO, 2018: vii). It is concerned with checking if plans are being successfully implemented and if they follow established standards (ILO, 2009b:13-17; ISO, 2018:19-20; Williams, 2020:18). Checking is a mixture of both active and reactive assessments with the former focused on continuously examination key OHS activities and the latter involving reactions to information generated and compiled about OHS incidents in an organisation such as accidents, injuries, illnesses, and near misses (ILO, 2009b:13-17; Hughes, 2016:46).

2.5.7.1.4 Act

The acting stage involves taking action to correct any identified weaknesses and non-conformities of the OHSMS (OSHA, 2013:3; Constantine, 2018:7; ISO, 2018: vii; Williams, 2020:18). Taking corrective action promotes continual improvement as it triggers the recasting of an organisation's OHS aims, objectives, and standards (OSHA, 2013:3; McKinnon, 2015:26; Hughes & Ferrett, 2016:46). There must be a clearly defined time-frame within which the recommendations for improvement must be implemented and it must be followed by constant monitoring (ILO, 2009a:17-18; ISO, 2018:22-23).



Figure 2-2: PDCA model (Source: Hughes & Ferrett, 2016:44)

The PDCA model is the basis on which the OHS policy for CHAU will be developed. This means that the said policy will be developed with the intention of eventually developing an OHSMS for the University that is based on the PDCA model. Therefore, the content for the OHS policy for CHAU should incorporate the key recommendations of the PDCA model.

2.6 THEORETICAL FRAMEWORK OF THE THESIS

The theoretical framework for this study is anchored on the following key assumptions of the post-NPM models; pluralism in policy formulation, control of public policies by central government, digitalisation of administrative processes, and open systems approach in public policy development. Specifically, the theories that will guide this study are as follows: elite theory, group theory, institutional theory, public choice theory, and systems theory. The elite and group theories have been chosen because they inform the study that a policy development process can be

influenced by groups who have more influence. Therefore, the two theories will help the researcher to ensure that the development of the OHS policy for CHAU considers the interests of all the relevant stakeholders to ensure that it does not only reflect the preferences of top management at the University. The institutional theory has been chosen because it informs the study that the content of public policy is influenced by the practices and structures in institutions. Therefore, the researcher will ensure that the development of CHAU's OHS policy considers the important existing practices and organisational structures. The public choice theory is also important to this research because it reveals that individuals seek to prioritise selfish interests when developing public policy. The researcher will, therefore, ensure that focus is not placed on individual interests when developing CHAU's OHS policy. The systems theory has been chosen because it explains that public policies are a product of the interaction between the organisations and their environment. An organisation's environment includes both the local and international environments. The local environment includes national laws and policies, while the international environment includes international standards for best practice in OHS, among others. As such, during the development of CHAU's OHS, the study will consult local and international practices in occupational health and safety management (OHSM).

The theoretical framework will, therefore, be applied as follows: firstly, the key stakeholders from CHAU and other relevant organisations will be consulted to establish an appropriate OHS policy for the University. These will mainly include the managers, workers and their representatives, students and their representatives, and public officials from relevant government ministries, departments and institutions. This is in tandem with the assumptions of the elite theory, rational choice theory, and group theory. Secondly, based on the assumptions of the institutional theory, the study will identify the existing OHS practices and organisational structures at CHAU that should be incorporated in the OHS policy for the University. Thirdly, in keeping with the assumptions of the systems theory, the study will probe local and international practices in the design of enterprise level OHS policy. This will provide information on how to develop and design the OHS policy for CHAU. Fourthly, the development of CHAU's OHS policy will be based on the PDCA model. Presently, the said model is globally regarded as the best OHS management system.

2.7 CHAPTER SUMMARY

This chapter has attended to the first research objective, which is to *“review the theoretical underpinnings relevant for the development of public policy.”* The chapter has reviewed the theory of public administration, which has shown how the field has evolved overtime. This has shown how the development of public policies has evolved from traditional public administration to post-NPM. The chapter has also reviewed the theories of public policy. These have provided different factors that influence the formulation of public policy. These will be useful in guiding the researcher

on how best to collect information that will be used to develop an OHS policy for CHAU. Furthermore, the chapter has also reviewed the nature of OHS, its evolution, and the globally recommended model for protecting the health and safety of workers and other individuals.

The next chapter reviews best practices in the structure and content of enterprise level OHS policies. This is important as it will guide the study on how to structure and populate the OHS policy for CHAU.

CHAPTER 3 REVIEW OF BEST PRACTICES IN THE DESIGN OF ENTERPRISE LEVEL OCCUPATIONAL HEALTH AND SAFETY POLICY

3.1 INTRODUCTION

Chapter two reviewed relevant theories for public policy formulation and provided an overview of occupational health and safety (OHS). This chapter addresses the second research objective by answering the question *“what are the best practices in designing an enterprise level OHS policy?”* It does so by reviewing literature relating to the development of a general enterprise level health and safety policy, and then health and safety policies as developed by universities in selected countries within and outside the African continent. This chapter is very important to this study as it forms the basis on which this study determined what to take into consideration when developing an OHS policy for Chalimbana University (CHAU). Additionally, the chapter was necessitated by the systems theory, which assumes that an organisations policies are influenced by factors in its external environment. As such, the chapter sought to review international best practices to establish factors that would be relevant to the development of an OHS policy for CHAU. This chapter is divided into the following sections: Introduction, defining an OHS policy, justification for an OHS policy, implementing an OHS policy, general design of an enterprise level OHS policy; general design of a university OHS policy; synthesis of the literature, and chapter summary.

3.2 DEFINING AN OCCUPATIONAL HEALTH AND SAFETY POLICY

An OHS policy has been defined differently by different writers, but all definitions emphasise that it is the personification of management’s commitment to alleviating occupational risks and hazards in any given organisation (ISO, 2018:9; Baksh, 2019; IOSH, 2021; Health & Safety, 2022). According to Baksh (2019), *“an OHS policy is an employer’s written commitment to the health and safety of both their employees and their workplace.”* For the Institute of Occupational Safety and Health (IOSH) (2021), an OHS policy is *“a document outlining an organisation’s commitment and approach to managing health and safety in the workplace.”* In the same vein, the Health and Safety (2022) postulate that an OHS policy is an organisation’s written commitment to health and safety by outlining procedures for managing risks and workplace injuries and illnesses. The ISO (2018:27) accentuates the foregoing definitions by contending that an OHS policy *“is a set of principles stated as commitments in which top management outlines the long-term direction of the organisation to support and continually improve its OHS performance.”* In view of the foregoing, this study defines an OHS policy as *“the embodiment of management’s acceptance of the responsibility to keep the workplace healthy and safe by committing to developing mechanisms for eliminating and/or controlling occupational hazards and risks in their organisation.”*

3.3 JUSTIFICATION FOR AN ENTERPRISE LEVEL OCCUPATIONAL HEALTH AND SAFETY POLICY

There are a number of reasons why an organisation should develop an OHS policy. The following are just some of them:

Legal requirement: In a number of countries, it is a legal requirement for every organisation that employs a certain number of people to develop an OHS policy (Hughes & Ferrett, 2016:50-51). For example, in Britain, employers with five or more workers are legally mandated to develop, implement, and regularly review a written OHS policy (Hughes & Ferrett, 2016:51). Therefore, an OHS policy enables an organisation to meet its legal requirements (ISO, 2018:9).

Management commitment: An OHS policy demonstrates that management is committed to ensuring that the workplace is healthy and safe (Cockburn, 2012:18; Reese, 2017:37; Perez, 2019:49; McKinnon, 2020:73-74). It is written proof that management has commitment to providing adequate resources, such as finances and skilled workers, that are required to alleviate occupational hazards and risks (Cockburn, 2012:18; Reese, 2017:37; Perez, 2019:49; McKinnon, 2020:73-74).

Financial management: A good OHS policy helps organisations to reduce expenses arising from avoidable injuries and illnesses (Truce, 2019; Berns, 2022; Merin, 2022). This means that the organisation will not incur costs in form of insurance claims, lawsuits, and fines that can drain an organisation's financial resources (Truce, 2019; Berns, 2022; Merin, 2022).

Job satisfaction: Developing an OHS policy shows commitment from management, which in turn, boosts employee confidence in the organisation (McKinnon, 2020:73-74; Berns, 2022; Merin, 2022). When employees believe that their employers care about their well-being, they are likely to be satisfied with their jobs (Berns, 2022; Merin, 2022).

Enhanced reputation: Establishing, implementing, and maintaining an OHS policy helps to shape public perception about how seriously an organisation takes OHS seriously (Berns, 2022; Merin, 2022). This puts the organisation in good light with current and prospective partners (Berns, 2022; Merin, 2022). Governments, contractors, and other organisations are more likely to be willing to partner with an organisation that prioritises OHS (Berns, 2022; Merin, 2022).

3.4 DEVELOPING AN ENTERPRISE LEVEL OCCUPATIONAL HEALTH AND SAFETY POLICY

As already stated, developing an OHS policy is widely regarded as the foundation of any organisation's efforts to alleviate occupational hazards and risks. The following are the factors that should characterise the development of an OHS policy for an organisation:

3.4.1 Management commitment

For any organisation to successfully protect workers from occupational accidents and diseases, there must be strong commitment from the top management (International Labour Organisation [ILO], 2009a:5; Reese, 2016:15; International Organisation for Standardisation [ISO], 2018:9). This is because management is responsible for spearheading the OHS culture in any given organisation and are the custodian of the resources needed to invest in the management of OHS (Hughes & Ferrett, 2016:21-22; ISO, 2018:9). Best practices in OHS show that the best way an organisation's management can demonstrate commitment to OHS is by developing an appropriate OHS policy (ILO, 2009a:5-6; Hughes & Ferrett, 2016:21-22; ISO, 2018:9). For example, international OHS standards such as *the ILO-OSH 2001* and *ISO 45001:2018* postulate that the management of any organisation, regardless of its size, type, and nature of activities should conjointly develop an OHS policy with employees and their representatives (ILO, 2009a:6; ISO, 2018:9-10). An OHS policy should not only focus on protecting workers, but also other people who come in contact with the organisation such as clients, contractors, and visitors (ISO, 2018:12). As such, once developed, an OHS policy should be communicated promptly to all members of the organisation and made easily accessible to all interested parties within and outside the organisation (ILO, 2009a:6; ISO, 2018:9-10). In order to demonstrate that an OHS policy is integral to the organisation, it should be branded with appropriate organisational insignia such as a logo, among other things.

3.4.2 Initial status review

The development of the first-ever OHS policy for any organisation must be preceded by an initial status review. The aim of the initial status review is to establish the prevailing health and safety situation in an organisation (Labour Department, 2002:18). Essentially, it seeks to answer the question, *how is the organisation currently managing health and safety in the absence of an OHS policy?* The initial status review must be a consultative process incorporating inputs from management, workers and their representatives, and other relevant internal and external stakeholders (ILO, 2009a:10). At the very least, the said review must do the following: identify all OHS legal obligations of the organisation; identify and assess potential risks and hazards; and determine plans to alleviate identified risks (Labour Department, 2002:18; ILO, 2009a:10). The findings of the initial status review should be used to determine how the organisation compares

to its legal obligations and best practices in health and safety management (Labour Department, 2002:19). The legal obligations represent the bare minimum that an organisation is required to meet. On the other hand, the best practices determine the direction an organisation must take to continuously improve its OHS performance. Finally, the findings of the review must be documented and used to develop an OHS policy and its management system (ILO, 2009a:10).

3.5 IMPLEMENTING AN OCCUPATIONAL HEALTH AND SAFETY POLICY

To implement an OHS policy, management must put in place an OHS management system (OHSMS). There are a number of international, regional, and national OHSMS that organisations can use to implement their OHS policies, but the *ILO-OSH 2001* and *ISO 45001* are considered the epitome of global best practices in managing OHS (ILO, 2004:2; ILO, 2009b:13; ILO, 2012:13; IOSH, 2015:2; ISO, 2018: viii; McKinnon, 2020:25; Krstić, Rađenović & Živković, 2022:5). In countries like Zambia where there is no legal mandate to adopt a specific OHSMS, employers are at liberty to put in place any management system that makes it easier for them to meet their legal and other obligations. For example, some organisations in Zambia have been using the standards developed by the National Occupational Safety Association (NOSA) of South Africa (Republic of Zambia, 2012a:xi).

3.6 GENERAL DESIGN OF AN ENTERPRISE LEVEL OCCUPATIONAL HEALTH AND SAFETY POLICY

In order to establish the general design of an enterprise level OHS policy, the study reviewed the following: international OHS standards and relevant literature on the design of enterprise level OHS policy.

3.6.1 Review of international occupational health and safety standards

In line with the assumptions of the systems theory, that the development of public policies is influenced by an organisation's external environment, this section seeks to establish the general structure of an enterprise level OHS policy by reviewing international standards on the management of OHS. This is because international standards provide the basis on which countries and organisations can adopt best practices in OHS management. As earlier indicated, there are a number of international standards that have been developed to guide organisations in the management of OHS. These standards are voluntary and are designed to promote best practices in OHS management. This enables organisations to reach optimum management in alleviating occupational hazards and risks. International standards on OHS posit that developing an OHS policy is the foundation of all OHS mitigation efforts by any organisation regardless of its size, type and nature (ILO, 2009a:6; Hughes & Ferrett, 2016:44; ISO, 2018:9). While there are a

number of standards, there approach to OHS management is generally similar. As such, this study will only review two, the *Guidelines on occupational safety and health management systems (ILO-OSH) 2001* and *Occupational health and safety management systems-requirements with guidance for use (ISO 45001:2018)*. The former was chosen because it was developed by the world's leading international organisation on labour matters, including OHS. The latter was chosen because it is regarded as the world's international standard on OHS management.

3.6.1.1 ILO-OSH 2001

The *ILO-OSH 2001* standard was developed by the ILO in 2001 to provide guidelines for managing OHS at national and organisational levels (ILO, 2009a). At the core of OHS management at both the national and enterprise levels, the *ILO-OSH 2001* places the development of an OHS policy (ILO, 2009a). The standard does not provide the design for an enterprise level OHS policy. However, it clearly stipulates what the policy should address. According to the ILO (2009a:6), the *ILO-OSH 2001* recommends that any enterprise level OHS policy should take the following into consideration:

Consultation and participation: The development of an enterprise level OHS policy should be characterised by meaningful consultation between employers and employees and their representatives. In addition, employers should encourage employee participation by creating platforms such as OHS committees (ILO, 2009a:6).

Tailor-made: An enterprise level OHS policy should be specific to the organisation. It should be appropriate to the organisations hazards and risks, legal requirements, organisational structure, and nature of its activities, among others (ILO, 2009a:6).

Concisely written: The OHS policy for an organisation should be in written form. It should be written in a language that everyone in the organisation can easily understand (ILO, 2009a:6).

Validation: The OHS policy for enterprise should be dated and signed by the senior most officer in the organisation. This confirms management's commitment to safeguarding the health and safety of workers at all times. The validating officer is also the accountable officer (ILO, 2009a:6).

Communication and accessibility: An enterprise level OHS policy should be effectively and efficiently communicated to all relevant stakeholders internal and external to the organisation. Furthermore, it should be easily accessible to everyone within and outside the organisation (ILO, 2009a:6).

Regular review: An OHS policy for an organisation should be reviewed regularly to ensure that it is updated regularly in line with changes in laws and nature of hazards, among others (ILO, 2009a:6).

Legal compliance: An enterprise OHS policy should seek to fulfil the organisation's legal requirements (ILO, 2009a:6).

Integrated management: Given that most organisations have other management systems in place, an enterprise OHS policy should promote integrated management by adopting an OHSMS that is compatible with other management systems such as the plan, do, check, act (PDCA) model (ILO, 2009a:6).

Scope: An enterprise OHS policy should provide a scope of individuals and locations covered under its provisions. Ideally, an OHS policy should cover all workers and all individuals who come in contact with the organisation. Additionally, an OHS policy should cover all locations under the control of the organisation, including those where workers are using to perform official duties (ILO, 2009a:6).

Arrangements: An enterprise OHS policy should establish arrangements for the following: OHS training; emergency preparedness; and OHS consultation and participation (ILO, 2009a:6).

3.6.1.2 ISO 45001:2018

The ISO 45001:2018 was developed in 2018 to replace the *Occupational Health and Safety Assessment Series (OHSAS) 18001:2007*. It was developed by the ISO to specify “*requirements for an occupational health and safety (OH&S) management system, and gives guidance for its use, to enable organisations to provide safe and healthy workplaces by preventing work-related injury and ill-health, as well as by proactively improving its OH&S performance*” (ISO, 2018:1). Just like the *ILO-OSH 2001*, the *ISO 45001:2018* considers the development of an OHS policy as the foundation of any organisation's efforts to alleviate occupational hazards and risks. Additionally, the ISO 45001:2018 does not also provide a design for an enterprise level OHS policy. However, it stipulates what should be highlighted in the policy. The following are the factors that should be highlighted by the policy:

Management commitment: According to the ISO (2018:9), an enterprise level OHS policy should be supported by the top management of the organisation. The policy must clearly state that management is committed to alleviating occupational hazards and risks.

Tailor-made: Every organisation should develop an OHS policy that is tailor-made to its size, purpose, and internal and external context (ISO, 2018:9). Additionally, an enterprise level OHS should respond to the hazards and risks prevailing in the organisation. Furthermore, an organisation's OHS policy should consider all possible opportunities for enhancing the management of OHS (ISO, 2018:9).

Objectives: An organisations OHS policy should have OHS objectives that are measurable. In addition, the objectives should be communicated to members of the organisation, and they should be regularly updated (ISO, 2018:14).

Commitments: The OHS policy for an organisation should demonstrate commitment to the following: fulfilment of legal requirements; alleviation of hazards and risks; continual improvement; and collaboration between employers and employees through effective consultation and participation in OHS management (ISO, 2018:9).

Communication: An enterprise OHS policy should be communicated to all relevant stakeholders within the organisation. Furthermore, it must be easily accessible to all internal and external stakeholders that seek to have access to it (ISO, 2018:10).

The review of the international standards on OHS is important because it has provided valuable information pertaining to a number of factors that should be considered when developing and designing an enterprise level OHS policy such as management support, regular review, consultation and participation, and effective communication of OHS information, among others. Although the international standards have provided valuable information for developing an OHS policy, they have not provided a structure for the design of an enterprise OHS policy. In addition, the information provided by the standards is too broad to be used to develop and design an OHS policy for CHAU. As such, this study needed to generate appropriate information that can be used to design an OHS policy that is specific to CHAU by collecting relevant primary and secondary data.

3.6.2 Review of literature on the design of enterprise level occupational health and safety policy

Having reviewed, the international standards on OHS management in relation to the design of enterprise level OHS policies, this section reviews relevant literature pertaining to the design of an organisation's OHS policy. This is in keeping with the assumptions of the systems theory, that external factors play a major role in the development of an organisation's OHS policy. A review of the literature shows that there is no standard structure of an enterprise level OHS policy. As such, the structure of an organisation's health and safety policy is generally determined by several factors including size, nature, and type (ILO, 2009a:6; ISO, 2018:9). Be that as it may, an enterprise level OHS policy should generally have the following three components: health and safety policy statement; organisation of health and safety; and arrangements for health and safety (Taylor *et al.*, 2004:65; Stranks, 2006:197; Hughes & Hughes, 2008:47; Hughes & Ferrett, 2016:51; Reese, 2016:425; McKinnon, 2020:53; CCOHS, 2021, FFVA Mutual, 2022; Ubongeh, 2022). While the aforesaid components may form the common structure for an enterprise level OHS policy, specific details under them may vary from one organisation to another (ILO, 2009a:6;

ISO, 2018:9). For example, arrangements needed to manage risks in a bank may be different from those needed in a mine or university. Therefore, each organisation should develop its own OHS policy and avoid copying from other organisations. The aforesaid three main components of an enterprise level OHS policy are discussed below.

3.6.2.1 Health and safety policy statement

According to Hughes and Ferrett (2016:51-52), the health and safety policy statement, also known as the statement of intent, is sometimes erroneously referred to as the health and safety policy. A health and safety policy statement is the section of an OHS policy, which personifies management's commitment to health and safety, and states how the organisation will manage occupational hazards and fulfil its legal and other requirements (Taylor *et al.*, 2004:65; Reese, 2016:425; ISO, 2018:9). Generally, an OHS policy statement should state the following:

3.6.2.1.1 Purpose of the policy

This states the reason(s) why the policy has been developed (FFVA Mutual, 2022). Generally, the purpose of any OHS policy is to provide guidelines on how health and safety will be managed in an organisation (Aston University, 2021:3; FFVA Mutual, 2022). For example, the purpose of the Aston University OHS policy is to provide guidelines *“for implementing high standards of Occupational Health and Safety”* and to illustrate the commitment that the University *“places on the health, safety and well-being of staff, students and visitors”* (Aston University, 2021:3).

3.6.2.1.2 Scope of the policy

A policy statement should determine the scope of the policy by clearly indicating the individuals and locations that are covered by the policy and those that are not (ISO, 2018:30; FFVA Mutual, 2022). People covered by the policy may include workers, students, visitors, and contractors. Locations covered by the policy may include those under the control of the organisation, and those not under the organisation's control, but are being used for official duties by its workers (ISO, 2018:30; FFVA Mutual, 2022). For example, the scope of the OHS policy for the University of Pretoria (2020:2) *“applies to all faculties and academic departments, all professional service divisions and sections, as well as permanent and contract employees, students, contractors, and visitors to all University of Pretoria premises.”*

3.6.2.1.3 Statement of intent

This is an expression of management's commitment to ensuring that the workplace is healthy and safe at all times (Hughes & Hughes, 2008:47; McKinnon, 2020:55). According to international OHS standards provided by the ILO and ISO, the statement of intent should state the management's commitment to prevent occupational accidents and diseases, fulfil the organisation's legal mandate, eliminate occupational hazards, promote OHS improvement, and involvement of workers and their representatives in OHS management through OHS committees, among others (ILO, 2009a:6; ISO, 2018:9). Hughes and Ferrett (2016:52) contend that in order to ensure that the statement of intent is easily understood, it must be brief or presented in form of short statements and written in a language(s) that everyone in the organisation can understand easily. For example, the statement of intent for MacEwan University reads as follows: *"MacEwan University is committed to providing a safe and healthy work and learning environment. In support of this commitment, the University will maintain an integrated health, safety, and environment programme that fulfils legislative requirements and promotes a culture of health, safety, and environmental responsibility"* (MacEwan University, 2017:1).

3.6.2.1.4 Policy objectives

The OHS objectives of the organisation must be clearly stated in the policy statement (2009a:11; Hughes & Ferrett, 2016:52-53). Hughes and Ferrett (2016:52) argue that objectives are measurable and are likely to change with every policy review. According to the ILO (2009a:11), objectives must be appropriate to the organisation's size, type, and nature, conjointly developed by management and workers, in line with national laws, and centred on improving OHS performance, among others. Furthermore, Hughes and Ferrett (2016:53) state that objectives must be simple, measurable, achievable, realistic and time-bound (SMART). Hughes and Ferrett (2016:53) contend that when developing OHS objectives, the organisation can use a top-down approach, bottom-up approach, or a mixture of both.

3.6.2.1.5 Policy validation

Given that the responsibility for health and safety in an organisation ultimately rests on the employer(s), the policy statement should be dated and signed by the senior most officer such as the Chief Executive Officer (CEO) or Vice-Chancellor (VC) to give the policy credence and demonstrate management's acceptance of the responsibility to keep the workplace healthy and safe at all times (Taylor *et al.*, 2004:65; Stranks, 2006:197; Hughes & Hughes, 2008:47; Hughes & Ferrett, 2016:51; Reese, 2016:425; McKinnon, 2020:53; CCOHS, 2021; Ubongeh, 2022).

3.6.2.1.6 Policy review period

The policy statement should indicate the review period of the policy (Hughes & Ferrett, 2016:52). Given that factors affecting OHS such as hazards and risks, legal requirements, and opportunities are constantly changing, organisations should regularly review their OHS policies to keep abreast with the changes (FFVA Mutual, 2022). The review period may vary from one organisation to another. For example, the OHS policy review cycle for the University of Canberra (2021:1) and Oregon State University (2021:8) is two years and three years, respectively.

3.6.2.2 Organisation of health and safety

After the OHS policy statement, most enterprise level OHS policies present the organisation of health and safety. As earlier stated, top management is ultimately responsible for OHS in an organisation and must take the leading role in ensuring that the workplace is healthy and safe at all times (Reese, 2016:347; ISO, 2018:9). This can be done through spearheading the development and implementation of an OHSMS; provision of resources such as finances and skilled labour necessary for the effective management of OHS; effective and regular communication on OHS matters; and integrating OHS into the overall management system of the organisation (ILO, 2009a:6-7; ISO, 2018:9-11). Notwithstanding the foregoing, top management delegates some OHS functions accompanied by commensurate authority to lower levels of the organisation to ensure that everyone working there is accountable and responsible for OHS functions under their control (ILO, 2009a:7; CCOHS, 2021).

Therefore, the purpose of this section of the OHS policy is to depict how OHS responsibilities are allotted at all levels of the organisation (Hughes & Ferrett, 2016:55; CCOHS, 2021). It defines the organisational structure responsible for the management of OHS by stating the names, positions, and specific responsibilities of the individuals and groups. These may include directors, senior managers, supervisors, and health and safety committees, among others (Hughes & Ferrett, 2003:31; Ridley, 2004:37; Hughes & Hughes, 2008:4; Hughes & Ferrett, 2016:55). Hughes and Ferrett (2016:55) state that there are a number of fundamental functions that should be allocated at various levels of the organisation. These include OHS training, hazard identification and risk assessment, OHS monitoring and auditing, and accident investigation and report. In a number of countries including Australia, Canada, England, South Africa, US, and Zambia, OHS responsibilities for employers and workers are prescribed by the law. For example, in Zambia, employers are required to *“provide plant and systems of work that are, so far as is reasonably practicable, safe and without any risks to human health and maintain them in that condition”* (Occupational Health and Safety Act of 2010). In the UK, workers are required *“to take reasonable care for the health and safety of himself and of other persons who may be affected by his acts or*

omissions at work” (Health and Safety at Work etc Act of 1974). The size of the structure responsible for managing OHS will differ from one organisation to the other due to factors such as purpose, size, and nature. Where possible, some positions can be created to perform specific OHS functions. For example, Hughes and Ferret (2016:55) postulate that, whereas some OHS experts such as chemical analysts may be employed on full-time basis in a large organisation, they may be employed on part-time in a small one.

The definition of an OHS structure establishes the lines of communication and ensures that OHS responsibilities are incorporated in the day-to-day operations of the organisation making OHS management a continuous process rather than a one-off activity (ILO, 2009a:7; ISO, 2018:10-11). In order for the OHS management structure to be effective, there must be a clear chain of command, effective communication and clarity on responsibilities, enhanced OHS ability through training, and/or certification (Hughes & Ferret, 2016:55; CCOHS, 2021). Furthermore, Hughes and Ferrett (2016:55) contend that the job descriptions of those performing OHS functions must not overlap.

3.6.2.3 Arrangements for health and safety

This section provides practical processes and procedures of how the policy’s objectives and commitments will be actualised. These processes and procedures will differ from one organisation to another due to a number of factors such as size, type, and nature of the organisation. All the processes and procedures should be in line with the legal and other requirements guiding OHS management in the organisation. As such, the policy should state the specific health and safety laws and regulations that will guide the management of OHS in the organisation. For example, the management of OHS at CHAU will be guided by, among others, the following laws: Workers Compensation Act 10 of 1999; Occupational Health and Safety Act of 2010; Employment Code Act of 2019; Higher Education (Amendment) Act of 2021. Furthermore, the OHS policy should state the OHS facilities provided by the organisation such as first aid kits, clean drinking water, bathrooms, ambulance, and health centre. At the very least, organisations should provide processes and procedures for the following: hazard identification and risk assessment, emergency preparedness and response, training, consultation and involvement of workers, accident investigation and reporting, internal and external communication, and procurement and outsourcing. These are discussed below.

3.6.2.3.1 Hazard identification and risk assessment

Given that the whole essence of an OHS policy is to alleviate occupational hazards and risks, it is imperative for the policy to state proactive and continuous processes and procedures for

identifying hazards and assessing their risks (ILO, 2009a:11). The identification of hazards must focus on the work methods, infrastructure, machinery, materials, and human factors, among others (ISO, 2018:12). The ILO (2009a:11) recommends that identified hazards and risks should be countered by appropriate preventive and protective measures using the hierarchy of controls adopted from NIOSH (2022) as presented in Figure 3.1 below. According to ISO (2018:18), the following are the hierarchy of controls presented in order of effectiveness:

Elimination: This is considered as the most effective action because it involves eliminating a hazard from the workplace completely.

Substitution: If a hazard cannot be eliminated from the workplace completely, the next best step is to substitute it with a less hazardous one.

Engineering controls: This involves the use of engineering controls and reorganisation of work.

Administrative controls: This involves the use of administrative controls such as training.

Personal Protective Equipment (PPE): This involves the use of PPE such as hard hats, safety boots, safety goggles, safety gloves, and face masks, among others.

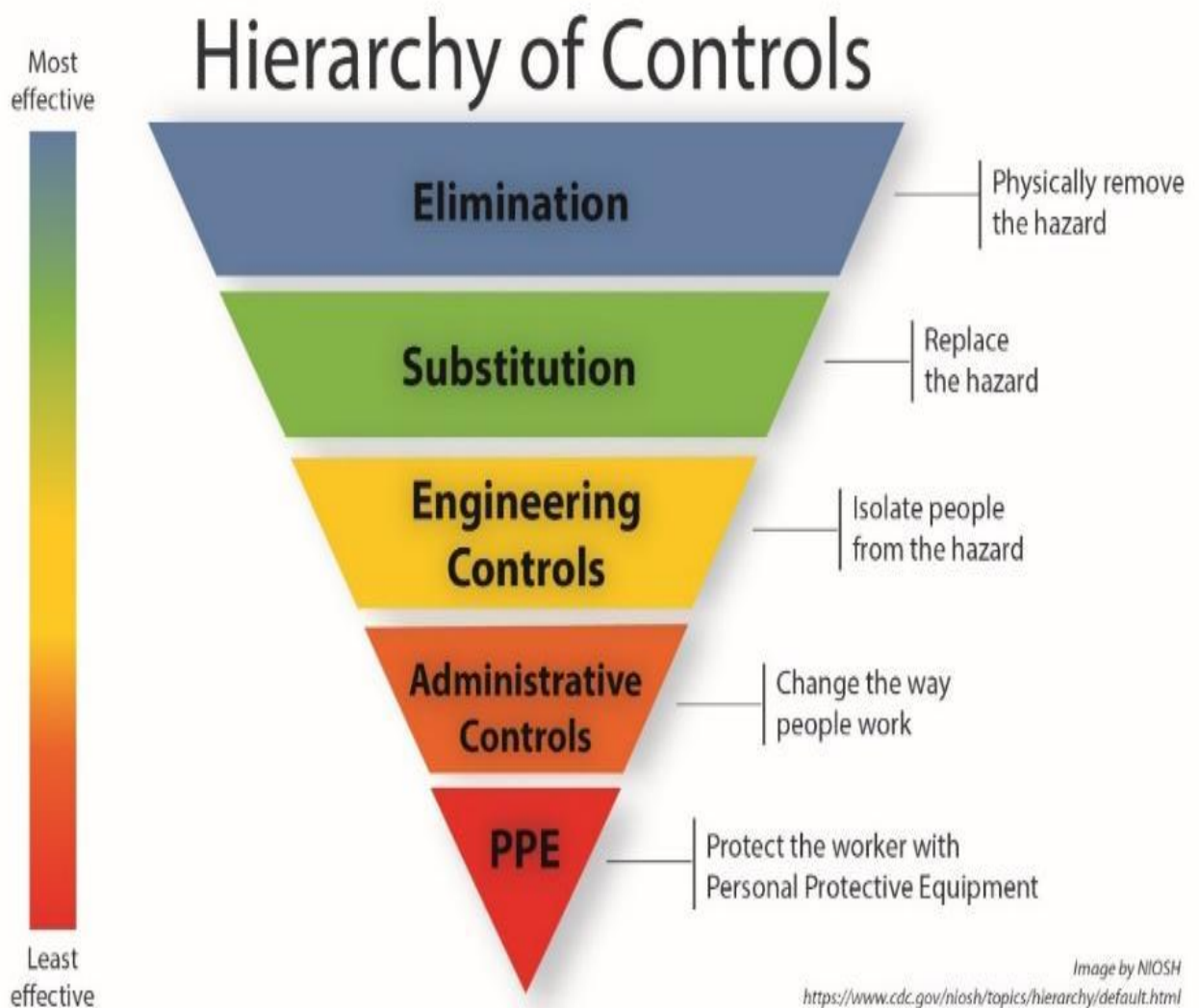


Figure 3-1: Hierarchy of controls (Source: NIOSH, 2022)

3.6.2.3.2 Emergency preparedness and response

The policy should state processes and procedures for preparing and responding to emergencies such as fires, floods, and communicable diseases, among others (ILO, 2009a:11-13; ISO, 2018:17-19). These should be appropriate to the organisation and must seek to *“identify the potential for accidents and emergency situations, and address the prevention of OHS risks associated with them”* (ILO, 2009a:12). Given that most governments already have established departments dealing with emergencies like fires, it is imperative for organisations to work with them when developing emergency processes and procedures (ILO, 2009a:11-13; ISO, 2018:17-19). According to the ILO (2009a:11-13) and ISO (2018:17-19), the processes and procedures should provide for the following: internal and external communication, first-aid and medical services, and relevant and regular OHS training to all members of the organisation.

3.6.2.3.3 Training

Arrangements for conducting OHS training in an organisation should be stated in the policy. Such arrangements should target everyone in the organisation at no cost to ensure that all the workers have adequate knowledge to perform their duties and responsibilities in a healthy and safe manner (ILO, 2009a:8). For the training to be effective, the following factors are necessary: clearly stated standards, availability of skilled trainers, regular review, organisation specific training, effective communication, and easy accessibility (ILO, 200a:8; ISO, 2018:15).

3.6.2.3.4 Consultation and involvement of workers

Best practices in OHS recommend that organisations must “*establish, implement and maintain a process(es) for consultation and participation of workers at all applicable levels and functions, and, where they exist, workers' representatives, in the development, planning, implementation, performance evaluation and actions for improvement of the OHSMS*” (ISO, 2018:10). Among other things, the following factors are necessary for employees and their representatives to participate effectively: meaningful consultation of workers and their representatives; adequate time and resources to participate; adequate and accurate OHS information; removal of participation barriers such as reprisals; regular OHS training; and platforms for participation such as OHS committees (ILO, 2009a:6-7; ISO, 2018:10-11). Emphasis should be placed on consulting non-managerial workers who come in direct contact with workplace hazards, but managers should not be negated (ILO, 2009a:6-7; ISO, 2018:10-11).

3.6.2.3.5 Internal and external communication

The organisation should establish processes for communicating OHS information internally and externally to ensure that all relevant stakeholders are duly informed (ILO, 2009a:9; ISO, 2018:15-17). These processes should consider what information should be communicated, how it should be communicated, and who it should be communicated to (ILO, 2009a:9; ISO, 2018:15-17). In order to promote effective communication, factors such as literacy levels, gender, disability, language, and culture should be considered when developing the communication processes (ILO, 2009a:9; ISO, 2018:15-17). These processes should be documented for easier retrieval and updated regularly as appropriate (ILO, 2009a:9; ISO, 2018:15-17).

3.6.2.3.6 Procurement and outsourcing

The policy should provide procurement processes and procedures to guide the organisation's procurement of goods and services (ILO, 2009a:12-13; ISO, 2018:17-19). These processes and

procedures should ensure that the regulatory requirements are identified and adhered to at all times. The policy should also contain clear processes and procedures for engaging contractors. These should provide for arrangements to monitor the OHS practices of contractors and to provide them with appropriate OHS training when necessary. Further, these processes and procedures should provide for effective communication with contractors as well as accident reporting arrangements (ILO, 2009a:12-13; ISO, 2018:17-19).

Unlike the international standards, the review of literature has provided the general design of an enterprise level OHS policy. This is useful as it enables the study to determine how the OHS policy for CHAU will be designed. In view of the foregoing, this study has been informed that the structure for the OHS policy for CHAU should have three main components. These are: health and safety policy statement; organisation of health and safety; and arrangement for health and safety. Although the review of literature has provided this study with a structure for designing the OHS policy for CHAU, it does not provide specific information required to develop an OHS policy appropriate for CHAU. This is because the information is too broad and not specific to the context prevailing at CHAU. Therefore, there is need to conduct research to generate information specific to CHAU.

3.7 GENERAL DESIGN OF A UNIVERSITY OCCUPATIONAL HEALTH AND SAFETY POLICY

In line with the arguments by the systems theory that the external environment influences the outcome of public policies, it was imperative for the study to establish the overall design of a university OHS policy. This benefited the study by illustrating how other universities have designed their OHS policies. As such, the foregoing contributed significantly to the design of the OHS policy for CHAU. Therefore, the study sought to review policies for universities from Zambia and other selected countries within and outside the African continent.

3.7.1 Lessons from Zambia

This study did not review any OHS policies for universities in Zambia because they were not available. At the time of the research, there was no university in the country with an established OHS policy. As a result, the study reviewed OHS policies for two parastatals, ZESCO Limited and Zambia Telecommunications Company (Zamtel) Limited, as they were accessible. This was aimed at drawing lessons on how OHS policies for public organisations in Zambia have been designed.

3.7.1.1 Design of occupational health and safety policies for parastatals in Zambia

Based on the said review, the study established that OHS policies for parastatals in Zambia are designed as follows.

3.7.1.1.1 Policy statement

The components of the OHS policy statement for parastatals in Zambia are as follows:

Purpose: OHS policies for parastatals in Zambia have a purpose. For example, the purpose of the OHS policy for Zamtel is to meet *“its duties to ensure, as far as is reasonably practicable, the health, safety and welfare at work of all its employees. This policy addresses not only the duties of Zamtel to protect the health, safety and welfare of its employees, but also the obligations placed upon every employee while at work”* (Zamtel, 2020:4).

Definitions: The OHS policies for public enterprises in Zambia define key terms used. These include contractor, disciplinary action, employees, first aid, hazardous substances, near miss, occupational disease or injury, and Zamtel (Zamtel, 2020:4).

Scope: Generally, the OHS policies for parastatals in Zambia provide coverage to all workers. These include full-time workers, part-time workers, temporal workers, and casual workers (Zamtel, 2020:4). In addition, the policy covers Zamtel premises.

Objectives: OHS policies for parastatals in Zambia have objectives. For example, the policy objectives for the Zamtel OHS policy are as follows: To establish and maintain a healthy environment throughout Zamtel; to protect employees, suppliers and customers from the risk of injury or ill-health and ensuring a healthy and safe work place; to protect employees, suppliers and customers against the health and safety risks arising from work activities; to control the use of highly flammable or dangerous substances; and to identify risks and put in place programmes to remove or reduce such risks.

Review: OHS policies for public enterprises in Zambia are reviewed when need arises. For example, Zamtel (2020:14) has committed to review its OHS policy whenever need arises.

3.7.1.1.2 Organisation of health and safety

Zambian parastatals have distributed their OHS responsibilities to various levels of their organisational structures. The following shows how the said responsibilities have been distributed:

Employer: OHS policies for parastatals in Zambia stipulate the obligation of employers. The following are some of the employers' obligations: protecting all workers from occupational accidents and diseases; providing safe systems of work; providing OHS training to all workers;

collaborating and consulting with relevant internal and external stakeholders; and safeguarding the health and safety of members of the public (Zamtel, 2020:8).

Chief human resource and administration officer: This officer is responsible for implementing, revising, and communicating the policy to all members of the organisation (Zamtel, 2020:5).

Executive management and line management: They have been tasked with the responsibility of implementing and disseminating the OHS policy to their departments and units (Zamtel, 2020:5).

Employees: All employees are required to comply with all the provisions of the OHS policy and other legal requirements. In addition, they are required to report all hazards and risks in their work environment (Zamtel, 2020:5). Furthermore, employees are required “*to take reasonable care for the employee’s own health and safety and that of other persons who may be affected by the employee’s acts or omissions at the workplace*” (Zamtel 2020:6).

Suppliers, customers, visitors, and other stakeholders: They are all required to comply with the provisions of the OHS policy (Zamtel, 2020:5).

Human Resource Operations Manager: This officer is responsible for implementing the OHS policy. As such, he/she will be responsible for providing guidance and support to line managers and workers on how to effectively implement the policy in their sections (Zamtel, 2020:5).

OHS committee: In line with the Occupational Health and Safety Act of 2010, parastatals in Zambia seek to establish OHS committees. For example, the functions of the OHS committee at Zamtel (2020:14) are to: Promote cooperation between the company and the employees in achieving and maintaining health and safe working conditions; share information about occupational health, safety and welfare with employees; investigate and resolve any matter that may be a risk to the health and safety of employees at a workplace; review the measures taken on the health and safety of employees at a workplace; and formulate, review and disseminate to the employees the standards, rules and procedures relating to health and safety to be carried out at the workplace.

3.7.1.1.3 Arrangements for occupational health and safety

There are a number of arrangements for OHS that have been presented in OHS policies for parastatals in Zambia. The following are the major ones:

Communication and consultation: The OHS policies for parastatals in Zambia provide for the provision of OHS information to workers and other stakeholders using various methods such as newsletters, circulars, intranet, notice boards, and meetings (Zamtel, 2020:9; ZESCO, 2022).

Risk management: Parastatals in Zambia are committed to reducing occupational risks. Generally, risk assessments are carried out by line managers and staff who perform specific tasks. According to Zamtel (2020:9), the assessment of risks is done as follows:

- Identifying the main work activities being performed;
- Itemising the notable occupational hazards and risks associated with the identified activities; and
- Choosing the most feasible and effective measure(s) to alleviate identified hazards and risks.

Accident reporting and investigation: OHS policies for parastatals in Zambia provide for accident reporting and investigation. All accidents in the workplace are to be reported and investigated with the primary aim of establishing their root cause (Zamtel, 2020:9).

First aid: Parastatals in Zambia commit to providing adequate first aid services. This is aimed at ensuring that there is enough first aid for workers and other stakeholders such as visitors and contractors (Zamtel, 2020:10).

Fire and emergency evacuation: Public enterprises in Zambia have committed to establishing arrangements for fire and emergency evacuation. These include training employees on OHS; assessing fire risks; clearly labelling all exit routes and making them visible and accessible; conducting fire drills; installing emergency signal systems like alarms; and appointment of fire wardens (Zamtel, 2020:10). In addition to fire emergencies, the OHS policies for parastatals in Zambia have also committed to putting in place procedures for other emergencies like bombs (Zamtel, 2020:10).

Security: Through their OHS policies, public enterprises in Zambia have committed to providing adequate security at their premises to promote health and safety for workers, visitors, and contractors, among others (Zamtel, 2020:12).

Training: Another commitment that parastatals in Zambia have stated is the provision of OHS training to all workers in their organisations. For example, the OHS policy for Zamtel (2020:13) states that “*provision shall be made to ensure all employees receive adequate information, instruction and training with respect to health and safety; All new employees shall receive health and safety training during their initial induction.*”

Monitoring and performance review: The parastatals in Zambia have committed to continual improvement in the management of health and safety through regular audits and reports. Furthermore, the organisations, through their OHS policies have committed to complying with legal requirements (Zamtel, 2020:13).

OHSMS: Public enterprises in Zambia have adopted OHSMSs. For example, ZESCO (2022) has adopted an integrated management system that incorporates safety, health, environment, and quality, among others.

Legal requirements and related policies: The OHS policies for public enterprises in Zambia are guided by internal organisation policies and relevant national laws on OHS. For example, the OHS policy at Zamtel (2020:14) is supported by “*Zamtel conditions of services, Zamtel policies and procedures, and all relevant Zambian laws.*”

The review of OHS policies for parastatals in Zambia provides relevant information to the development of an OHS policy for CHAU. This is because they illustrate what needs to be contained in the OHS policy. However, the information does not provide relevant and actual information that should be included in the OHS policy for CHAU. As such, the gap that this study seeks to fill still remains unfilled.

3.7.2 Lessons from African Universities

Reviewing OHS policies for universities in Africa was imperative for this study because Zambia is located in Africa, and this creates a strong possibility that the country might share similar characteristics with other African countries. As such, it was important to draw lessons from other African universities to establish how they have structured their health and safety policies. An online search of OHS policies for universities in Africa revealed that, with the exception of South African universities, the majority of universities on the continent either do not have an OHS policy or have not made it available online. Consequently, only a few OHS policies for African universities outside South Africa were accessible online. In view of the foregoing, only one university OHS policy was reviewed from each of the following countries, Ghana, Nigeria, and Zimbabwe. In the case of South Africa, OHS policies from more than one university were reviewed.

3.7.2.1 Ghanaian experience

In Ghana, the only university OHS policy that was reviewed is that of Kwame Nkrumah University of Science and Technology as it was the only one available online from public universities in the country. The OHS policy for the University is structured as follows:

3.7.2.1.1 Health and safety policy statement

The policy statement for the Kwame Nkrumah University of Science and Technology consists of the following components:

Purpose of the policy: The purpose of the University's OHS policy is to demonstrate management's unwavering pledge to fulfil the obligations spelt out in Ghana's Labour Act of 2003. Additionally, the policy provides a proactive and comprehensive framework for alleviating occupational hazards and risks (Kwame Nkrumah University of Science and Technology, 2018:1).

Scope of the policy: The policy applies to all workers, students, contractors, visitors, tenants, and service providers (Kwame Nkrumah University of Science and Technology, 2018:1).

Responsible officer(s): The responsibility for OHS at the University lies with the Vice-Chancellor (VC) (Kwame Nkrumah University of Science and Technology, 2018:1).

Objectives: There are a number of objectives that the University's OHS policy intends to achieve. The objectives for the Kwame Nkrumah University of Science and Technology (2018:1-2) include establishing OHS arrangements to aid the implementation of the OHS policy; integrating OHS into the overall University management system; making the University healthy and safe for working, teaching, studying, and researching; establishing procedures for hazard and risk assessment; and promoting collaboration with stakeholders, and providing health and safe machines and equipment.

3.7.2.1.2 Organisation of health and safety

The organisation for OHS at Kwame Nkrumah University of Science and Technology details the allocation of OHS responsibilities and authority at all levels as explained below.

Governing body: The University is governed by a Council, which is ultimately responsible for OHS. It provides oversight for the implementation of the policy and ensures that it conforms to all legal and other requirements. The Council is also responsible for providing OHS leadership and commitment, establishing effective university-wide communication channels, and providing adequate resources (Kwame Nkrumah University of Science and Technology, 2018:3).

CEO: The VC is the CEO of the University and is responsible for developing and implementing the University's OHSMS. In addition, the VC is responsible for ensuring that all OHS objectives are achieved (Kwame Nkrumah University of Science and Technology, 2018:4).

Top management: These include Provosts, Deans, and Directors who are responsible for implementing the OHS policy in the units for which they are responsible. Precisely, they are responsible for ensuring that the following are established in their units: consultation channels or platforms with stakeholders, integrating OHS in the execution of everyday functions, regular training programmes, emergency procedures, regular workplace inspection and audit procedures, and adequate resources for OHS implementation and improvement (Kwame Nkrumah University of Science and Technology, 2018:4-5).

Employees and students: These are responsible for ensuring that they protect themselves and others from occupational accidents and diseases. As a result, they are required to comply with all University OHS regulations, report all hazards, accidents, injuries and malfunctioning machines and PPEs to their supervisors, and acclimatising themselves with procedures relating to emergencies, risk assessment, and fire extinguishing, among others (Kwame Nkrumah University of Science and Technology, 2018:6-7).

Health and safety risk advisor: Responsible for steering OHS investigations and audits, guiding the University on OHS policy development and implementation, scheduling OHS training, and reporting to the CEO on OHS performance in the University (Kwame Nkrumah University of Science and Technology, 2018:7).

Health and safety representatives: These are responsible for supporting top management with everyday implementation of the OHS policy and participating in scheduled training and audits (Kwame Nkrumah University of Science and Technology, 2018:8).

OHS committee: The responsibilities of the OHS committee include, but are not limited to, guiding the development and implementation of the University's OHS policy, monitoring the performance of the OHSMS, submitting OHS reports to the quality assurance committee, and consulting with stakeholders (Kwame Nkrumah University of Science and Technology, 2018:8).

3.7.2.1.3 Arrangements for health and safety

The existing and intended arrangements to support the implementation of the OHS policy at Kwame Nkrumah University of Science and Technology include the following:

Procedures and processes: The University has committed to establishing processes and procedures for handling the following: risk assessment, inspections, fire prevention, manual handling, handling of hazardous substances, electricity safety, noise, vibration, working at height, display screen equipment, remote working, first aid, pregnant women, disabled people, children at work, food vendors, waste management, drugs and alcohol at work, consultation and collaboration with stakeholders, policy monitoring and review, and auditing (Kwame Nkrumah University of Science and Technology, 2018).

Training: Programmes will be established to train the University community on fire prevention, electricity safety, first aid, handling of hazardous substances, and ergonomic safety (Kwame Nkrumah University of Science and Technology, 2018).

Communication: The University will establish effective channels of communication that are user friendly to the entire University community, including the differently-abled such as the blind and deaf (Kwame Nkrumah University of Science and Technology, 2018:14).

Collaboration and consultation: This will be facilitated using the University's OHS policy, which is already in place (Kwame Nkrumah University of Science and Technology, 2018).

The Ghanaian experience has demonstrated that Ghanaian public universities develop proactive and comprehensive OHS policies. This is relevant to this study because it gives impetus to the aim of this study which is to develop a proactive and comprehensive OHS policy for CHAU. Additionally, the Ghanaian experience has shown that OHS policies for public universities in Ghana have three main components in line with the literature. These are policy statement, organisation of OHS, and arrangements for OHS. Despite Ghana being an African country like Zambia, the information generated by reviewing the health and safety policy for its public university can only be used to provide a general structure of how an OHS policy for an Africa university can be developed. This is because it does not provide information that responds to the unique characteristics of CHAU. Therefore, this study seeks to collect appropriate information that will be used to develop an appropriate health and safety policy for CHAU.

3.7.2.2 Nigerian experience

The OHS policy for the University of Lagos is the only one that was available online. As such, it was the only one that was reviewed. The University's OHS policy is structured as discussed below.

3.7.2.2.1 Health and safety policy statement

The University's OHS policy statement has the following major components:

Purpose of the policy: The purpose of the policy is to provide a framework for safeguarding the well-being of all workers, students, visitors, and contractors (University of Lagos, 2016:2).

Scope of the policy: The University's policy covers all workers, students, visitors, and contractors (University of Lagos, 2016:2).

Statement of intent: The University is committed to integrating OHS into its overall management system, establishing proactive healthy and safe working methods, complying with the country's laws such as the Factories Act, consultation with stakeholders through committees, communicating effectively with the University community, and establishing procedures for monitoring and reviewing the OHS policy and its management system (University of Lagos, 2016:2-3).

Responsible officer(s): The responsibility for OHS at the University has been placed on the VC (University of Lagos, 2016:3).

Policy review period: The University reviews its OHS policy once every two years, subject to substantial changes to the legal and other requirements (University of Lagos, 2016:3).

3.7.2.2.2 Organisation of health and safety

OHS responsibilities at the University of Lagos are allocated at all levels of the organisational structure as follows:

Governing body: The governing body at the University is the Council, which is responsible for providing leadership and strategic OHS direction, overseeing adherence of the OHS policy legal provisions, integrating OHS into overall University management, and providing adequate resources for OHS improvement (University of Lagos, 2016:2).

CEO: The CEO of the University is the VC who is responsible for informing the Council on the required resources for OHS, establishing adequate platforms for consulting and collaborating with stakeholders, and putting in place effective channels of communication (University of Lagos, 2016:3).

Top management: This category includes Provosts, Deans, and Directors who are responsible for ensuring that the OHS policy and its management system is implemented in the units under their control (University of Lagos, 2016:4). They are also responsible for appointing OHS representatives, incorporating OHS in the day-to-day functions of their supervisees, scheduling regular training, and preparing annual OHS reports (University of Lagos, 2016:4).

Safety officer: Responsible for implementing the OHS policy, its management system, and related processes and procedures. Furthermore, the safety officer is responsible for scheduling regular training, proactive identification and alleviation of workplace hazards and risks, and safe disposal of waste (University of Lagos, 2016:4-5).

Employees/students/contractors/visitors: They have the responsibility to ensure their safety and that of others. Thus, they should adhere to the OHS policy and other processes and procedures, which the University has developed to safeguard the wellbeing of the University community (University of Lagos, 2016:5).

3.7.2.2.3 Arrangements for health and safety

The University of Lagos OHS policy does not have a section detailing the arrangements that have either been established or those which will be developed.

A review of the health and safety policy for University of Lagos has provided useful information on how OHS responsibilities can be allocated at various levels of the university management structure. However, many of these responsibilities are guided by Nigerian legislation and cannot be used to develop an OHS policy for CHAU. Thus, this study seeks to conduct a research that will generate information to develop a tailor-made OHS policy for CHAU.

3.7.2.3 South African experience

In line with the Occupational Health and Safety Act No. 85 of 1993, a number of universities in South Africa have developed their comprehensive and proactive OHS policy, which they have made available online. Thus, this study reviewed OHS policies from four universities in the country. These are North-West University (NWU), Rhodes University, the University of Cape Town (UCT), and the University of Pretoria (UP). Generally, the structure of OHS policies developed by the said universities conforms to the aforesaid Act and international best practices as discussed below.

3.7.2.3.1 Health and safety policy statement

South African universities have demonstrated that health and safety is a priority for them by developing a policy statement to show their commitment to OHS. The policy statement demonstrates commitment by providing relevant information about the policy such as purpose, scope, intentions, accountable or responsible officer(s), objectives and aims, and review period. These are discussed next.

Purpose of the policy: Universities in South Africa have developed OHS policies to provide a working, learning, and researching environment that ensures that workers, students, visitors, and contractors are free from injury and harm (UP, 2020:2).

Scope of the policy: The OHS policies cover all university premises, workers, students, visitors, and contractors (NWU, 2019:2; Rhodes University, 2019:1; UP, 2020:2).

Statement of intent: Universities in South Africa have made commitments to the following in order to demonstrate that OHS is a priority: establishing OHS processes and procedures, developing OHS training programmes, respecting the right to a healthy and safe environment, complying with OHS laws such as the Occupational Health and Safety Act No. 85 of 1993, providing adequate resources for OHS improvement, continuous and regular monitoring and review of the OHS policy and its management system, meeting international standards, and promoting healthy and safe working methods (NWU, 2019:4; Rhodes University, 2019:1; UCT, 2020:1; UP, 2020:3).

Responsible officer(s): In South African universities, the CEO is ultimately accountable for OHS. The position of CEO is generally occupied by the VC (NWU, 2019:4; Rhodes University, 2019:4).

Policy review period: Generally, universities review their OHS policies once every three years. This is the case at NWU (2019:1) and Rhodes University (2019:1).

Definitions: The key words that have been defined include competent person, danger, employee, hazard, healthy, machinery, student, trade union, and workplace (Rhodes University, 2019:2).

Objectives/aims: The aim of OHS policies among universities in South Africa is to comply with the legal requirements stipulated in the Occupational Health and Safety Act No. 85 of 1993 whose objective is “*to provide for the health and safety of persons at work and for the health and safety of persons in connection with the use of plant and machinery; the protection of persons other than persons at work against hazards to health and safety arising out of or in connection with the activities of persons at work; to establish an advisory council for occupational health and safety; and to provide for matters connected therewith*” (Republic of South Africa, 1993). Other objectives include, but not limited to, achieving OHS performance beyond the legal requirements, establishing a sustainable OHSMS, and providing OHS for OHS improvement (UCT, 2020:1).

Consequences of poor OHS: In its OHS policy, UP (2020:2) has highlighted the possible consequences for poor OHS at the University. These include public distrust, loss of potential students, disciplinary action against erring workers by management, and legal sanctions of employers by the state, including imprisonment and fines (UP, 2020:2).

3.7.2.3.2 Organisation of health and safety

Responsibilities and authority for OHS have been allocated at all levels in South African universities. The following is a discussion on the categories of officers and individuals who are responsible for OHS in universities:

Governing body: In line with the Higher Education Act No. 101 of 1997 and its amendments, every university in South Africa is governed by a Council, which is responsible for providing strategic direction. With regard to OHS, the Council is responsible for ensuring that an OHS policy, which conforms to the legal requirements is in place (NWU, 2019:3).

CEO: In South Africa, the CEOs for universities include VCs. For example, the CEO of NWU (2019:4) and Rhodes University (2019:4) is the VC who is ultimately responsible and accountable for OHS. The VC ensures that the OHS policy is developed and in conformity with the law before submitting it to the Council for approval (Rhodes University, 2019:4).

Top management: This includes Deputy Vice-Chancellors (DVCs), Deans, and Directors who are responsible for promoting health and safety in the units they are heading. They are specifically responsible for making sure that the health and safety policy is implemented, continuously monitored, and regularly reviewed and audited (NWU, 2019:3; Rhodes University, 2019:4). Furthermore, they are responsible for appointing health and safety representatives, providing health and safety training, consulting with stakeholders, introduction of health and safe working methods (NWU, 2019:3; Rhodes University, 2019:4; UCT, 2020:1).

Director of infrastructure, operations, and finance: Responsible for ensuring that all construction projects on university premises are in conformity with national and university OHS regulations (Rhodes University, 2019:4).

Director of human resources: Responsible for ensuring that all appointments are reviewed and approved by the safety, health, and environment (SHE) officer and in conformity with university OHS regulations (Rhodes University, 2019:4).

Risk control manager: Responsible for providing oversight on hazard and risk assessment to the SHE officer as well as participating on all relevant OHS committees in the university (Rhodes University, 2019:5).

SHE officer: Responsible for establishing and maintaining the university's OHSMS, consulting with stakeholders and all levels of management, and reporting on the overall performance of OHS in the university (Rhodes University, 2019:5).

Machinery supervisor: Ensures that all university machinery and equipment is regularly maintained (Rhodes University, 2019:5).

Trade unions: Responsible for ensuring that their members are aware of all the OHS regulations as well as making sure that all negotiations and collective agreements are in conformity with OHS regulations (Rhodes University, 2019:7).

Employees: They are responsible for their own safety and that of others. They must adhere to all the university regulations and policies as well as reporting all accidents, incidents, injuries, and illnesses (Rhodes University, 2019:6; UCT, 2020:1).

Health and safety representatives: They are charged with the responsibility to monitor the OHS policy and report any relevant health and safety information. Furthermore, they serve on the appropriate OHS committees of the university (Rhodes University, 2019:7).

First aider: This is the warden of all first aid equipment for the university. The first aider is responsible for regularly inspecting all fire equipment to ensure that they are functional and always ready for use (Rhodes University, 2019:7).

Fire marshals: These are responsible for regularly checking firefighting equipment and emergency exit routes to ensure that they are always functioning (Rhodes University, 2019:8).

OHS committee: In accordance with the Occupational Health and Safety Act No. 85 of 1993, universities in South Africa have established an OHS committee to facilitate, among other things, consultation with stakeholders (Rhodes University, 2019:8-9). The composition of OHS committees is prescribed in the Act.

3.7.2.3.3 Arrangements for health and safety

Universities in South Africa have developed a number of arrangements to aid the implementation of their OHS policies. These include the following:

OHSMS: In order to implement their OHS policies, South African universities have put in place appropriate management systems for health and safety. For example, NWU (2019:2) has implemented the North-West University Occupational Health and Safety Management System (NWUOHSMS).

Processes and procedures: These include, but not limited to mechanisms for, hazard identification and risk assessment, policy monitoring and review, health and safety training, and machine and equipment maintenance (NWU, 2019:2; Rhodes University, 2019:3; UP, 2020:3).

Consultation: This has been facilitated by the establishment of health and safety committees in accordance with the Occupational Health and Safety Act No. 85 of 1993. These have been established at Rhodes University (2019:8-9).

Communication: A number of universities in South Africa have enhanced communication of their OHS policy by making them available on the internet.

Related policies: OHS policies are supported by related policies including disability policy and discrimination and harassment policy (Rhodes University, 2019:1).

Relevant laws: The major law that OHS policies in South African universities adhere to is the Occupational Health and Safety Act No. 85 of 1993 (Republic of South Africa, 1993).

The South African laws that guided the development of university health and safety policies are different from Zambia's. Therefore, while a review of health and safety policies for the country's

universities is important as it shows how other African universities have designed their policies, it does not provide specific and appropriate information for the development of the health and safety policy at CHAU. This study, thus, seeks to generate appropriate information for the development of an OHS policy for CHAU.

3.7.2.4 Zimbabwean experience

Like Ghana and Nigeria, only one OHS policy for the Lupane State University was reviewed among Zimbabwean universities. This is because it was the only one that was easily accessible via the internet. The nature of the Lupane State University health and safety policy is discussed below.

3.7.2.4.1 Health and safety policy statement

The policy statement for the Lupane State University health and state policy provides the following key information:

Purpose of the policy: The policy provides a guideline for establishing and maintaining an environment that is conducive for teaching and learning. Furthermore, it promotes health and safety responsibility among members of the University community such as staff and students. It also, prevents and reduces work-related accidents and diseases among workers, students, visitors, and contractors (Lupane State University, 2017:1).

Scope of the policy: The policy provides for the safeguarding of the well-being of all staff, students, visitors, and contractors. Additionally, it is applicable to all University premises and those not owned by the University but where staff and students may be conducting official business (Lupane State University, 2017:1).

Statement of intent: The University is committed to the following: Compliance to all legal and other requirements, providing adequate resources for health and safety improvement, providing health and safety training, hazard identification and risk assessment, and consultation with stakeholders such as workers and students (Lupane State University, 2017:2-3).

Responsible officer(s): The VC is ultimately responsible for health and safety at Lupane State University (2017:3).

Policy review period: At Lupane State University (2017:4), the health and safety policy is reviewed “as and when the need arises.”

Objectives: The objectives for the health and policy include reducing hazards and risks; adhering to appropriate national legislation; keeping records of all accidents, incidents, injuries, and illnesses; collaborating and consulting with workers and students; training the University community on relevant health and safety processes and procedures; monitoring and reviewing the health and safety policy and its management system; providing adequate and appropriate resources for health and safety (Lupane State University, 2017:1-2).

3.7.2.4.2 Organisation of health and safety

The responsibilities and authority for health and safety at Lupane State University have been allocated as follows:

Governing body: The University is governed a Council, which is responsible for ensuring that the health and safety policy and its related processes and procedures are compliant with all the legal and other requirements (Lupane State University, 2017:3-4).

CEO: The VC is ultimately responsible and accountable for health and safety at the University. Specific responsibilities include overseeing the implementation of the health and safety policy and its OHSMS (Lupane State University, 2017:3-4).

Heads of units: They are responsible for ensuring that the health and safety policy is implemented and regularly reviewed in the units under their control (Lupane State University, 2017:3-4).

Health and safety committee: It is responsible for implementing and monitoring the comprehensive and proactive health and safety policy for the University. Furthermore, the committee coordinates accident investigations and reports all accidents, injuries, and illnesses to the CEO (Lupane State University, 2017:3-4).

Staff/students/visitors: They are responsible for their safety and that of others in the University (Lupane State University, 2017:3-4).

3.7.2.4.3 Arrangements for health and safety

The Lupane University has stated in its health and safety policy the arrangements that it shall put in place to aid the implementation of its health and safety policy. These include the following: developing, implementing, and reviewing health and safety regulations; scheduling regular health and safety meetings; compiling and reviewing reports for all accidents, injuries, and illnesses; and investigating accidents promptly (Lupane State University, 2017:4).

Although Zimbabwe is Zambia's neighbour, a review of one of the country's public university's health and safety policy does not provide accurate information necessary for developing an OHS policy for CHAU. This is because the Zimbabwean University developed its policy using state laws and specific characteristics within its premises. As such, the development of an OHS policy for CHAU must also be guided by Zambian laws and unique characteristics of the university and its working environment. Therefore, this study seeks to conduct a research to generate information that is appropriate and specific to CHAU so as to develop an OHS policy that will have the best chance of alleviating occupational hazards and risks.

3.7.3 Lessons from universities outside Africa

Universities outside the African continent offer lessons that are unique to countries that do not share a number of similarities with Zambia. Thus, it was imperative to review their OHS policies in order to benefit from their experiences, which could not be learned by only reviewing health and safety policies for universities in African countries. As such, this section reviewed OHS policies for universities in Australia, Canada, England, Hong Kong, United Arab Emirates (UAE), and the United States of America (USA). These countries were chosen for two reasons. First, they are developed and their experiences could offer valuable lessons to Zambia. Second, the OHS policies for their universities were easily accessible online.

3.7.3.1 Australian experience

A number of universities in Australia have developed an OHS policy in line with key legislation such as the Occupational Health and Safety Act of 2004a and Work Health and Safety Act of 2011. Although OHS policies for Australian universities have a similar structure, there are variations in the nomenclature. The two common variants are Work Health and Safety Policy (WHS), and Health and Safety Policy (H&S) (Curtin University, 2021; Australian National University, 2022). For purposes of this study, the term occupational health and safety (OHS) policy will be used. The general design of OHS policies for Australian universities is discussed below.

3.7.3.1.1 Health and safety policy statement

A number of Australian universities are committed to safeguarding the well-being of workers, students, contractors, visitors, and other individuals who come in contact with their environment. This commitment has been demonstrated by the development of OHS policies that state in no uncertain terms how health and safety will be promoted as discussed below.

Purpose/aim of the policy: Generally, the purpose of OHS policies in Australian universities is two-fold. The first is to fulfil all legal requirements prescribed in laws such as the Occupational Health

and Safety Act of 2004a and Work Health and Safety Act of 2011. The second is to create an environment in which workers, students, contractors, and visitors can carry out their activities without any threat to their well-being (University of Wollongong, 2020; Curtin University, 2021; University of Canberra, 2021; University of Melbourne, 2021; University of Southern Queensland, 2021; Australian National University, 2022). For example, Curtin University (2021:1) states that the purpose of its OHS policy is *“to provide a healthy and safe workplace for all workers, students and visitors.”*

Scope of the policy: The policies are comprehensive as they have a university-wide scope encompassing all campuses for those with more than one (University of Melbourne, 2021; University of Southern Queensland, 2021; Australian National University, 2022). They cover all workers, students, contractors, visitors, and other individuals who come in contact with the university environment. Workers and students carrying out official duties but operating in locations not under the control of the university are also covered (University of Wollongong, 2020; Curtin University, 2021; University of Canberra, 2021; University of Melbourne, 2021; University of Southern Queensland, 2021). For instance, the University of Melbourne (2021:1) has developed an OHS policy that *“applies to all staff, students, contractors and other personnel at locations under the management or control of the University.”*

Statement of intent: To achieve the purpose(s)/aims of their individual OHS policy, each university has committed to taking appropriate action. Generally, commitments include, but are not limited to, adherence to legal requirements stipulated in OHS laws, establishing and maintaining a robust OHSMS based on the national standard AN/NZS/45001, developing and maintaining an OHS culture, consulting and collaborating with workers, students, contractors, visitors and partner organisations, regular OHS training, effective OHS communication, identifying and assessing risks and hazards, accident investigation and reporting, and allocating responsibilities and authority at all levels of the university structure (University of Wollongong, 2020; Curtin University, 2021; University of Canberra, 2021; University of Melbourne, 2021; University of Southern Queensland, 2021; Australian National University, 2022).

Responsible officer(s): Ultimate responsibility to ensure that OHS policies and systems are in place and in conformity with legal and other requirements lies with the Council in line with every public university's Act of parliament (University of Canberra, 1989; University of Wollongong, 1989, Australian National University, 1991; University of Melbourne, 2009; Federation University Australia, 2010). Accordingly, at the University of Wollongong (2020) and the Flinders University (2021), the Council is the approving authority for the OHS policy. However, given that the Council, as stated in each university's Act, delegates its powers, some universities place the responsibility of approving their OHS policy on senior executive officers such as VCs, President, Vice-President,

and DVCs (University of New South Wales, 2023; University of Melbourne, 2021; Australian National University, 2022).

Policy review period: The frequency of policy review varies between 1 and 5 years. For example, at the Flinders University (2021:4), the current OHS policy was effected on 21st July 2021 and its next review date shows July 2024. At the Australian National University (2022:3), the existing policy, which was approved on 23rd November 2022 will be reviewed on 23rd November 2027.

Definitions: A number of universities have taken the trouble to define key concepts in their OHS policies to ensure that all stakeholders have a common understanding of what they entail. The key words that have been defined include, but not limited to, academic freedom, emergency, risk, hazard, incident, manager, worker, trainee, contractor and subcontractor, university community, campus, and university premises (University of Wollongong, 2020; Curtin University, 2021; University of Canberra, 2021; University of Melbourne, 2021; University of Southern Queensland, 2021; Australian National University, 2022). While the definition of each of the said terms may be similar across universities, each university provides its own appropriate definition. For example, at the University of New South Wales (2023:3) an OHSMS is defined as “*a set of plans, actions and procedures to systematically manage health and safety in the workplace that is actively endorsed by a committed employer.*” For the Curtin University (2021:2), an OHSMS is “*an integrated system that provides a systematic management approach to managing health and safety at the workplace. It comprises health and safety policies, management standards, procedures, guidelines, forms and checklists, online systems and tools.*”

3.7.3.1.2 Organisation of health and safety

Implementation of an OHS policy requires allocation of responsibilities at all levels of the organisation. Hence, universities in Australia have appropriately distributed OHS responsibilities and authority as explained below:

Governing body: Every public university in Australia is established by its own Act of Parliament which establishes a Council as the governing body. Therefore, ultimate responsibility for OHS rests on the Council, which is charged with the responsibility to ensure that OHS policies and systems are developed, implemented, and sustained and in conformity with legal and other requirements (University of Canberra, 1989; University of Wollongong, 1989, Australian National University, 1991; University of Melbourne, 2009; Federation University Australia, 2010).

CEO: In Australia, the CEO for a university is the VC or President who is responsible for guiding the development and implementation of OHS policies and OHSMSs and report to the Council (University of Wollongong, 2020; Curtin University, 2021; University of Canberra, 2021; University of Melbourne, 2021; University of Southern Queensland, 2021; Australian National University,

2022). The CEO is responsible for ensuring that adequate financial and human resources are made available to facilitate OHS management in the University. They are also responsible for establishing appropriate OHS committees in accordance with the law and university procedures (University of Wollongong, 2020; Curtin University, 2021; University of Canberra, 2021; University of Melbourne, 2021; University of Southern Queensland, 2021; Australian National University, 2022).

Top management: Deputy Presidents, DVCs, Deans, and Directors form this category. Given that they are in charge of units, colleges, schools, institutes, and directorates, their main responsibility is to provide guidance on OHS management over their units (University of Wollongong, 2020; Curtin University, 2021; University of Canberra, 2021; University of Melbourne, 2021; University of Southern Queensland, 2021; Australian National University, 2022). Among other things, they monitor OHS compliance, conduct training needs analysis, report relevant OHS information such as accidents to their superiors, provide PPEs, and provide financial resources (University of Wollongong, 2020; Curtin University, 2021; University of Canberra, 2021; University of Melbourne, 2021; University of Southern Queensland, 2021).

OHS committees: A number of universities in Australia have established committees for different purposes. For example, the University of New South Wales (2023:2) has health and safety committees, which are *“responsible for ensuring effective consultation and issue resolution takes place within their responsible workgroup, providing health and safety advice and may assist with the implementation of the Safety Management System.”* Furthermore, the Federation University (2022:10) has a health and safety policy committee, which *“is responsible for monitoring the implementation, outcomes and scheduled review of the University’s policy and its accompanying procedure/s.”*

Employees/students/contractors/visitors: These have generally been allocated similar responsibilities by universities in Australia. For example, the Curtin University (2021:1) states that *“the University expects that all workers, students and visitors will accept their joint responsibility and cooperate in ensuring that the highest possible health and safety standards are maintained in all University activities.”* The University of Southern Queensland (2021:2) records that *“University Employees, Students, Contractors, Visitors and other persons on a University Site or Workplace are responsible for and are required to: take care of their own health and safety; take care that their acts or omissions do not adversely affect the health and safety of other persons; comply with any instruction that is given by the University with regards to safety; comply with any policy or procedure of the University relating to health or safety at the workplace and in particular the Safety Management System; and report incidents and any unsafe conditions or issues that come to their attention.”*

3.7.3.1.3 Arrangements for health and safety

There are numerous processes and procedures that Australian universities have already established to support the implementation of their OHS policies. However, a number of universities do not state all of them in their OHS policies, they merely refer readers to appropriate platforms where they can be accessed. Generally, the following are the processes and procedures common among Australian universities:

OHSMS: Universities in Australia have developed OHSMSs based on the PDCA model for continual improvement (Federation University, 2022:10).

Consultation: Australian universities have established OHS committees to facilitate and promote consultation between management and workers (Federation University, 2022:10).

Legal requirements: The OHS policies for universities in Australia aim at fulfilling the legal provisions of the Occupational Health and Safety Act of 2004a and Work Health and Safety Act of 2011 (University of Wollongong, 2020; Curtin University, 2021; University of Canberra, 2021; University of Melbourne, 2021; University of Southern Queensland, 2021; Australian National University, 2022).

Indemnification: To negate a blame culture and protect workers from victimisation, Australian universities provide for the indemnification of workers performing OHS functions (Federation University, 2022:9).

Processes and procedures: A number of processes and procedures for managing OHS have been developed by Australian universities. These include hazard and risk identification and assessment, managing overcrowding in classes, accident and incident reporting, health and safety dispute resolution, flood management, working in confined spaces, managing children, motor vehicles guidelines, and animals on university premises, and managing contractors (University of Wollongong, 2020; Curtin University, 2021; University of Canberra, 2021; University of Melbourne, 2021).

Communication: To promulgate their OHS policies, Australian universities use websites, emails, employee handbooks, and notice boards (Federation University, 2022:11).

OHS resources: Australian universities have committed to allocating adequate financial and human resources for OHS management (University of Wollongong, 2020; Curtin University, 2021; University of Canberra, 2021; University of Melbourne, 2021; University of Southern Queensland, 2021; Australian National University, 2022).

Regular reports: Universities in Australia have established procedures for producing regular reports on OHS performance (University of Canberra, 2021).

Training: Universities in Australia have established training programmes focusing on fire management and administration of first aid (University of Wollongong, 2020; Curtin University, 2021; University of Canberra, 2021; University of Melbourne, 2021; University of Southern Queensland, 2021; Australian National University, 2022).

The health and safety policies for Australian universities are in line with best practices as they have a policy statement, organisation of health and safety, and arrangements for health and safety. Reviewing these policies has generated important information pertaining to how CHAU can design its OHS policy. For example, they have provided information on the categories of people to be allocated health and safety responsibilities. However, this review does not offer practical information, which can be used to develop an OHS policy for CHAU because it is dependent on Canadian laws and the unique characteristics prevailing in Canadian universities. Therefore, the development of a health and safety policy for CHAU will require an investigation into the Zambian laws and the unique characteristic of the University.

3.7.3.2 Canadian experience

In Canada, all employers are legally mandated to establish an OHS policy to guide the elimination and control of occupational hazards and risks. For instance, in the Prince Edward Island Province, employers with five or more workers are required to establish an OHS policy (Occupational Health and Safety Act of 2004b). Generally, there are two types of approaches that have been used to develop OHS policies in Canadian universities. These are the integrated environment, health, and safety approach and the separate health and safety approach. For example, Carleton University (2021) has an integrated Environmental Health and Safety (EHS) policy, while Brock University (2022) has a separate OHS Policy. The following is a discussion on the design of OHS policies for Canadian universities:

3.7.3.2.1 Health and safety policy statement

Employers in Canadian universities demonstrate the acceptance of their legal mandate to create and maintain a healthy and safe environment by committing to appropriate courses action which, when taken, have the potential to alleviate occupational hazards and risks. The commitments focus on purpose of the policy, policy scope, intentions, and objectives, among others. These are discussed below.

Purpose of the policy: Primarily, the purpose of OHS policies in Canadian universities is to meet their legal mandate as prescribed in Canadian legislation. Specifically, policies have been developed to establish an OHS culture, eliminate and/or control occupational hazards and risks, minimise occupational accidents and diseases, and explain OHS responsibilities at all levels of the organisation (Trent University, 2018; Carleton University, 2021; Capilano University, 2021; University of Victoria, 2021; Brock University, 2022; MacEwan University, 2017; University of Toronto, 2022; University of Calgary, 2022). For example, the purpose for the OHS policy at Carleton University is to meet the legal obligations as provided for in the Canadian OHS legislation (Carleton University, 2021).

Scope of the policy: Legally, employers in Canada are charged with the responsibility to protect any individual who is exposed to their work environment (Occupational Health and Safety Act of 2004b). As such, OSH policies for Canadian universities provide for the protection of board members, all categories of workers, volunteers, students, visitors, and contractors, among others (Trent University, 2018; Carleton University, 2021; Capilano University, 2021; University of Victoria, 2021; Brock University, 2022). For instance, the OHS policy for Capilano University commits to safeguarding the health and safety of all members of the University community including visitors, contractors, and subcontractors (Capilano University, 2021).

Statement of intent: In keeping with their legal mandate to provide a healthy and safe working environment, universities in Canada have committed to exceeding OHS legal and other requirements, creating a healthy and safe teaching and learning environment, integrating OHS into the core management system, identifying hazards and risks, preventing occupational accidents and diseases, adopting best practices in OHS, allocating OHS responsibilities at all levels of the organisation, and collaborating with workers and other stakeholders in OHS management (Carleton University, 2021; Capilano University, 2021; University of Victoria, 2021; Brock University, 2022; MacEwan University, 2017; University of Toronto, 2022). For example, Brock University is committed to creating a working environment that is healthy and safe for all university members and one that is free from all forms of violence and harassment (Brock University, 2022).

Responsible officer(s): Ultimate OHS responsibility in Canadian universities is placed on the Board of Governors who are legally mandated to provide policy direction (University of British Columbia, 1908; University of Manitoba, 1988). Given that Board of Governors are not involved in the day-to-day activities, their main role is to approve OHS policies and then delegate the day-to-day management of OHS to senior executive officers such as presidents, vice-presidents, and VCs (University of Manitoba, 1988). As such, in most universities, OHS responsibility is placed on the CEO of a university such as the president and VC (Trent University, 2018; Carleton

University, 2021; Capilano University, 2021; University of Victoria, 2021; Brock University, 2022; MacEwan University, 2017; University of Toronto, 2022, University of Calgary, 2022).

Policy review period: Canadian universities review their OHS policies at least annually as required by OHS legal requirements. For example, the current OHS policy for Brock University was approved in October 2022 and its review has been slated for October 2023 (Brock University, 2022). However, a university may review its OHS policy as and when key legal and other requirements change. For example, the University of Calgary states that its EHS policy is subject to a review whenever laws pertaining to environmental management and OHS are updated (University of Calgary, 2022).

Definitions: In keeping with the requirement that a policy must be easily understood by all relevant stakeholders, OHS policies for Canadian universities provide definitions of key terms and concepts. Common definitions include work environment, incident, near miss, accident, hazard, risk, work environment, department, and safety. Categories of individuals such as Boards of Governors, management, workers, students, visitors, and contractors are also defined (Trent University, 2018; Carleton University, 2021; Capilano University, 2021; University of Victoria, 2021; Brock University, 2022; MacEwan University, 2017; University of Toronto, 2022; University of Calgary, 2022). Each university defines terms and concepts in a manner that is appropriate to its context. As such, the definition of some concepts varies from one university to another. For example, the University of Victoria (2021) defines a student as “*a person who is registered, enrolled, or participating in any course or programme offered by the University*” whereas to the Capilano University (2021), a student “*means an individual enrolled in any course (credit or non-credit) at the University.*” Therefore, while this will help CHAU to identify the key terms to be defined, the University must come up with its own appropriate definitions.

3.7.3.2.2 Organisation of health and safety

In order to facilitate the implementation of their OHS policies, universities in Canada have allocated OHS responsibilities to all levels of their organisational structures. Furthermore, students, visitors, and contractors have also been allocated health and safety responsibilities. Generally, OHS responsibilities have been allocated as follows:

Governing body: In Canada, the majority of universities are governed by a Board of Governors in accordance with higher education legislation. With regard to OHS, Boards are charged with the duty to provide policy direction and ensure that all legal and other requirements are adhered to (University of British Columbia, 1908; University of Manitoba, 1988). As such, a Board has the prerogative to approve a university’s OHS policy (Trent University, 2018; Carleton University, 2021; Capilano University, 2021). In the Zambian context, the equivalent of the Board of

Governors is the university Council as established by the Higher Education Act of 2013 as amended by the Higher Education (Amendment) Act of 2021.

Chief Executive Officer (CEO): The President or VC is the CEO of universities in Canada, and they are appointed by a university Board of Governors (University of British Columbia, 1908; University of Manitoba, 1988). The Board delegates its authority to the CEO and charges them with the responsibility to oversee overall OHS management and implementation of all OHS systems, programmes, and standards. Their specific responsibilities include, but not limited to, guiding the development and annual review of OHS policies, establishing joint OHS committees, integrating OHS in overall university management, and providing appropriate resources such as skilled personnel and finances (Trent University, 2018; Carleton University, 2021; Capilano University, 2021; University of Victoria, 2021; Brock University, 2022; MacEwan University, 2017; University of Toronto, 2022; University of Calgary, 2022).

Top management: Deputy President, DVCs, Deans, and Directors fall under this category. They provide OHS leadership and support to individuals under their control. Their specific duties include, but are not limited to, monitoring OHS performance, ensuring compliance to OHS regulations, providing appropriate OHS training, allocating relevant resources to support improvement in OHS (Trent University, 2018; Carleton University, 2021; Capilano University, 2021; University of Victoria, 2021; Brock University, 2022; MacEwan University, 2017; University of Toronto, 2022; University of Calgary, 2022).

OHS officer(s): Some universities including Capilano University (2021), University of Victoria (2021), and the University of Calgary (2022) have a dedicated health and safety officer. Generally, their responsibilities include the following: conducting OHS-related inspections, audits, and investigations; providing technical support to joint OHS committees; designing and scheduling OHS training and sensitisation; guiding the development of OHS programmes, and interpreting OHS legal and other mandates (Trent University, 2018; Carleton University, 2021; Capilano University, 2021; University of Victoria, 2021; Brock University, 2022; MacEwan University, 2017; University of Toronto, 2022; University of Calgary, 2022).

Middle level managers: These include heads of department and their responsibilities include the following: sensitising staff and students on prevailing hazards and risks; explaining legal and other requirements to their supervisees; reporting all incidents, near misses and accidents; and ensuring that employees have adequate PPEs (Trent University, 2018; Carleton University, 2021; Capilano University, 2021; University of Victoria, 2021; Brock University, 2022; MacEwan University, 2017; University of Toronto, 2022; University of Calgary, 2022).

Joint OHS Committees: As is legally required for any employer with twenty or more workers in Canada, universities have established Joint OHS Committees consisting of representatives from

management and workers. Their responsibilities include: collaborative accident investigations; advising employers on measures to improve OHS; collaborative identification of hazards and risks; and keeping OHS records pertaining to the university (Trent University, 2018; Carleton University, 2021; Capilano University, 2021; University of Victoria, 2021; Brock University, 2022; MacEwan University, 2017; University of Toronto, 2022; University of Calgary, 2022).

Employees/volunteers/students/visitors: Generally, the responsibilities of the aforesaid categories of individuals are similar as their major responsibilities are anchored on complying with all the OHS regulations, processes, and procedures in the university (Trent University, 2018; Carleton University, 2021; Capilano University, 2021; University of Victoria, 2021; Brock University, 2022; MacEwan University, 2017; University of Toronto, 2022; University of Calgary, 2022).

Contractors: The OHS responsibilities of contractors are stipulated in Canadian legislation. In accordance with the OHS laws, contractors in Canadian universities are required to establish up-to-date OHS programmes as stated by the law, promote health and safety practices among their workers, and adhere to the university's OHS processes and procedures (Trent University, 2018; Carleton University, 2021; Capilano University, 2021; University of Victoria, 2021; Brock University, 2022; MacEwan University, 2017; University of Toronto, 2022; University of Calgary, 2022).

3.7.3.2.3 Arrangements for health and safety

Universities in Canada have already established a number of the arrangements needed to implement their OHS policies. As such, their policies refer to existing processes and procedures. These have been developed in line with the legal provisions provided by the federal or provincial governments of Canada. In view of the foregoing, it is imperative to state that the development of arrangements at CHAU will also have to be guided by Zambian legislation where they exist. The following are the arrangements that Canadian universities have established:

Processes and procedures: These include mechanisms for hazard and risk assessment, emergency planning and response, accident and incident reporting, and accident investigation (Trent University, 2018; Carleton University, 2021; Capilano University, 2021; University of Victoria, 2021; University of Toronto, 2022; University of Calgary, 2022).

Disciplinary action: These include dismissal of employees who fail to meet their OHS obligations (Carleton University, 2021; University of Toronto, 2022).

Communication: Strategies include using websites to post policies, emergency contact details, and any other relevant OHS information (Trent University, 2018; Carleton University, 2021;

Capilano University, 2021; University of Victoria, 2021; Brock University, 2022, MacEwan University, 2017; University of Toronto, 2022; University of Calgary, 2022).

Consultation and collaboration: OHS committees have been established to promote collaboration between employers and employees as provided for by the law. Committees for specific functions such as risk management and emergency preparedness also exist (Trent University, 2018; Carleton University, 2021; Capilano University, 2021; University of Victoria, 2021; Brock University, 2022; MacEwan University, 2017; University of Toronto, 2022; University of Calgary, 2022).

Off campus OHS framework: This provides guidance to workers and students operating outside university premises including those conducting field research (University of Toronto, 2022)

Legal requirements: These include legislation focusing on OHS management, fire management, nuclear safety, radiation protection, environmental protection, public health, and biological and chemical hazards management, among others (Trent University, 2018; Carleton University, 2021; Capilano University, 2021; University of Victoria, 2021; Brock University, 2022; MacEwan University, 2017; University of Toronto, 2022; University of Calgary, 2022).

Related policies: The OHS policies for Canadian universities are guided by other policies such as alcohol and drug abuse, harassment and sexual violence, smoking, weapons on campus, snow management, vehicles on campus, domestic animals on campus, and children on campus (Carleton University, 2021; University of Victoria, 2021; University of Calgary, 2022).

The review of health and safety policies from Canadian universities revealed that most of the policies conform to best practices. This is important because it informs the study on how a university such as CHAU can structure and design its OHS policy. However, the contents of these policies cannot be used to develop an OHS policy for CHAU because every university must develop its own policy that is appropriate for its size, type, and nature. Additionally, the policy for CHAU must be informed by Zambian laws and not those of any other country.

3.7.3.3 English experience

Generally, universities in England are compliant with the Health and Safety at Work etc Act of 1974, which requires employers with five or more employees to develop and implement a written OHS policy. Furthermore, the structure of the OHS policies developed by universities are in line with the structure recommended by the Health and Safety Executive (HSE), which is the institution responsible for OHS in the UK (HSE, 2018). The structure is discussed below.

3.7.3.3.1 Health and safety policy statement

Generally, the health and safety policy statement for English universities contains the following:

Purpose of the policy: Overall, English universities have similar reasons for developing an OHS policies. These include, but not limited to, establishing and implementing a sustainable framework for alleviating workplace hazards and risks, complying with the Occupational Health and Safety etc Act of 1974, demonstrating top management's resolve to prioritise OHS, expressing top management's desire to exceed minimum legal and other requirements, and complying with the moral obligation for employers to safeguard the health and safety of workers (University of Huddersfield, 2018:1; Aston University, 2021:3; University of Cambridge, 2022:5).

Scope of the policy: The policies apply to all categories of workers, students, visitors, contractors, and tenants. Furthermore, the policies apply to work undertaken on campus, off campus, and outside the UK (University of Huddersfield, 2018:2; University of Birmingham, 2020:23-24; Aston University, 2021:3; University of Cambridge, 2022:6). For example, the OHS policy for Durham University (2021:2) states that the OHS policy applies *"to all Durham University students, irrespective of their status and all employees, regardless of level, grade, full-time, part-time, contractually substantive, fixed-term, agency-appointed, voluntary, location (on-site, off-site, local, national or international), or whether their workplace is owned or operated by the University or not."* Work involving travelling within or outside the UK is subjected to appropriate risk assessments, ethical approval processes, and travel policy requirements (University of Birmingham, 2020:23-24).

Statement of intent: In an effort to provide a healthy and safe working and learning environment, English universities have committed to providing adequate resources for OHS improvement, alleviating hazards and risks, establishing effective channels of communication and consultation with key stakeholders such as staff and students, promoting excellence in OHS management, continuous improvement in OHS management, building a university-wide OHS culture, and countering risks with proportionate remedies (University of Huddersfield, 2018:2; University of Birmingham, 2020:1,3,5; Aston University, 2021:4; Durham University, 2021:1; University of Essex, 2021:2; Staffordshire University, 2022:2).

Responsible officer(s): In line with UK health and safety laws, the ultimate responsibility for OHS in universities lies with the governing bodies and CEOs. For example, the Board of Governors and the VC are accountable for health and safety at the University of Essex (2021:2), the University of Manchester (2021:4), and the University of Cambridge (2022:7).

Policy review period: The review period for university OHS policies in England varies between one year and three years. Durham University (2021:4) and the University of Manchester (2021:3) review their policies annually, whereas the University of Cambridge (2022:7) reviews its policy after three years. However, major changes in legal and other requirements can prompt a university to review its policy earlier than the scheduled review date (University of Manchester, 2021:4). Normally, the responsibility to review the OHS policy is placed on a specific office or committee. For instance, at the University of Manchester (2021:3), the Health, Safety, and Well-being Committee is responsible for reviewing the University's OHS policy.

Definitions: To facilitate easier understanding by stakeholders, universities in England have defined the key terms used in their policies. The common terms defined are university, near miss, incident, injury, illness, hazard, continual improvement, monitoring, audit, and continual improvement (Durham, 2021:3-4).

Objectives: The common objectives for OHS policies among English universities include, but not limited to, achieving a healthy and safe working and learning environment, integrating OHS in overall university management, implementing a sustainable OHSMS anchored on continual improvement, complying to legal and other requirements, and promoting university-wide acceptance of individual responsibility for OHS (University of Huddersfield, 2018:2; University of Birmingham, 2020:3; Durham University, 2021:1; Staffordshire University, 2022:3; University of Cambridge, 2022:5).

3.7.3.3.2 Organisation of health and safety

To necessitate the implementation of their OHS policies, universities in England have allocated appropriate responsibilities and authority to governing bodies, top management, lower level managers, workers, students, visitors, contractors, and students. Furthermore, universities have also established committees for specific OHS responsibilities. Generally, English universities have allocated OHS responsibilities as follows:

Governing body: In England, universities are either governed by a Board of Governors or a Council. They are responsible for providing strategic OHS direction and ensuring that resources are made available for developing and implementing health and safety policies, processes, and procedures. Furthermore, they are responsible for ensuring that OHS management in their respective universities is in conformity with all legal requirements (University of Huddersfield, 2018:3; University of Essex, 2021:11; University of Manchester, 2021:4; Staffordshire University, 2022:3-4). Ultimately, they are accountable for OHS in a university. Given that they are not directly involved in the day-to-day management activities, they appoint a CEO to whom they delegate their functions.

CEO: In most universities in England, the CEO is the VC who reports to the university's governing body (University of Essex, 2021:11-12; University of Cambridge, 2022:17). As CEO, the VC is ultimately responsible for the day-to-day management of OHS in a university (Staffordshire University, 2022:3-4; University of Cambridge, 2022:17). The OHS responsibilities of the VC include, but not limited to, overseeing the establishment of an OHS policy and its management system, integrating OHS in overall university management, securing adequate resources for OHS management, allocating OHS responsibilities across the entire university, and continuous monitoring of OHS performance (University of Huddersfield, 2018:3; Durham University, 2021:10-12; University of Essex, 2021:11-12; Staffordshire University, 2022:3-4; University of Cambridge, 2022:17).

Top management: Generally, these include DVCs, Directors, and Deans (Aston University, 2021:6-8; University of Essex, 2021:11-14; University of Cambridge, 2022:16). They are accountable to the CEO and are responsible for providing leadership and spearheading the implementation of OHS policies, processes, and procedures in colleges, faculties, and units over which they are in charge (University of Essex, 2021:11-14; University of Cambridge, 2022:16). Specifically, they are responsible for securing adequate resources for OHS in their area of control, effective communication of OHS information, hazard and risk assessment, accident investigation, and compilation of reports on accidents, injuries, near misses, and incidents (Aston University, 2021:6-8; University of Essex, 2021:11-14; University of Cambridge, 2022:16).

OHS Director: Some universities have established a Directorate headed by a Director who reports to the CEO. Such a Director is responsible for coordinating OHS activities in the entire institution. For example, Aston University (2021:7-8) has a Director of Health, Safety, and Business Continuity who is responsible for OHS collaboration among colleges, faculties, and units within the University (Aston University, 2021:8). Furthermore, the Director is responsible for developing, implementing, monitoring, and auditing the University's OHSMS.

Director of estates: Universities in England have a unit responsible for managing the university estate and its premises. Normally, this unit is headed by a Director who is responsible for ensuring that all premises owned by the university are conducive for working, teaching, research, and learning. For instance, at the University of Huddersfield (2018:4), Staffordshire University (2022:7), the University of Cambridge (2022:15) there is a Director of Estates and Facilities, Director of Estates and Commercial Services, and Director of Estates Division respectively.

Middle level managers: These include heads of departments, managers of units, and supervisors. They are responsible for ensuring that the OHSMS is implemented in the units and departments they are heading (Aston University, 2021:8; University of Essex, 2021:11-14; University of Cambridge, 2022:16). Their specific responsibilities include, but not limited to, securing adequate

resources from Deans and Directors, providing adequate OHS information to their supervisees, facilitating risk assessments and accident investigations, and conducting training needs analysis (Aston University, 2021:8; University of Essex, 2021:11-14).

Hazard specific officers: Universities that make use of highly hazardous materials and substances have appointed experts to provide technical support and guidance on how to control exposure to specific hazards. For example, at Durham University (2021:13-14), they have the following: Departmental Laser Safety Officer, Radiation Protection Officer, and University Biological Safety Advisor, among others.

OHS coordinators: These are normally appointed by heads of department from among the staff to coordinate OHS management at departmental level (University of Huddersfield, 2018:12). They are responsible for providing OHS information to their peers and compiling reports relating to accidents, injuries, incidents, near misses, and defective PPEs, among others. Furthermore, they are responsible for monitoring adherence to OHS at departmental level (University of Huddersfield, 2018:12).

Employee representatives: Union as well as non-union representatives have a responsibility to participate in all OHS consultation processes and to ensure that their members adhere to all OHS requirements (University of Huddersfield, 2018:9; University of Essex, 2021:1,6; University of Cambridge, 2022:23). Furthermore, they have a responsibility to ensure that their bargaining tactics and collective agreements do not compromise the health and safety of their members and others within the university community (University of Huddersfield, 2018:9; University of Cambridge, 2022:23).

Workers/students/visitors: Generally, the responsibilities for workers, students, and visitors are similar. They are all responsible for their own health and safety and that of others in the university (University of Birmingham, 2020:17; University of Essex, 2021:6). As such, they are responsible for complying with the OHS policy and any other related processes and policies including road usage and waste disposal, among others. Furthermore, it is their responsibility to report all hazards, risks, injuries, accidents, and defective machines, equipment, and PPEs (University of Huddersfield, 2018:5; University of Birmingham, 2020:17; University of Essex, 2021:6; University of Cambridge, 2022:10).

Student union: Some universities have placed OHS responsibilities on student unions. These include complying with the university OHS policy, developing their own OHSMS, and providing annual feedback on the status of their OHSMS (University of Cambridge, 2022:23).

Contractors: They are responsible for complying with all university OHS processes and procedures. Additionally, it is their responsibility to ensure that they comply with national OHS

legislation to protect their workers on university premises. They are also responsible for reporting any hazards, risks, and injuries occurring during the course of their work in the university (University of Huddersfield, 2018:6; Aston University, 2021:11-13).

OHS Committees: Universities in England incorporate the committee system in OHS management. The number, size, and responsibilities of these committees will vary from one university to another. In line with the law, most universities have established a joint OHS committee, which is primarily responsible for facilitating consultation and collaboration with staff and students (Aston University, 2021:12-13; University of Cambridge, 2022:18). Furthermore, some universities, especially those dealing with highly hazardous substances have established hazard specific committees to provide expert guidance on how to manage hazards. For example, the University of Birmingham (2020:7), University of Essex (2021:18), and Staffordshire University (2022:10-13) have separate committee responsible for biological hazards, chemical hazards, and radiation hazards.

3.7.3.3.3 Arrangements for health and safety

Given that a number of universities in England have developed and implemented their OHS policies, they have in place numerous arrangements. These include, but are not limited to the following:

OHSMS: Most universities in England have adopted a health and safety management system. For example, Durham University (2021:3) and the University of Cambridge (2022:25) both have an OHSMS anchored on the PDCA model.

Processes and procedures: English universities have established processes and procedures focusing on the following: accident and incident reporting, lone working, hazard and risk identification and assessment, site inspection, COVID-19 prevention, OHS policy review, working at height, contract management, field work and overseas visits, new and expecting mothers, events on campus, and OHS monitoring and auditing (University of Birmingham, 2020:7-9; Aston University, 2021:14; University of Essex, 2021:20; University of Manchester, 2021:2).

Training programmes: A number of training programmes have been established in English universities. These include, but are not limited to, OHS competence training, fire management training, hazardous material and substance handling training, PPE usage training, and first aid training (University of Birmingham, 2020:7-9; Aston University, 2021:14; University of Essex, 2021:20; University of Manchester, 2021:2; University of Cambridge, 2022:20-22).

Emergency preparedness: Universities in England have made significant efforts to be prepared for emergencies. Efforts include fire evacuation drills, emergency exit signs, and firefighting

equipment (University of Huddersfield, 2018:15; Durham University, 2021:20-24; University of Essex, 2021:20; Staffordshire University, 2022:17).

Related policies: OHS policies for universities in England are supported by a number of policies focusing on matters related to OHS such as physical and sexual violence, environmental health, public health, road safety, young people and vulnerable adults, smoking, and stress, among others (University of Huddersfield, 2018:17; University of Birmingham, 2020:26-27).

Communication: Universities in England have aptly used information technology (IT) to facilitate effective communication of OHS information, COVID-19 alert, and introduction of new procedures. As such, most policies refer stakeholders to university websites for more information on OHS policies, processes, and procedures (University of Huddersfield, 2018:15,17,21; Durham University, 2021:20-24; University of Essex, 2021:20; Staffordshire University, 2022:17).

Consultation: With regard to consultation, universities have established joint OHS committees in line with English OHS laws (Aston University, 2021:12-13; University of Cambridge, 2022:18).

Legal requirements: Generally, the OHS policies for universities in England are guided by the Health and Safety etc Act of 1974, which provides the duties for employers, among others. Other laws include, but are not limited to, Safety Representatives and Safety Committees Regulations 1977, Reporting of Injuries, Diseases and Dangerous Occurrences Regulations, Control of Asbestos Regulations 2012, Health and Safety (Safety Signs and Signals) Regulations 1996, Personal Protective Equipment at Work Regulations 1992, Control of Substances Hazardous to Health (CoSHH) Regulations 2002, Electricity at Work Regulations 1989, Ionising Radiation Regulations 2017, and Health and Safety (Sharp Instruments in Healthcare) Regulations 2013 (Durham University, 2021:31).

The English universities have provided valuable information on how a health and safety policy for a university can be designed. However, their experiences are different from Zambian universities. As such, their policies cannot inform this study on the actual content of the CHAU health and safety policy. This limitation will be addressed by conducting research to collect data that is appropriate to the experiences of Zambia in general and CHAU in particular.

3.7.3.4 Hong Kong experience

In a number of universities in Hong Kong, OHS policies are not accessible via the internet. As such, only policies from Chinese University of Hong Kong and University of Hong Kong were accessible. The design of OHS policies for universities in Hong Kong is explained below.

3.7.3.4.1 *Health and safety policy statement*

Universities in Hong Kong have used their policy statements to express their commitment to managing OHS. The policy statement for their OHS policies generally includes the following:

Mission: Universities in Hong Kong prioritise OHS and place it at the same level with research and teaching (Chinese University of Hong Kong, 2014:1). Furthermore, they are committed to developing a university-wide sustainable OHS culture. Thus, OHS is an integral part of strategic planning in Hong Kong universities (Chinese University of Hong Kong, 2014:1).

Scope of the policy: The policies cover all workers, students, and visitors. Additionally, the policies cover both on and off-campus sites where workers and students are conducting official university business (University of Hong Kong, 2019).

Statement of intent: Hong Kong universities are committed to safeguarding the health and safety of all workers, students, and visitors by establishing an OHS policy that promotes the highest level(s) of health and safety management (University of Hong Kong, 2019). Specifically, they are committed to complying with all legal requirements, identifying hazards and risks, and effective consultation, communication and cooperation with key stakeholders (University of Hong Kong, 2019).

3.7.3.4.2 *Organisation of health and safety*

Hong Kong universities champion a shared day-to-day OHS responsibility among workers, students, visitors, and contractors. As such, disciplinary action can potentially be instituted against erring members. Generally, OHS responsibilities are distributed as follows at universities in Hong Kong:

Governing body: The Council is responsible for governing universities in Hong Kong, and it is responsible for ensuring that an OHS policy is in place and adheres to all legal requirements (University of Hong Kong, 2019).

CEO: The VC is ultimately accountable for OHS in Hong Kong universities and is responsible for ensuring that OHS responsibilities are allocated and effectively communicated to everyone in the university (University of Hong Kong, 2019). Additionally, the VC is responsible for ensuring that adequate resources are allocated to implement and improve OHS in the university (University of Hong Kong, 2019).

Top management: These include DVCs, Deans, and Directors and they are responsible for implementing the OHS policy in their units (Chinese University of Hong Kong, 2014:1-2).

Specifically, they are responsible for securing adequate resources for OHS implementation, consulting with key stakeholders, conducting risk assessments and accident investigations, reporting accidents and injuries to the CEO, and setting up OHS committees in their units (Chinese University of Hong Kong, 2014:1-2).

OHS Director: At the Chinese University of Hong Kong (2014:3) there is a Director in charge of the OHS unit and is responsible for providing regular OHS reports to the CEO. The Director is also responsible for advising the university on the legal requirements and monitoring university-wide adherence to OHS (Chinese University of Hong Kong (2014:3).

OHS Coordinators: These are appointed by Heads of Department to facilitate the day-to-day implementation and review of OHS in their units (Chinese University of Hong Kong, 2014:7).

Security officer: Responsible for security and road management (Chinese University of Hong Kong, 2014:3).

Transport officer: Responsible for managing university bus operations (Chinese University of Hong Kong, 2014:3).

Estates management officer: Responsible for ensuring that all university premises are healthy and safe as well as making sure that safety signs and symbols are mounted across the university (Chinese University of Hong Kong, 2014:3; University of Hong Kong, 2019).

University health officer: Responsible for first aid training, advising top management on OHS policies, and conducting university-wide health surveillance (Chinese University of Hong Kong, 2014:3; University of Hong Kong, 2019).

Laboratory officer: Responsible for developing OHS procedures for staff, students, and researchers. Additionally, they are responsible for conducting risk assessments in laboratories and reporting all accidents, incidents, and injuries (Chinese University of Hong Kong, 2014:4).

OHS committees: Universities in Hong Kong have OHS committees for various purposes including consultation and hazard management (Chinese University of Hong Kong, 2014:7; University of Hong Kong, 2019). For example, at the Chinese University of Hong Kong (2014:12), there are separate committees focusing on biological hazards, chemical hazards, and radiation hazards.

3.7.3.4.3 Arrangements for health and safety

The arrangements that Hong Kong universities intend to embark on to support the implementation of their OHS policies include the following:

Adherence to all Hong Kong and Mainland China legal requirements (University of Hong Kong, 2019).

Regular review of the OHS policy to promote continual improvement and to stay abreast with new developments in legal and other requirements (University of Hong Kong, 2019).

Effective consultation and communication using committees and websites, respectively (University of Hong Kong, 2019).

Establishing systems for OHS monitoring and auditing (University of Hong Kong, 2019).

Introduction of hazards and risk identification procedures (University of Hong Kong, 2019).

Hong Kong universities have developed health and safety policies in line with their legal duties and specific university context. Therefore, the information they provide cannot be used to develop an appropriate OHS policy for CHAU. Consequently, this gap will be filled by collecting information that will bring to the fore the context of CHAU and its legal obligations so as to develop an OHS policy that is appropriate for the University.

3.7.3.5 United Arab Emirates experience

OHS policies for the majority of universities in the United Arab Emirates (UAE) are inaccessible from their websites. Only those for Khalifa University, UAE University (UAEU), and Zayed University were accessible. The design of the OHS policies for the said universities is discussed hereunder.

3.7.3.5.1 Health and safety policy statement

The OHS policy statement for UAE universities generally contains the following:

Purpose of the policy: Universities in the UAE have developed OHS policies in order to enlighten workers, students, visitors, volunteers, and contractors on how health and safety will be managed (UAEU, 2015:1). Furthermore, the policies have been developed to safeguard the physical and mental well-being of the university community (Zayed University, 2019:1).

Scope of the policy: OHS policies for UAE universities have a university-wide coverage. They cover all staff, students, visitors, volunteers, and contractors (UAEU, 2015:1; Zayed University, 2019:1).

Statement of intent: Universities in the UAE are committed to building a university-wide OHS culture that promotes sustainable health and safety management (UAEU, 2015:1; Zayed

University, 2019:1). Furthermore, they are committed to providing adequate OHS resources and protecting the environment (UAEU, 2015:1; Khalifa University, 2018:1).

Responsible officer(s): In the UAE, top managers are responsible for OHS in universities. For example, at UAEU (2015:1) the responsible officer for OHS is the DVC for Finance and Administration Affairs. At Khalifa University (2018:1) the Executive Vice-President is responsible for OHS. At Zayed University (2019:1) the officer responsible for OHS is the Provost.

Policy review period: The review period for policies in UAE universities vary. At UAEU (2015:2) the OHS policy is reviewed annually, while at Zayed University (2019:1) it is reviewed every three years. For example, the current Health, Safety, and Environment policy at Zayed University (2019:1), which was effected on 17th October 2019 was scheduled to be reviewed on 17th October 2022.

Objectives/aims: The general objective of OHS policies in UAE universities is to create a sustainable OHSMS that is continuously improving the performance of OHS (UAEU, 2015:1).

3.7.3.5.2 Organisation of health and safety

The organisation of OHS responsibilities at UAE universities is structured as follows:

Governing body: Universities in the UAE are governed by a Council or Board of Trustees. The UAEU (2015) and Khalifa University (2018) are each governed by a Board of Trustees, whereas the Zayed University (2019:2) is governed by a Council. These have the responsibility to provide overall direction for a university's OHS management (Zayed University, 2019:2). They are also responsible for approving the OHS policy, which they believe is in conformity with all legal and other requirements (Zayed University, 2019:2).

CEO: Presidents and VCs are ultimately responsible for OHS and serve as the CEO of universities in the UAE. For example, the CEO at Zayed University (2019:2) is the president. The responsibility of the CEO is to ensure that the OHS policy and related processes and procedures are in place (Zayed University, 2019:2).

Top management: These include Vice-Presidents, Deans, and Directors. These are responsible for ensuring that the university's OHS policy is effectively implemented in the units under their management (UAEU, 2015:1).

EHS Director: The responsibility to implement, coordinate, monitor, and review the OHS policy and its system are placed on the EHS Director who reports directly to the CEO (UAEU, 2015:1).

Workers, students, contractors, and visitors: Generally, they are all responsible for their own health and safety, including that of others (UAEU, 2015:1).

3.7.3.5.3 Arrangements for health and safety

To support the policy and its management system, UAE universities have pledged to do the following:

Regular review of the OHS and its management system. This ensures that there is continuous improvement of OHS management in a university (UAE University, 2015:1).

Comply with the provisions of the “Abu Dhabi Occupational Safety and Health System Framework (OSHAD-SF) and other relevant legislation and industry standards” (Khalifa University, 2019:1).

Identifying hazards, assessing their risk level and developing proportionate measures to counter them (UAE University, 2015:2).

Regular maintenance of university campuses, machines, and equipment to ensure that they are safe at all times (UAE University, 2015:2).

Providing regular OHS training to all key stakeholders (UAE University, 2015:2).

Consultation and communication to all key stakeholders (Khalifa University, 2018:1).

Providing adequate medical facilities (Zayed University, 2019:2).

Establishing related policies to support the OHS policy: These include, but not limited to, student’s complaint policy, students with disability policy, and use of university property and facilities policy (Zayed University, 2019:2).

The experiences from UAE universities are important because they demonstrate how a university’s health and safety policy can be designed. However, they do not provide appropriate information for the development of an OHS policy for CHAU. Therefore, the researcher needs to collect information appropriate for CHAU.

3.7.3.6 United States of America experience

In the United States of America (USA), universities have demonstrated strong commitment to safeguarding the health and safety of everyone who comes in contact with their premises by developing comprehensive and proactive OHS policies. While the policies generally have a similar structure, some universities have adopted an integrated EHS policy (Binghamton University,

2021) and others have developed a standalone health and safety policy (Oregon State University, 2021). The general design of OHS policies for USA universities is discussed below.

3.7.3.6.1 Health and safety policy statement

The key components of OHS policy statement for USA universities include the following:

Purpose of the policy: Overall, universities have developed OHS policies to ensure that all their working and learning activities, as well as their facilities are healthy and safe (Binghamton University, 2021; Illinois State University, 2021; Oregon State University, 2021). This is aimed at ensuring that the well-being of their staff, students, visitors, and contractors is safeguarded. Furthermore, OHS policies have been developed to provide a framework for managing EHS (Binghamton University, 2021; Illinois State University, 2021; Oregon State University, 2021).

Scope of the policy: The policies are comprehensive and applicable to all faculty, staff, students, visitors, contractors, and volunteers (Binghamton University, 2021; Illinois State University, 2021; Oregon State University, 2021). For instance, at Oregon State University (2021), the “*policy applies to all university faculty, staff, students, contractors, visitors, and volunteers operating in an official university capacity or participating in university activities.*”

Statement of intent: Universities in the USA have committed to the following: Creating a healthy and safe working and learning environment for staff and students; alleviating workplace hazards and risks; preventing environmental degradation; protecting university property and resources; creating a university-wide health and safety culture; and adhering to federal, state, and local OHS laws (University of Connecticut, 2018; Binghamton University, 2021; Oregon State University, 2021; Utah State University, 2022).

Responsible officer(s): CEOs and top level managers are generally responsible for OHS in USA universities. For example, at Oregon State University (2021), the responsibility for OHS lies with the Vice-President. At Kansas University (2020), the Provost and Executive Vice-President is the responsible officer for OHS. At Binghamton University (2021), the President is ultimately responsible for OHS.

Policy review period: Universities in the USA generally review their OHS policies annually. However, an earlier review is possible when there are substantial changes to the legal and other requirements (Kansas University, 2020).

3.7.3.6.2 Organisation of health and safety

USA universities have allocated OHS responsibilities to staff members, students, visitors, and contractors to ensure the effective implementation of their OHS policies. Generally, OHS in USA universities has been organised as discussed below.

Governing body: Every public university in the USA is governed by its own Board of Trustees, which provides strategic direction and leadership in OHS management. The Board is responsible for ensuring that an OHS policy is in place and conforms to the legal and other requirements (University of Connecticut, 2018; Virginia Polytechnic Institute and State University, 2019; Binghamton University, 2021; Oregon State University, 2021). The Board of Trustees is also responsible for delegating its authority to the CEO to oversee the day-to-day management of OHS (Binghamton University, 2021).

CEO: The CEO for USA public universities is the President who is appointed by the Board of Trustees and is ultimately responsible for the daily management of health and safety (Binghamton University, 2021; Oregon State University, 2021; Utah State University, 2022). The CEO is responsible for delegating authority and responsibilities at every level of the university to ensure effective implementation of the OHS policy and its OHSMS. Consequently, the CEO is responsible for ensuring that everyone in the university is aware of their OHS responsibilities (Binghamton University, 2021; Oregon State University, 2021; Utah State University, 2022). It is also the responsibility of the CEO to provide adequate resources for OHS policy implementation.

Top management: These include Vice-Presidents, Deans, and Directors. They report directly to the CEO and are responsible for the implementation of the OHS policy in the units under their control (Binghamton University, 2021; Oregon State University, 2021; Utah State University, 2022). As such, they are responsible for providing OHS leadership in their colleges, faculties, institutes, and units (Binghamton University, 2021; Oregon State University, 2021; Utah State University, 2022). They are also responsible for overseeing monitoring and auditing of OHS performance in their units. Furthermore, they are also responsible for the organisation of OHS training and securing adequate resources necessary for OHS improvement in their units (Binghamton University, 2021; Oregon State University, 2021; Utah State University, 2022). In most cases, they are responsible for establishing appropriate committees to coordinate OHS activities in the units under their control (Binghamton University, 2021; Oregon State University, 2021; Utah State University, 2022).

EHS unit: Responsible for coordinating and implementing all OHS policies, processes, and procedures (University of Connecticut, 2018). Additionally, the unit is responsible for university-

wide EHS training, consultation, reviewing, auditing as well as creating and maintaining an active OHS website (University of Connecticut, 2018).

Middle level managers: Heads of department and unit managers fall under this category. These are responsible for ensuring that the OHS policy is implemented in their departments and units (Binghamton University, 2021; Oregon State University, 2021; Utah State University, 2022). Their specific responsibilities include, but are not limited to, facilitating OHS training needs analysis, providing adequate information to workers and students under their supervision, informing top management about the required resources for OHS implementation, appointing OHS representatives, and monitoring adherence to OHS regulations (Binghamton University, 2021; Oregon State University, 2021; Utah State University, 2022).

Laboratory supervisors: They are responsible for establishing laboratory standards that staff, students, and researchers must adhere to. Furthermore, they take part in accident and incident investigations as well as arranging appropriate OHS training (Utah State University, 2022).

OHS committees: US universities also use committees to implement their OHS policies. The major committees, which have been established are those focusing on collaboration and consultation, as well as those focusing on the management of specific hazards such as the Radiation Safety Committee and the Chemical Safety Committee at Oregon State University (2021).

Staff/students/visitors/contractors: Generally, their overall responsibility is to comply with all OHS policies, regulations, processes, and procedures. They are also responsible for their own health and safety and that of others. Among their responsibilities is the requirement to report all hazards and risks, accidents, and incidents (Oregon State University, 2021).

3.7.3.6.3 Arrangements for health and safety

Universities in the USA have put in place a number of arrangements to aid the implementation of their OHS policies. Their arrangements include the following:

Processes and procedures: These have mainly focused on accident and incident reporting, disciplinary action of violators of OHS regulations, radiation handling, laboratory inspection, chemical and biological waste disposal, crane operation, PPE usage, fall protection, laser safety, ergonomics safety, and COVID-19 prevention (University of Connecticut, 2018; Virginia Polytechnic Institute and State University, 2019; Illinois State University, 2021; Oregon State University, 2021).

Policies: The policies that help to administer the OHS policies focus on, but not limited to, animals on campus, smoking on campus, safety of minors, and lone working (University of Connecticut, 2018; Illinois State University, 2021; Oregon State University, 2021).

Communication: US universities use the website and intranet to communicate key OHS information. For example, their OHS policies, processes, and procedures are readily available on their websites (University of Connecticut, 2018; Virginia Polytechnic Institute and State University, 2019; Illinois State University, 2021; Oregon State University, 2021).

Consultation: The need to consult and collaborate with staff and students has been facilitated through the establishment of OHS committees. For example, at Virginia Polytechnic Institute and State University (2019) and Oregon State University (2021), they have established joint OHS committees.

Legal requirements: Like in other countries, OHS policies for USA universities are guided by appropriate OHS legislation. These include Occupational Health and Safety Act of 1970 and Public Employees Safety and Health Act of 1980 (University of Connecticut, 2018; Virginia Polytechnic Institute and State University, 2019; Illinois State University, 2021; Oregon State University, 2021).

Universities in the USA have well established health and safety policies. A review of these policies has provided relevant information on the practical design of an OHS policy for a university. However, the content of these policies are not applicable to CHAU because they are guided by USA laws and characteristic of individual USA universities. Therefore, this study will have to collect appropriate data from CHAU and relevant OHS institutions in Zambia to determine an appropriate health and safety policy for the University.

3.8 SYNTHESIS OF LITERATURE

The review of best practices in the design of enterprise level OHS policy has shown that the development of an OHS policy has a number of benefits for organisations including, but not limited to, fulfilment of legal requirements, demonstrating management commitment, enhancing cost saving, promoting job satisfaction, and enhancing an organisation's public image (Hughes & Ferrett, 2016:50-51; McKinnon, 2020:73-74; Berns, 2022; Merin, 2022). In addition, although there is no standard format for designing an OHS policy, it has been established that the general design of an enterprise level OHS policy should have three major components, and these are: health and safety policy statement; organisation of health and safety; and arrangements for health and safety.

Furthermore, a review of policies from universities within and outside the African continent has revealed that OHS policies for universities generally have a similar structure, which conforms to the general design of an OHS policy established under Section 3.6.2. This is because, with the exception of the OHS policy for the University of Lagos (2016), the designs for all the other university OHS policies have the aforementioned three main components: health and safety policy statement; organisation of health and safety; and arrangements for health and safety. It was also observed that, although the specific content in each of the policies may vary from one university to another, they all have a similar structure. This is very important for this study as it provided an overall design for the OHS policy for CHAU. Notwithstanding the foregoing, the reviewed literature does not provide suitable content to be included in CHAU's health and safety policy. This is because there are several factors that differentiate CHAU's context from the universities that were reviewed. These include, but are not limited to, size; national laws and regulatory requirements; management structure and processes; political, social, and economic factors; and nature of programmes offered. Therefore, the review of best practices benefits this study only by providing a design, which can be used to design and develop the health and safety policy for CHAU. In view of the foregoing, this study was informed by best practices that the OHS policy for CHAU should consist of the following components as illustrated in Table 3.1 below.

Table 3-1: Preferred structure of the OHS policy for CHAU

S/N	COMPONENT	CONTENT
1.	Health and safety policy statement	This should state the following: • Purpose of the OHS policy for CHAU • OHS objectives for CHAU • Policy review period for CHAU • Scope of the policy for CHAU • Validating/responsible officer of the OHS policy for CHAU
2.	Organisation of health and safety	This should clearly stipulate the distribution of OHS responsibilities and authority at CHAU to the following: • University Council • Vice-Chancellor • Top level managers such as DVCs, Registrar, Deans, and Directors • Middle level managers such as HODs and unit managers

		• Workers • Staff • Visitors • Contractors
3.	Arrangements for occupational health and safety	The CHAU OHS policy should indicate the processes and procedures that the university is going to establish to manage the following: • OHS training • OHS communication • Emergency preparedness and response • Hazard identification and risks assessment • Consultation and collaboration in OHS management

Source: Researcher's own illustration

Additionally, the review of best practices enabled this study to generate a checklist of the key factors that should guide the development and design of the OHS policy for CHAU as presented in Table 3.2 below.

Table 3-2: Checklist for the development and design of the health and safety policy for Chalimbana University

S/N	FACTORS GUIDING THE DEVELOPMENT AND DESIGN OF AN OHS POLICY FOR CHAU
1.	Supported by top management;
2.	Written in a language that is clear and easy for everyone to understand;
3.	Consultative and participatory (especially employers and employees);
4.	Reviewed regularly;
5.	Communicated to key stakeholders within and outside the organisation;
6.	Guided by measurable OHS objectives;
7.	Tailor-made to respond to the prevailing hazards and risks at the University;
8.	Compliant with legal and other requirements;
9.	Validated by the senior most officer at the University;
10.	Comprehensive and proactive to cover all managers, workers, students, visitors, contractors, and other individuals who come in contact with the University;
11.	Implemented through arrangements focusing on OHS training, emergency preparedness, and OHS consultation and participation; and
12.	Integrated into the overall management of the University.

Source: Researcher's own illustration

The foregoing confirms one of the main assumptions of the systems theory that the development of public policies is influenced by the external environment. This is because, the development of an OHS policy for CHAU was influenced by international standards, relevant literature, and OHS policies developed by other universities, among other things.

3.9 CHAPTER SUMMARY

This chapter has addressed the second objective of this study, which is “*to review best practices in the design of enterprise level OHS policy.*” It has reviewed literature on the overall design of an enterprise level health and safety policy. In addition, it has reviewed policies for universities in Australia, Canada, England, Ghana, Hong Kong, Nigeria, South Africa, UAE, USA, and Zimbabwe. Health and safety policies from Zambian universities were not reviewed as no public university in the country has established one. The review of policies from universities in the said countries has revealed that there is consensus in the structure of health and safety policies, which have been developed. With the exception of Lagos University whose policy does not have a section on arrangements for health and safety, all other universities have a policy design with three main components namely: health and safety policy statement; organisation of health and safety; and arrangements for health and safety. This chapter has also revealed that while the structure for health and safety may be similar among universities, their specific content will vary depending on several factors such as national laws and management structures, among others.

The next chapter focuses on reviewing the legal, administrative, and institutional framework for Zambia. It seeks to identify and describe the institutions, laws, and policies providing guidelines for health and safety management in Zambia.

CHAPTER 4 ZAMBIA'S OCCUPATIONAL HEALTH AND SAFETY LEGAL AND INSTITUTIONAL FRAMEWORK

4.1 INTRODUCTION

The third chapter reviewed best practices in the design of enterprise level OHS policy. Specifically, it reviewed international OHS standards, literature on the design of enterprise level OHS policies, and OHS policies for universities in countries such as Australia, Canada, England, Ghana, Hong Kong, Nigeria, South Africa, UAE, USA, and Zimbabwe. The fourth chapter provides an overview of the health and safety profile for Zambia. Therefore, it answers the fourth objective of the study, which is to *“identify and describe the legal and institutional framework guiding the management of OHS in Zambia with respect to the development of enterprise level OHS policy.”* Just like the previous chapter, this chapter was also necessitated by the assumptions of the systems theory that public policies are a product of the interactions between an organisation and its environment. Thus, the chapter focused on reviewing Zambia's legal and administrative provisions that should guide the development of an OHS policy for CHAU. OHS is critical to every organisation regardless of its size, type, and nature (Hughes & Ferrett, 2016:2). Among other things, it preserves human life, improves employee morale, enhances an organisation's public image, preserves organisational financial resources and property, and promotes continuous and sustainable production. As such, every country must ensure that it has in place a legal and institutional framework to provide clear and effective guidelines on how all workplaces within its boundaries can be kept healthy and safe. In view of the foregoing, this chapter focuses on reviewing the laws, regulations, guidelines, and institutions that guide the management of OHS in Zambia. To undertake this task, it is divided into the following sections: overview of Zambia, OHS country profile, and chapter summary.

4.2 OVERVIEW OF ZAMBIA

Before delving into a discussion on the legal and institutional framework for Zambia, it is imperative to provide an overview of the country. This is particularly important because it helps the study understand the general context in which the country's OHS legal and institutional framework was formulated. Thus, this section discusses the origin of Zambia, its demographics, political and administrative structure, employment status, and OHS status.

4.2.1 Brief political history

Zambia is a country in the southern part of Africa, which was named after Africa's fourth longest river, the Zambezi whose origin is in the North-Western Province of the country (Simon, 1985:1; World Bank, 2010:4). Before attaining independence in 1964, the country was called Northern Rhodesia and was under the control of the British South Africa (BSA) Company from 1889 until

the British colonial government took over control in 1924 (Roberts, 1976:175,183). One of the major economic sectors in Northern Rhodesia was mining. The major mining activities took place in Broken Hill (present day Kabwe) and the Copperbelt where lead and copper were being mined respectively (Roberts, 1976:185; Mufinda, 2015:75). During this period, African workers were subjected to extremely poor conditions of work, which compromised their health and safety. These included long working hours, lack of PPEs, and meagre wages (Roberts, 1976:187; Kalusa, 1993:22; Mufinda, 2015:75).

When Zambia gained independence on 24th October 1964, Kenneth Kaunda, the president of the United Nation Independence Party (UNIP), became the country's first president (Gewald, Hinfelaar & Macola, 2008:2; Bertelsmann Stiftung, 2022:4). In 1972, Zambia transformed from a multiparty state to a single party state until 1991 when a multiparty general election was held following enormous local and international pressure on the Kenneth Kaunda administration (Larmer, 2008:98; Bertelsmann Stiftung, 2022:4). In that year's general election, UNIP was ousted from power after an emphatic victory by the Frederick Chiluba led Movement for Multiparty Democracy (MMD) (Bertelsmann Stiftung, 2022:4). The MMD remained in power until 2011 when the then president, Rupiah Banda lost to Michael Sata, the president of the Patriotic Front (PF), a party, which he formed after leaving the MMD due to unresolved differences (Bertelsmann Stiftung, 2022:4-5). In 2021, Hakainde Hichilema, the president of the United Party for National Development (UPND) became Zambia's seventh president after defeating Edgar Lungu of the PF in that year's general election.

4.2.2 Administrative structure

Administratively, the Zambian Government is made up of three branches namely, executive, legislature, and judiciary (Electoral Commission of Zambia, 2016). The executive is headed by the Republican President and its membership includes the Vice-President and cabinet ministers appointed from the legislature. The structural composition of the executive includes cabinet, ministries, and government departments. The major functions of the executive include enforcing the law through enforcement agencies, formulating and implementing policies, and providing services such as health and education (Electoral Commission of Zambia, 2016).

In Zambia, the legislative function is performed by the country's unicameral National Assembly. It is headed by the Speaker and consists of 167 members of parliament of which 156 are elected (Electoral Commission of Zambia, 2016). The Republican Vice-President is the government representative in the National Assembly. Among other things, the functions of the legislature in Zambia include, but not limited to, making laws, ratifying presidential appointments, and evaluating the performance of the executive (Electoral Commission of Zambia, 2016).

The Zambian judiciary consists of the courts, and it is headed by the Chief Justice. The courts in Zambia are divided into superior and lower courts (Electoral Commission of Zambia, 2016). The superior courts include the Constitutional Court, Supreme Court, Court of Appeals, and High Court. The lower courts include Subordinate Courts, Small Claims Courts, Local Courts, and Courts, as prescribed. The functions of the judiciary mainly include interpreting the country's laws (Electoral Commission of Zambia, 2016).

4.2.3 Geography

Zambia is a landlocked developing middle-income country endowed with valuable minerals, fertile land for agriculture, and excellent climatic conditions (Republic of Zambia, 2001:4; African Development Bank, 2016:1). The country has a total land expanse of 752,614 km², 40% of which comprises protected areas including lakes, rivers, forests, and national parks, among others (Republic of Zambia, 2020:27). It is positioned amid the latitudes “*10° and 18° South of the equator and longitudes 22° and 33° East of Greenwich Meridian*” (Republic of Zambia, 2020:27). It shares borders with 8 countries, and these are “*the Democratic Republic of Congo to the north; Tanzania to the north-east; Malawi to the east; Mozambique; Zimbabwe; Botswana; and Namibia to the south; and Angola to the west*” (African Development Bank, 2016:1). The map of Zambia as adopted from Worldometer (2018) is presented below.



Figure 4-1: Map of Zambia (Source: Worldometer, 2018)

The climate in Zambia is tropical and the mean temperature ranges between 18°C to 20°C yearly (Republic of Zambia, 2020:28). The country has three seasons, and these are rainy season, cool dry season, and hot dry season. The lowest temperatures are recorded in the cool dry season, which occurs from May to mid-August. The hot dry season occurring between mid-August and mid-November records the highest temperatures. The period between mid-November and April is the wettest (Irish Aid, 2017:6; Republic of Zambia, 2020:28).

Zambia is home to a number of rivers which support a significant amount of the country's wildlife. Consequently, many of Zambia's national parks are located along the country's rivers. For example, the Lower Zambezi National Park is situated along the Zambezi River, Kafue National Park is positioned along the Kafue River, Kasanka and Lavushi Manda National Parks are sited

along Luapula River, and the South Luangwa National Park is located along the Luangwa River (World Bank, 2009:23).

4.2.4 Population

The population of Zambia has grown from 13,092,666 in 2010 to an estimated 19,610,769 in 2022. This shows an annual average growth rate of 3.4% in the aforesaid period. The population of females in Zambia stands at approximately 51% whereas that of males is estimated at 49%. This demonstrates that the majority of Zambians are female (Zambia Statistics Agency, 2022:8). The two most populous provinces of Zambia are Lusaka and Copperbelt accounting for 15.7% and 14.1% of the total population respectively (Zambia Statistics Agency, 2022:10). With regard to rural-urban population distribution, 60% of Zambians dwell in rural areas, while 40% are resident in urban areas. This illustrates that the majority of Zambians live in the rural areas (Zambia Statistics Agency, 2022:7).

In terms of age, the Zambian population is significantly young with approximately 80% of the population below the age of 35 (Republic of Zambia, 2022a:13). Boosted by an improvement in the country's Human Development Index (HDI), the life expectancy at birth now stands at 63.9 years (Republic of Zambia, 2022a:12). Furthermore, the country has experienced a steady decline in mortality rate. For example, pregnancy-related mortality reduced from 398 deaths per 1,000 births in 2014 to 278 deaths per 1,000 births in 2018. Similarly, infant mortality rate declined from 70 deaths per 1,000 births in 2007 to 42 deaths per 1,000 births in 2018 (Republic of Zambia, 2022a:12).

4.2.5 Economic status

Following the shrinkage of the country's economy due to the devastating effects of the COVID-19 pandemic, Zambia's gross domestic product (GDP) grew at the rate of 4.6% in 2021 from a reduction of 2.8% in 2020 (World Bank, 2022). Among other things, this growth was buoyed by an increase in copper prices and renewed investor confidence after the August 2021 elections, which saw the UPND take overpower from the PF. As such, a GDP growth of 3.8% is anticipated between 2022 to 2024 (World Bank, 2022).

The foregoing notwithstanding, Zambia's economic situation is dire. The country is highly indebted with its total debt estimated to be well over 100% of its GDP. Poverty remains rampant in the country as more than half (54%) of the population survive on less than \$1.90 per day (Bertelsmann Stiftung, 2022:4). The rural population is the most impoverished with rural poverty standing at 76.6% and urban poverty at 23.4%. The high levels of poverty in rural areas are mainly caused by poor nutrition and lack of adequate finances to invest in business and buy agricultural inputs (Republic of Zambia, 2022a:14). Due to disproportionate access to land, education, and

empowerment opportunities, poverty is more prevalent in female headed homes, which account for 56.7% of total poverty levels in the country (Republic of Zambia, 2022a:15).

The dire economic status in Zambia had been exacerbated by the COVID-19 pandemic. A survey of 10, 490 households conducted in Zambia in 2021 revealed that the measures which were put in place to combat the spread of the virus in the country hampered citizens' access to finances and triggered an increase in the cost of living (Zambia Statistics Agency, 2021a:72). The survey results showed that the income of 86% of the sampled households was reduced whereas 7% of them completely lost it. Additionally, 93% of the households experienced an increase in the price of food and 64% of them reported a decrease in the quantity of the food they purchased due to an increase in prices (Zambia Statistics Agency, 2021a:72).

4.2.6 Employment status

The rate of unemployment in Zambia stands at an estimated 12.5% and the total number of workers in the country is 3,164,748 (Zambia Statistics Agency, 2021b:20; Republic of Zambia, 2022a:12). There are generally two forms of employment in Zambia. These are formal employment in which employees are entitled to social security coverage and leave days, among other things, and informal employment in which employees are not entitled to social security coverage. Of the total number of employed people in Zambia, the overwhelming majority (73.2%) are in informal employment, while only 26.8% are in formal employment (Zambia Statistics Agency, 2021b:31). With regard to rural-urban employment distribution, there are more people (66.3%) working in urban areas than in rural areas. According to the Zambia Statistics Agency (2021b:20), the working population in Zambia is dominated by males who account for 60.5% compared to females who account for 39.5%. In terms of provincial distribution, there are significantly more people working in Lusaka than anywhere else with the province accounting for 33.1% of the total working population. On the other hand, Luapula, which only accounts for 3.9% of the total population in employment has the least number of employed people.

Youth employment in Zambia is a major challenge. The unemployment rate among youths in the country stands at 17.5%, which is higher than the national unemployment rate of 12.5% (Republic of Zambia, 2022a:11). Consequently, the total number of employed youths in the country stands at 1,680,358. The distribution of youth employment in the country is consistent with overall national employment distribution. For example, out of the total number of youths in employment, the majority (62.4%) are males. With regard to formal and informal employment, 43.2% are working in the informal sector compared to 30.3% in the formal sector. Similar to overall national employment distribution, the majority (63.7%) of the employed youths are working in urban areas (Zambia Statistics Agency, 2021b:37).

4.3 OCCUPATIONAL HEALTH AND SAFETY PROFILE

This section presents the health and safety profile for Zambia with specific emphasis on the legal and administrative framework, which have been put in place to provide guidelines on how organisations in the country should manage health and safety.

4.3.1 Health and safety institutional and administrative framework

In Zambia, there are a number of institutions, which directly or indirectly play a role in managing health and safety in the country. The institutions playing OHS functions in Zambia are discussed below.

4.3.1.1 Occupational Health and Safety Institute

The Occupational Health and Safety Institute (OHSI), previously known as the Occupational Health Safety and Research Bureau, was established by the Occupational Health and Safety Act of 2010 to oversee the management of health and safety in all industries and the general public in Zambia (Republic of Zambia, 2012a:25). The OHSI is under the Ministry of Health, and it offers advice to the Minister responsible for Health on the management of health and safety in the country (Republic of Zambia, 2012a:25). Its functions include, but not limited to, incentivising employers to develop and implement health and safety measures; investigating occupational accidents and identifying work-related diseases in workplaces in the country; promoting health and safety research and investigations; compiling records of health and safety injuries, illnesses, and deaths in all sectors in Zambia; and conducting health and safety awareness and sensitisation among workers and employers (Occupational Health and Safety of 2010). Additionally, the OHSI conducts medical examinations on employees before, during, and after employment. Before employees commence work in some highly hazardous enterprises, the Institute conducts medical examinations to establish the status of their health. During the tenure of their work, the Institute conducts medical examinations on the same workers to determine if they have contracted any diseases, which they did not have at the beginning of their employment. Finally, after their retirement, the Institute conducts medical examinations on the same workers to establish if they have been afflicted by any occupational diseases (Republic of Zambia, 2012a:26).

4.3.1.2 Occupational Health and Safety Board

The Occupational Health and Safety Board falls under the Ministry of Health and is mandated to coordinate all health and safety matters in Zambia (Republic of Zambia, 2012a:11). To constitute the membership of the Board, the Minister responsible for health appoints representatives from ministries such as health, labour, livestock, and mines. Other members include representatives from the Attorney General's Office, Federation of Employers, trade unions, the Director of OHSI,

and two other members (Occupational Health and Safety Act of 2010). The functions of the Board include executing all the functions of the OHSI; organising and coordinating health and safety in the country; developing, implementing, and maintaining standards and guidelines for safeguarding the health and safety of workers across all workplaces in Zambia; and informing and advising the minister responsible for health on all pertinent matters relating to health and safety in Zambia (Occupational Health and Safety Act of 2010).

4.3.1.3 Workers' Compensation Fund Control Board

The Worker's Compensation Fund Control Board (WCFCB) was established by the Workers' Compensation Act of 1999 to oversee the social protection of workers who die, get injured, or become sick as a result of their work (Republic of Zambia, 1999). It is under the Ministry of Labour and Social Security and has a three-pronged mandate focusing on *"management of contributions made by employers to the Fund; compensation of workers for disabilities suffered or diseases contracted during the course of employment; and payment of compensation to dependants of workers who die as a result of occupational accidents or diseases"* (Republic of Zambia, 2012a:28). The functions of the WCFCB include: managing the fund and advising the Minister responsible for labour and social services on key issues relating to the Fund; reporting annually to the minister responsible for labour and social services on the administration of the Fund; and taking necessary and appropriate action(s) to promote health and safety among workers and establishing measures to quicken the healing and recovery process of workers who get injured or fall ill, due to their work (Republic of Zambia, 1999).

4.3.1.4 Labour Department

The Labour Department is situated in the Ministry of Labour and Social Services and its main mandate is to provide a national policy and legal framework for managing labour matters in Zambia (Republic of Zambia, 2021). With regard to health and safety, the Department conducts inspections to ensure that workplaces are healthy and safe and that the rights of workers and employers are protected as prescribed in laws such as the Occupational Health and Safety Act of 2010 (Republic of Zambia, 2021). The Labour Department has three units namely; Industrial Relations, Labour Inspections, and Employment. The Industrial Relations unit is concerned with managing and facilitating interactions among the government, employers and their representatives, and workers and their representatives (Republic of Zambia, 2021). Matters relating to collective bargaining, collective disputes, and collective agreements fall under this unit. The Labour Inspections unit is mandated to carry out inspections in workplaces to enforce legal provisions relating to labour matters. These include inspections on adherence to health and safety regulations, casualisation of labour, and child labour (Republic of Zambia, 2021). The Employment unit focuses on all labour matters such as the *"management of Public Exchange*

Services, employment permits screening, labour market information, Zambianisation programmes, welfare and development services so as to harmonise the employment patterns and labour market information in the country” (Republic of Zambia, 2021).

4.3.1.5 Occupational Safety and Health Services Department

The Occupational Safety and Health Services Department (OSHSD) is also located at the Ministry of Labour and Social Services. Its main mandate is to promote health and safety in workplaces classified as factories in line with the provisions of the Factories Act of 1967 (Republic of Zambia, 2015a:9). Its main functions include, but not limited to, enforcing the health and safety standards provided for in the Factories Act through workplace inspections; examining and testing factory machinery and equipment to ensure that they pose no threat to the health and safety of workers, employers, contractors, and visitors; investigating causes of work-related injuries and illnesses and recommending action for improvement; communicating health and safety information to relevant local and international stakeholders; conducting health and safety sensitisation and training to improve awareness and competence, respectively; providing guidelines on executing hazardous work; and reviewing health and safety laws (Republic of Zambia, 2015a:9).

The bulk of the information processed by the OSHSD is received from organisations classified as factories. For example, all employers falling under the factory category are legally mandated to furnish the OSHSD with information related to workplace accidents, diseases, and dangerous occurrences (Republic of Zambia, 2012a:31). Generally, only accidents, which cause death, incapacitation for more than three days, and damage to property and machinery are legally required to be reported to the OSHSD (Republic of Zambia, 2012a:31).

4.3.1.6 Mines Safety Department

The Mines Safety Department (MSD) is found in the Ministry of Mines and Minerals Development, and it is *“responsible for all matters pertaining to safety and health of persons employed in exploration, mining and mineral processing operations throughout the Republic of Zambia in line with the provisions of the Mines Minerals Development Act Number 7 of 2008”* (Republic of Zambia, 2022b). The MSD has four key units that perform its specific functions, and these are Machinery Unit, Explosives Unit, Mining Unit, and Environmental Unit (Republic of Zambia, 2022b). The Machinery Unit ensures that, in line with the Mines and Minerals Act, machinery and equipment in mines are safe to use by workers and employers. The Explosives Unit is tasked with the responsibility to promote health and safety in the manufacture, usage, and disposal of explosives for both international and small-scale mines operating in Zambia. The Unit does this through routine inspections and sensitisation activities. The Mining Unit *“is responsible for carrying out inspections, mining safety audits and risk assessments targeted towards large and small mines in order to enforce Mining and Explosive Regulations”* (Republic of Zambia, 2022b).

The Environmental Unit focuses on exploring minerals in a manner that is sustainable enough to protect the environment and facilitate job creation for the citizenry in Zambia (Republic of Zambia, 2022b).

Other functions of the MSD include formulating new regulations to provide guidelines for managing health and safety in mining enterprises; providing health and safety technical support and training to organisations in the mining sector; investigating accidents and recommending remedial and proactive action; conducting sensitisation on legislation guiding the mining sector in Zambia; and compiling statistics relating to accidents, injuries, and illnesses in mines (Republic of Zambia, 2012a:31; Republic of Zambia, 2015a:11).

4.3.1.7 Radiation Protection Authority

The Radiation Protection Authority (RPA) falls under the Ministry responsible for science and technology and was established by the Ionising Radiation Protection Act of 2005 to manage the protection of people and the environment from ionising radiation (Ionising Radiation Protection Act of 2005). The RPA's functions are performed by a Board appointed by the minister responsible for science and technology. The Board constitutes representatives from the Medical Council of Zambia, a public university, National Institute of Scientific and Industrial Research, Zambia Chamber of Commerce and Industry, relevant ministries, Attorney General's Office, Environmental Council of Zambia, OHSI, and trade unions in the radiation sector (Ionising Radiation Protection Act of 2005).

The functions of the RPA include, but not limited to, providing technical and expert advice to the government on matters relating to risks associated with ionising radiation in the country; developing, implementing, and sustaining measures and policies for protecting workers, members of the public, and the environment from risks posed by ionising radiation; putting in place mechanisms for collecting and disseminating relevant information relating to ionising radiation; communicating with relevant stakeholders on the functions and performance of the Authority through seminars, workshops, and relevant online platforms; collaborating with local, regional, and international organisations on enhancing the management of ionising radiation in the country; coordinating and managing responses to emergencies relating to ionising radiation; issuing licences and authorisation to organisations making use of ionising radiation in their work (Ionising Radiation Protection Act of 2005).

4.3.1.8 Disaster Management and Mitigation Unit

The Disaster Management and Mitigation Unit (DMMU) was established by the Disaster Management Act of 2010 and falls under the Office of the Republican Vice-President. The Unit was established to alleviate all forms of disasters in the country. Given that disasters can affect

any category of the population including employees and employers, the Unit contributes significantly to the management of health and safety in workplaces in that it responds to all disasters anywhere in the country (Disaster Management Act of 2010). The functions of the DMMU include, but not limited to, developing, implementing, and sustaining all disaster management mechanisms in the country; forewarning members of the public on any potential disasters and their probable effects; establishing measures for disaster prevention, alleviation, readiness, response as well as disaster aftermath recovery; develop, implement, and regularly review and update disaster management mechanisms; establishing mechanisms for effective early warning signs for disasters in all sectors, conducting assessments before, during, and after disasters; and creating and promoting expertise in disaster management through training and recruitment of volunteers (Disaster Management Act of 2010).

4.3.1.9 Zambia Compulsory Standards Agency

The Zambia Compulsory Standards Agency (ZCSA) was established by the Compulsory Standards Act of 2017 and falls under the Ministry responsible for commerce, trade and industry (Compulsory Standards Act of 2017). Its mandate is to *“administer, maintain and ensure compliance with compulsory standards for the purpose of public safety and health, consumer protection and environmental protection”* (ZCSA, 2021). The functions of the Agency include, but are not limited to, monitoring compliance of organisations to national compulsory standards including health and safety standards like *ISO 20345:2021-Personal protective equipment-Safety footwear*; collaborating with relevant local, regional, and international organisations in enforcing mandatory standards including those focusing on health and safety; and sensitising the nation on mandatory standards including those aimed at safeguarding the health and safety of workers (Compulsory Standards Act of 2017; ZCSA, 2021).

4.3.1.10 Zambia Bureau of Standards

Zambia Bureau of Standards (ZABS) was established by the now repealed Standards Act of 1994 and continued under the new Standards Act of 2017. It exists under the Ministry responsible for commerce, trade and industry and its mandate is to enhance and promote the safety of members of the public through establishing, implementing, and withdrawing voluntary national standards relating to quality, health and safety, food safety, and laboratory safety, among others (Republic of Zambia, 2012a:28; Standards Act of 2017). With regard to health and safety, the Bureau develops standards pertaining to the following: *“the design, manufacture and performance of personal protective equipment and clothing; safety in the operations and maintenance of electrical systems; safety and health in the handling, storage, transportation and distribution of petroleum products and their derivatives”* (Republic of Zambia, 2012a:28). Additionally, ZABS provides training on the implementation of health and safety management systems such as ISO 45001.

Furthermore, the Bureau provides certification of health and safety management systems to organisations operating in the country (Standards Act of 2017).

4.3.1.11 Zambia Environmental Management Agency

The Zambia Environmental Management Agency (ZEMA) was previously known as the Environmental Council of Zambia when it was first established under the Environmental Protection and Pollution Control Act of 1990 (Republic of Zambia, 2011; ZEMA, 2023). However, its name was changed to ZEMA following the enactment of the Environmental Management Act of 2011, which repealed the Environmental Protection and Pollution Control Act of 1990. Given the strong linkage between health and safety management and environmental management, reviewing the role of ZEMA is critical to this study. The main mandate of ZEMA is to sustainably manage the environment and natural resources as well as managing all forms of pollution (ZEMA, 2023).

The functions of ZEMA include, but not limited to, recommending to the government effective measures for managing the environment and natural resources; coordinating all efforts by stakeholders aimed at managing the environment; establishing, implementing, maintaining, and enforcing measures for managing the environment and alleviating pollution; conducting research and training focusing on environmental management; sensitising the public on the significance of environmental management; and reviewing and examining environmental impact assessment reports (Republic of Zambia, 2011).

4.3.1.12 Zambia National Public Health Institute

The Zambia National Public Health Institute (ZNPHI) *“is mandated to lead in safeguarding Zambia’s health security through surveillance and disease intelligence systems, emergency preparedness and response capabilities, specialised laboratory systems and networks, health information management systems, health security workforce development, and generation of scientific evidence through research”* (ZNPHI, 2022). The Institute exists as a department in the ministry responsible for health. Public health is closely related to health and safety and as such, reviewing the functions of this ZNPHI is relevant to this study.

The functions of the ZNPHI include advising the minister on matters relating to national health security; coordinating efforts by multiple stakeholders to manage public health through surveillance and disease intelligence; encouraging and promoting partnerships among local, regional, and international partners in managing public health emergencies; conducting public health hazard identification and risk assessments at national and sub-national levels; conducting research on public health; and educating and sensitising the public on public health hazards and risks (Zambia National Public Health Institute Act of 2020).

4.3.1.13 Tripartite Consultative Labour Council

The Tripartite Consultative Labour Council (TCLC) was established under the Industrial and Labour Relations Act of 1993 as amended by the Industrial and Labour Relations Act of 2017. The TCLC is a consultative platform on which representatives of the government, employers, and employees engage on various labour matters. The main function of the Council is to advise the government on all matters relating to labour including occupational health and safety (Industrial and Labour Relations Act of 1993; Nyirenda & Shikwe, 2003:15; Republic of Zambia, 2012a:12). As such, it is common for the TCLC to constitute committees focusing on health and safety matters.

4.3.1.14 Employer and employee organisations

In Zambia, organisations representing employers and employees have demonstrated commitment to promoting health and safety in workplaces within the country.

4.3.1.14.1 Zambia Federation of Employers

The Zambia Federation of Employers (ZFE), the mother body for employers in Zambia, was established to promote the interest of employers (Republic of Zambia, 2012a:37). While the ZFE does not have an OHS policy framework to guide its members on how to manage health and safety, it has been actively involved in promoting OHS among its members. For instance, the Federation has consistently engaged in raising health and safety awareness during the commemoration of World Day for Safety and Health at Work. Furthermore, ZFE has in the past given awards to enterprises performing well in the area of health and safety management. Additionally, ZFE has facilitated health and safety training for its member organisations (Republic of Zambia, 2012a:37).

4.3.1.14.2 Zambia Congress for Trade Unions

The Zambia Congress for Trade Unions (ZCTU), one of the two umbrella bodies for trade unions in Zambia, has demonstrated commitment to safeguarding the health and safety of workers in the country. The Congress has developed a health and safety policy whose aim is *“to create a safer and healthier workplace environment that will enhance worker productivity and contribute effectively to sustainable development”* (Republic of Zambia, 2012a:38). The objectives of its health and safety policy include incorporating health and safety in all collective agreements; championing the formation of OHS committees; promoting the involvement of employees in all aspects of health and safety including audits and inspections; and establishing health and safety training and sensitisation programmes (Republic of Zambia, 2012a:38).

4.3.2 Health and safety laws and policies

In response to the assumptions of the systems theory that the process of developing an organisation's OHS policy is influenced by its interactions with the external environment, this section sought to establish Zambia's OHS laws and policies that should guide the development of CHAU's OHS policies. There are a number of laws and policies that the Zambian Government has put in place to provide guidelines for managing health and safety in the country. These are discussed below.

4.3.2.1 National laws

The constitution and several other laws providing measures for managing health and safety in Zambia are discussed below. These informed the study on the requirements that organisations, including CHAU, need to consider to safeguard the health and safety of workers and other stakeholders who come in contact with the workplace.

4.3.2.1.1 Constitution

The Constitution is the supreme law in Zambia and any other legislation or regulation in the country is subordinate to it. As such, it takes precedence in any event where there's a contradiction with provisions in other laws (Republic of Zambia, 2016). The Zambian Constitution does not explicitly provide for the health and safety of workers. This is a major gap given that it is the supreme law of the country on which all other laws, regulations, and guidelines must be anchored. The foregoing notwithstanding, the Constitution guarantees the protection of fundamental rights and freedoms of individuals in the country, which contribute to the enhancement of health and safety at work (Republic of Zambia; 1996). These include the following:

The right to life: The right to life is aptly protected by the Zambian Constitution. With regard to health and safety, this means that the lives of workers should be protected in every workplace. As such, any death of workers at work is not acceptable and is subject to appropriate legal proceedings (Republic of Zambia; 1996).

Protection from slavery and forced labour: The Zambian Constitution protects individuals from being held as slaves as well as being forced to work. Slavery and forced labour negate the principles of health and safety. Therefore, protecting workers from them promotes good OHS principles and practices (Republic of Zambia; 1996).

Freedom of expression: The Constitution provides for the freedom of expression. This is imperative to the promotion of health and safety in workplaces as it gives workers the freedom to speak freely against poor health and safety conditions in their workplaces. This ensures that they

are heard by relevant authorities, which may intervene in their favour (Republic of Zambia; 1996). Without this freedom, workers would be unable to speak freely about certain sub-human treatments that they are exposed to in various workplaces.

Freedom of assembly and association: With regard to health and safety, this enables employees to belong to trade unions, which can fight for better health and safety conditions at work. It enables employees to organise and speak strongly against poor health and safety as one united voice (Republic of Zambia; 1996). In Zambia, workers generally enjoy this freedom, including those at CHAU.

Protection from discrimination: The protection from discrimination is important to the advancement of health and safety of workers by ensuring that everyone at the workplace is given the same treatment. This means that no employee's health and safety should be neglected on the basis of marital status, race, sex, tribe, and political opinions (Republic of Zambia; 1996). This is important as it ensures that all workers are protected as prescribed by international standards such as the *ILO-OSH 2001* and *ISO 45001:2018*.

Protection of young persons from exploitation: Outlawing child labour is critical to government's efforts to promoting health and safety in the country. Employing children has the potential to negate their health and safety as well as robbing them of the opportunity to acquire education. Therefore, to ensure that they are safeguarded, the Zambian Constitution provides for their protection from exploitation by prohibiting employers from engaging them in work (Republic of Zambia; 1996). Children generally lack the ability to make sound decisions and judgements. Thus, prohibiting organisations from hiring them for work is a sure way of protecting them from occupational hazards and risks that can potentially end their lives prematurely.

4.3.2.1.2 Factories Act of 1967

This is one of Zambia's oldest legislation focusing on health and safety. Although the Act primarily focuses on regulating health and safety in factories and related workplaces, its provisions are useful to other workplaces including universities (Republic of Zambia, 1967). The major provisions of this Act, which workplaces like CHAU can benefit from include the following:

Duties of the employee: Every employee must religiously follow the health and safety regulations and guidelines provided by the employer. No worker should put their life and that of others at risk intentionally (Republic of Zambia, 1967). This is beneficial as it informed this study that the OHS policy for CHAU should ensure that workers are responsible for their health and safety and that of others.

Overcrowding and ventilation: To promote health and safety, employers should avoid overcrowding in factories and they must ensure that they put in place natural or artificial mechanisms for adequate ventilation (Republic of Zambia, 1967). This is useful to a university like CHAU, which may experience overcrowding in lecture rooms, laboratories, and student accommodation. As such, the study is informed that the OHS policy for CHAU should provide arrangements for managing overcrowding at the University.

Lighting: Employers are required to ensure that factories and related workplaces are adequately and appropriately lit using natural or artificial mechanisms (Republic of Zambia, 1967). Given that CHAU is a learning institution where staff and students operate day and night, it is imperative that classrooms, offices, hostels, library, and the surroundings are adequately lit. This will contribute to the enhancement of a favourable learning and teaching environment at the University.

Bathrooms: Employees in factories and related workplaces are entitled to functional, adequate, clean, and easily accessible toilets. Where there are both female and male workers, separate bathrooms must be provided by the employer (Republic of Zambia, 1967). CHAU has female and male staff and students who spend a lot of their time on the University premises. Thus, the University should provide separate toilets for staff and students.

Cleanliness: All factories must be kept clean at all times. This means they should be cleaned at least once every day to prevent accumulation of dirt, dust, and other particles on chairs, tables, walls, ceiling, and other surfaces in the workplace (Republic of Zambia, 1967). CHAU is a learning institution, which accommodates a myriad of individuals on a daily basis. Its premises must always be clean to ensure that none of the staff, students, contractors, and visitors are exposed to dust, dirty, and other harmful substances.

PPEs: Factory owners are required to provide appropriate and adequate PPEs to workers who are exposed to harmful solids, liquids, and gases (Republic of Zambia, 1967). As a higher learning institution, it is possible that CHAU staff and students are exposed to potentially harmful substances. As such, the University must provide them with suitable and sufficient PPEs.

Heavy loads: The Act protects employees in factories and related workplaces from ergonomical hazards by prohibiting employers from requiring their workers to carry heavy loads that can potentially cause injury (Republic of Zambia, 1967). CHAU needs to put in place mechanisms for protecting staff and students from ergonomic hazards that may be prevalent at the University.

Prompt notification: All accidents, injuries, near misses, and incidents should be hastily reported to relevant authorities within and outside the organisation (Republic of Zambia, 1967). In view of the foregoing, it is imperative for CHAU to establish mechanisms to facilitate the prompt communication of occupational incidents to all relevant internal and external stakeholders.

Fencing and covering: All dangerous machinery and open pits must be fenced and covered, respectively (Republic of Zambia, 1967). This is to prevent workers from being directly exposed to the hazards and risks that machines and ditches pose. This informs the study that CHAU should fence all potentially dangerous equipment such as generators.

Slips: To protect workers from slips, the construction of stairs, floors, passages, and steps must consider the health and safety of workers. Furthermore, they must be regularly maintained and cleaned to prevent the accumulation of substances and materials that can cause individuals to fall (Republic of Zambia, 1967). The foregoing informs this study that CHAU should establish measures to protect staff and students from slipping. This means that corridors, stairs, and walkways should be appropriately designed and maintained to avoid accidents caused by slipping.

Training: Every new employee must be trained and inducted before they can be allowed to commence work, especially if it is risky (Republic of Zambia, 1967). From the foregoing, this study is informed that the OHS policy for CHAU should establish effective OHS training programmes to ensure that all new staff and students are appropriately equipped with OHS management knowledge.

Fire: Firefighting equipment must be installed in all factories and related workplaces. They must be constantly maintained to ensure that they are always in a functioning state. Furthermore, all employees must be trained on how to use firefighting equipment (Republic of Zambia, 1967). The foregoing informs this study that it is necessary for CHAU to install and regularly maintain firefighting equipment. This is particularly important for CHAU as the University has already lost property due to fire as discussed under Section 1.2 (Chongo, 2017; Siame, 2017).

Safe access and egress: Factory owners must ensure that all workspaces have routes that make it easier for employees to enter as well as exit. As such, these routes must always be maintained to ensure that there are no obstacles that can prevent workers from entering or exiting (Republic of Zambia, 1967). This is important for a university such as CHAU that has already experienced emergencies in form of fire outbreaks (see Chongo, 2017; Siame, 2017). As such, CHAU needs to establish emergency exit routes in classrooms.

First aid: All factories must have fully stocked first aid boxes, which are easily accessible at all times. As such, it must be under the charge of an officer who is always available. Furthermore, workers must be trained effectively on how to administer first aid (Republic of Zambia, 1967). The foregoing demonstrates that CHAU should ensure that adequate and well-stocked first aid boxes are available and easily accessible to all members of the University, at all times.

4.3.2.1.3 Explosives Act of 1974

This Act was enacted to regulate the manufacturing, usage, transportation, importation, exportation, and disposal of explosives (Republic of Zambia, 1974). All employers operating with explosives must obtain a licence and only designated and competent individuals must be allowed to use, transport, load, and unload explosives. Under this Act, it is a requirement that every organisation in possession of explosives must have a first aid station that is conveniently located and easily accessible (Republic of Zambia, 1974). Such a station must be labelled with a big red cross for easier identification, and it must have all the necessary requirements such as a telephone, beds and blankets, tables and chairs, running water, and medication, among others. While CHAU does use explosives, it is imperative for the University to establish arrangements for managing emergencies relating to explosions that can be caused by bombs and gas canisters, among others. This is important due to the advent of terrorism that can target any public or private institution including a University.

4.3.2.1.4 Public Health Act of 1995

The purpose of this Act is to provide guidelines for preventing and managing diseases as well as providing guidelines for regulating public health in Zambia. The Act requires that all employed individuals must adhere to the public health regulations that apply to their specific professions. For example, all individuals employed in an abattoir are prohibited from taking alcohol or any intoxicating substances (Republic of Zambia, 1995a). The Act also provides regulations that guide employers in managing the spread of diseases to the public. These regulations also promote the health and safety of workers, contractors, and visitors. For instance, employers are required to provide adequate and appropriate PPEs, clean and functional lavatories, and clean running water and soap, among others (Republic of Zambia, 1995a). To ensure that public health regulations are adhered to, the Act provides for health inspectors who are tasked with the responsibility of inspecting places of work (Republic of Zambia, 2012a:5). This Act informs the study that the OHS policy for CHAU should take into account measures for managing public health. Given the devastating consequences for COVID-19 on universities globally, it is important for CHAU to put in place measures for managing hazards and risks to public health.

4.3.2.1.5 Workers' Compensation Act of 1999

This Act establishes the WCFB and provides for the compensation of workers who die, get injured or ill at work. For example, the Act requires employers to report any accident or disease to the Commissioner of the WCFB within three days after they become aware of such information (Republic of Zambia, 1999). Furthermore, the Act provides for the right to compensation. For instance, *“if an accident or disease occurs to a worker arising out of and in the course of employment and results in the worker's disablement or compensation death, the worker, or if the*

worker dies, that worker's dependants shall be entitled to compensation in accordance with the provisions of this Act” (Republic of Zambia, 1999). The Workers’ Compensation Act of 1999 also requires employers to have in place a well-furnished first aid box that is easily accessible. The provisions of this Act informs this study that the OHS policy for CHAU should establish arrangements for compensating workers who get injured in the course of official duty.

4.3.2.1.6 Ionising Radiation Protection Act of 2005

The Act establishes the RPA and provides for the protection of workers, members of the public, and the environment from any materials and devices that produce ionising radiation (Republic of Zambia, 2005a). For example, all individuals who intend to import, export, use, and dispose-of materials, substances or devices, which produce ionising radiation must seek authorisation from the RPA Board by applying for a licence (Republic of Zambia, 2005a). Although CHAU may currently not be exposed to radiation hazards, it is imperative for the University’s OHS policy to be guided by the provisions of the Ionising Radiation Protection Act of 2005. This will enable the University to take a proactive approach to the management of hazards and risks at the University as recommended by international standards (see ISO, 2018:29).

4.3.2.1.7 Occupational Health and Safety Act of 2010

This is Zambia’s principle law focusing entirely on health and safety management. It established the OHSI and provides for the protection of workers in all workplaces in the country. In doing so, it provides for the following:

Health and safety policy: While the Act provides for the development of an OHS policy, it does not make it mandatory for organisations to develop one. This falls short of international best practices, which contend that any organisation regardless of its size, nature, and type needs to have an OHS policy in place (ILO, 2009a:6; ISO, 2018:9-10). Instead, discretion is left to the Director of the OHSI to instruct an organisation to develop an OHS policy whenever necessity arises. The Act states that, when instructing an organisation to develop an OHS policy, the Director may also request the organisation to prepare *“a description of the organisation and arrangements for carrying out reviews to that policy”* (Republic of Zambia, 2010). The foregoing loosely provides the structure of an OHS policy as consisting of two sections, the description of the organisation and arrangements for carrying out reviews of the policy. In terms of content, the Act empowers the Director of the OHSI to furnish an organisation with a framework detailing the content of an OHS policy (Republic of Zambia, 2010). While it is understandable that every organisation is different and must have their own health and safety policies appropriate to their unique contexts, it would be useful to have a standard that can be followed by all organisations in the country. While the Act does not make it mandatory for organisations to establish an OHS policy, it is imperative for CHAU to develop its own OHS policy to enable the University to meet

all its legal obligations. International standards recommend that in order for an organisation to meet its legal requirements, it should develop an OHS policy (see ISO, 2018:9).

Management commitment: The Act requires that any health and safety policy developed by an organisation must be signed by the CEO of the organisation (Republic of Zambia, 2010). This conforms to international best practices, which require top management of an organisation to show commitment to protecting their workers by endorsing the policy with the signature of the senior most officer in their hierarchy of authority (Taylor *et al.*, 2004:65; Stranks, 2006:197; Hughes & Hughes, 2008:47). The foregoing informs this study that the OHS policy for CHAU should be dated, signed, and validated by the VC who is the senior most officer at the University.

Publication of the policy: In line with international best practices, The Occupational Health and Safety Act of 2010 obliges all employers to conspicuously display their health and safety policies throughout their organisation so that workers and other stakeholders can easily access them (Republic of Zambia, 2010). This informs the study that appropriate mechanisms should be put in place to ensure that the OHS policy for CHAU is easily accessible to all internal and external stakeholders.

Establishment of health and safety committees: Under the Occupational Health and Safety Act of 2010, any employer with 10 or more workers is required to establish an OHS committee. Such a committee must consist of an equal number of representatives from both employers and employees with 2 representatives from either side being the minimum (Republic of Zambia, 2010). The functions of the OHS committee include, but not limited to, facilitating collaboration and communication between employers and workers on matters relating to health and safety, scrutinising all factors posing hazards and risks to workers, continuously examining and updating health and safety measures at a workplace, constantly updating employees on new developments in health and safety standards, guidelines, and regulations (Republic of Zambia, 2010). In view of the foregoing, it can be stated that CHAU should establish an OHS committee to promote collaboration and consultation among managers, staff, and students.

Duties of employers: Employers have the overall responsibility to ensure that all workers are healthy and safe at work, at all times (Republic of Zambia, 2010). The specific duties include the following: establishing healthy and safe work methods as well as providing safe machinery, equipment, and materials; training and informing employees on key health and safety matters such as the usage of new technology and changes in regulations; providing healthy and safe emergency exit routes at the workplace; collaborating and consulting with employees on health and safety matters including accident investigation and reviewing of OHS guidelines; establishing arrangements and procedures for emergencies, investigations, training, and first-aid; and providing appropriate PPEs to employees at the employer's cost (Republic of Zambia, 2010). This

information is relevant to this study as it provides what employers are legally required to put in place to make their workplaces safe. As such, this study will take this information into consideration when proposing an OHS policy for CHAU.

Duties of employees: Just like employers, employees have health and safety duties under the Occupational Health and Safety Act of 2010. Their duties include: complying with all health and safety guidelines; taking reasonable care for their health and safety and that of others in the workplace; and reporting any unsafe work methods and processes as well as defective machines and PPEs (Republic of Zambia, 2010). Employees who contravene the provisions of the Act could be fined or imprisoned. When proposing an OHS policy for CHAU, these duties of employees will be considered under the organisation of health and safety section.

Protection of employees from dismissal: Employees who voice out against poor health and safety conditions, including those who refuse to carry out work that is detrimental to their health and safety are protected from dismissal or demotion by their employers (Republic of Zambia, 2010). Given that this study will allocate OHS responsibilities to staff and students at CHAU, it is imperative that the OHS policy for the University provides mechanisms for protecting them from dismissal, suspension, and discrimination emanating from performing their OHS functions.

OHS services: Any employer who has permanent workers and whose workplace has been designated by the Director of the OHSI to establish OHS services, may be required by the Director, subject to approval from the Minister responsible for Health, to establish a health and safety service for the treatment of workers (Republic of Zambia, 2010). Given that CHAU has a multitude of workers, students, and visitors, it is imperative for the University to establish mechanisms for providing adequate health services.

4.3.2.1.8 Environmental Management Act of 2011

This Act provides guidelines for protecting, conserving, and managing the environment as well as protecting the health and safety of people from harmful environmental practices such as pollution (Republic of Zambia, 2011). Although the Act does not directly seek to safeguard the health and safety of workers, they are covered under it. For example, the Act requires the protection of workers from excessive noise (Republic of Zambia, 2011). Given the interface between environmental management and health and safety management, it is imperative for the OHS policy for CHAU to be guided and supported by the Environmental Management Act of 2011.

4.3.2.1.9 Persons with Disabilities Act of 2012

The Act was enacted to safeguard the well-being of persons living with disabilities, including their health and safety. For instance, the Act requires institutions, including education institutions at all

levels, to put in place mechanisms appropriate for people with disabilities (Republic of Zambia, 2012b). These mechanisms include convenient parking spaces, easy access to public services such as health and education, structural designs that enable persons with disabilities to navigate their way around any facility including a workplace and a learning institution (Republic of Zambia, 2012b). In view of the provisions of this Act, the study deduced that the OHS policy for CHAU should provide arrangements to enhance the working and learning experience of differently-abled staff and students, respectively.

4.3.2.1.10 Mines and Minerals Development Act of 2015

The Mines and Minerals Development Act of 2015 as amended in 2022 focuses on providing health and safety and environmental protection in the mining sector. The Act requires all mine owners to seriously consider the health and safety of workers, surrounding communities, and the environment when carrying out any mining activities including exploration, extraction, production, and supply (Republic of Zambia, 2015b). Failure to do so may be a basis for denial or revocation of a mining licence. Furthermore, mine workers cannot do the following: *“wilfully interfere with or misuse an appliance, convenience or other thing provided in a mine for the purposes of securing the health, safety or welfare of employees; wilfully and without reasonable cause do anything likely to endanger the life of a person in the mine; or wilfully neglect to make use of any appliance or other thing provided in the mine for the purpose of securing the health or safety of the persons employed in the mine”* (Republic of Zambia, 2015b).

4.3.2.1.11 Employment Code Act of 2019

This Act was enacted to manage and standardise the engagement of individuals in employment in all workplaces in the country. With regard to health and safety, it provides guidelines and standards on a number of matters that seek to enhance and safeguard the wellness of individuals in employment. Below is a discussion on the major health and safety guidelines provided by the Act.

Health and wellness policy: The Employment Code Act of 2019 states that every employer must establish a number of employment policies including the following that focus on OHS: health and wellness policy, HIV and AIDS policy, and the harassment policy (Republic of Zambia, 2019a). From the foregoing, the OHS policy for CHAU should be supported by other policies focusing on HIV and AIDS, employee wellness, and harassment.

Discrimination: The Act prohibits discrimination by employers in all its forms as a means of protecting the well-being of workers. Among other things, discrimination can cause stress, which can negatively affect the health and safety of workers. The Act states that no employee should be discriminated on the basis of *“colour, nationality, tribe or place of origin, language, race, social*

origin, religion, belief, conscience political or other opinion, sex, gender, pregnancy, marital status, ethnicity, family responsibility, disability, status, health, culture or economic grounds” (Republic of Zambia, 2019a). On the basis of the provisions of this Act, the OHS policy for CHAU should fairly protect all stakeholders such as workers, students, visitors, and contractors.

Forced labour: The Act outlaws forced labour on workers as it has the potential to subject them to deplorable conditions of work, which negate their health and safety. To deter would-be offenders, the Act states that any employer found guilty of forcing their employee(s) to work will be imprisoned, fined, or fined and imprisoned (Republic of Zambia, 2019a). Therefore, the OHS policy for CHAU should enable employees to refuse to undertake work that is detrimental to their health and safety.

Medical examination: Employers are encouraged to subject potential or new workers to medical examinations to determine their suitability for the job. This is necessary to ensure that new employers are aware of any medical conditions of their workers. This is imperative in the ongoing management of employee health and safety at work (Republic of Zambia, 2019a). From the foregoing, the OHS policy for CHAU should incorporate mandatory medical examinations for new staff and students.

Leave: To ensure that employees take enough rest to avoid physical and emotional stress and burnout, the Act provides for different types of leave that are suitable for individuals in different circumstances. These include the following: annual leave, sick leave, compassionate leave, family responsibility leave, maternity leave, and paternity leave (Republic of Zambia, 2019a). This provision will make it possible for the OHS policy for CHAU to make provisions for managing stress and burnout among staff.

Protection of vulnerable individuals: The Employment Code Act provides for the protection of women and children whose circumstances generally make them vulnerable. For example, female workers who have just delivered cannot return to work within six weeks from the date of delivery, unless they are certified fit for duty by a medical doctor. Furthermore, an employer must not compel an expecting female employee to work overtime and perform duties that are potentially harmful to her and her unborn child (Republic of Zambia, 2019a). Similarly, the Act prohibits the employment of children in public and private organisations as it can be detrimental to their health and safety. However, there are some conditions under which some children can be employed. For example, teenagers can be employed in jobs that are deemed unharmed to their health and safety. Additionally, children who are required to work as part of their school curriculum and have authorisation from the relevant Permanent Secretary can also be allowed to work under strict supervision (Republic of Zambia, 2019a). This provision will enable CHAU to provide mechanisms for protecting students, many of which are still categorised as children. The provision will also

enable CHAU to establish mechanisms for protecting other vulnerable groups such as the differently-abled and pregnant female workers and students.

Duration of work: The Act provides guidelines on how to prevent prolonged working hours as well as to allow rest among workers. Working long hours can be detrimental to the health and safety of workers and can lead to death (WHO, 2021:37). In Zambia, the normal working hours for employees is 8 hours per day and 48 hours per week (Republic of Zambia, 2019a). Furthermore, *“an employee is entitled to a rest day of at least twenty-four consecutive hours in every period of seven consecutive days”* (Republic of Zambia, 2019a). Similarly, on every day of work, employers are required to grant their workers an hour to have a meal and a minimum of 20 minutes for a health break (Republic of Zambia, 2019a). This provision will enable CHAU to establish arrangements for ensuring that workers are not subjected to abnormal working hours.

Water and sanitation: Employers are required to provide clean water and adequate sanitation facilities at the workplace failure to which they may be fined, imprisoned or both if found to have abrogated this provision (Republic of Zambia, 2019a). From the foregoing, the OHS policy for CHAU should put in place mechanisms to ensure that the University has constant and adequate supply of clean water. This is imperative for CHAU as the University has been closed in the past due to poor sanitation (see Namaiko, 2018).

Medical attention: Employers are obligated to provide medical attention and transport to a medical facility to employees under a collective agreement and a contract of employment (Republic of Zambia, 2019a). This provision informs this study that CHAU should put in place mechanisms to ensure that its workers and students have easy access to medical services, at all times.

Housing: To ensure that workers have decent accommodation to promote their health and safety, employers are required to provide houses for them. In an event that the employer is unable to do so, they must provide their employees with a loan or housing allowance aimed at securing conducive accommodation for them (Republic of Zambia, 2019a).

4.3.2.1.12 Mental Health Act of 2019

Among other things, this Act provides for the *“promotion and protection of the rights of persons with mental illness, mental disorder, mental impairment or mental disability”* (Republic of Zambia, 2019b). The Act does not necessarily focus on the mental health of workers, but its provisions can be used to enhance, prevent, and manage mental health among workers. For instance, it provides for the prevention of stigma against mental illness; mental health awareness, sensitisation, and training; and establishment of mental health services and facilities (Republic of Zambia, 2019b). Given that CHAU is an academic institution, it is expected that mental health

issues among workers and students are rampant. As such, the OHS policy for the University should establish arrangements for managing mental health concerns among staff and students.

4.3.2.2 National policies

There are a number of policies that provide for the management of health and safety in Zambia. The major ones are discussed below.

4.3.2.2.1 National employment and labour market policy

Under the National Employment and Labour Market Policy (NELMP), which was developed in 2005, Section 7.5.3 of the policy is dedicated to health and safety. The policy recognises the poor health and safety management in Zambia and the rampant OHS injuries and illnesses suffered by workers in the country (Republic of Zambia, 2005b:38). Consequently, its main objective is to improve the health and safety of all workers in all workplaces in the country. To achieve this objective, the policy provides for health and safety training, review of health and safety legislation, and capacity building in the health and safety inspectorates (Republic of Zambia, 2005b:38). In view of this policy, the study is informed that the OHS policy for CHAU should provide arrangements for health and safety training of staff and students.

4.3.2.2.2 National policy on environment

This policy was developed in 2007 and focuses on managing and conserving the environment. While it does not directly address issues of health and safety at the workplace, one of its strategies for effective environmental management focuses on safeguarding the health and safety of workers. The policy provides for the “*development of industrial technologies that do not pollute or irreparably damage the local environment and that maintain proper health and safety standards for workers*” (Republic of Zambia, 2007:50). As such, it is imperative for the OHS policy for CHAU to establish arrangements targeting the management of the immediate environment in which workers and students regularly work and learn, respectively.

4.3.2.2.3 National health policy

The Zambian National Health Policy was developed in 2012. While it focuses on general health matters in the country, it provides for the management of OHS in workplaces. Under Section 4.2.4, the policy identifies the need to make workplaces safe in order to reduce occupational morbidity, disability, and mortality (Republic of Zambia, 2012c:29). As such, one of the key focus areas of the policy is to enhance the provision of OHS services in all workplaces so as to minimise work-related hazards and risks. The foregoing will be achieved by reinforcing efforts aimed at preventing and protecting workers from communicable diseases and establishing laws and institutions aimed at providing health and safety, among others (Republic of Zambia, 2012c:29).

This policy informs this study of the need for the OHS policy for CHAU to establish available and accessible health services.

4.3.2.2.4 *National occupational safety and health policy*

After years of not having a national OHS policy, Zambia finally launched its *National Occupational Safety and Health Policy* in 2023. This means that Zambia has made significant progress in meeting international standards such as the *ILO Convention No. 155* and *ILO Convention No. 178*, which were ratified by the country in December 2013. Both conventions recommend that ILO member countries should develop and implement a national OHS policy (Republic of Zambia, 2023:ii). Through the country's OHS policy, Zambia's vision is to be "*a nation free from occupational diseases, accidents and dangerous occurrences*" (Republic of Zambia, 2023:7). One of the objectives of the policy is increasing the supply of qualified and competent OHS personnel in the country (Republic of Zambia, 2023:9). To achieve the said objective, the government shall "*promote specialised training in occupational safety and health; enhance the mainstreaming of occupational safety and health in all learning institutions; promote research and development in the field of occupational safety and health; and establish a professional body to register occupational health and safety practitioners*" (Republic of Zambia, 2023:9).

Although the national policy has been developed, it has not yet been implemented. However, an implementation framework for the policy has already been developed. The Ministry responsible for Labour and Social Security will coordinate the implementation of the national OHS policy by establishing a national Coordinating Committee composed of relevant ministries and statutory OHS institutions (Republic of Zambia, 2023:11). A number of laws will support the implementation of the OHS policy. These include Factories Act of 1967, Explosives Act of 1974, Workers Compensation Act of 1999; Occupational Health and Safety Act of 2010; and Employment Code Act of 2019, among others (Republic of Zambia, 2023:13). Additionally, the finances required to implement the national OHS policy will be raised through national budgets and partnerships with private sector organisations, among others (Republic of Zambia, 2023:13).

Although the national OHS policy for Zambia does not provide the design for an enterprise OHS policy, it provides enough information that is relevant to this study. For instance, the policy seeks to enhance the enforcement of OHS laws, as well as to strengthen the collaboration between employers and employees (Republic of Zambia, 2023:9). This informs the study that the OHS policy for CHAU should ensure that the University is compliant with the provisions of OHS laws. In addition, the policy informs the study that the OHS policy for CHAU should establish arrangements to promote collaboration between managers and staff in managing health and safety at the University.

4.3.2.3 Health and safety performance and challenges

In Zambia, the health and safety situation is deplorable and requires urgent attention. Siziya *et al.* (2013:111), contend that the number of injuries across industries in the country have been on the rise. For example, Mubita *et al.* (2021:32) postulate that the construction sector, one of the largest sectors in the country, is facing a number of health and safety challenges. Furthermore, official government records show that from 2011 to 2014, the number of fatal and non-fatal injuries increased exponentially from 65% to 221%, respectively in various industries across the country (Republic of Zambia, 2015a:vii). The education sector has not been spared from the said occupational injuries. Between the above-stated period, the education sector recorded a total of 8 and 31 fatal and non-fatal injuries, respectively (Republic of Zambia, 2015a:15-17).

There are a number of challenges that are responsible for the poor health and safety status in Zambia. These can be divided into two major categories, national level challenges and enterprise level challenges. At national level, one of the major challenges is that the national health and safety policy has not yet been implemented (Republic of Zambia, 2023). The other reason is that existing legislation fall short of international best practices in OHS (Republic of Zambia, 2015a: vi). Other challenges include, but are not limited to, overlapping of functions and lack of coordination among institutions responsible for OHS in the country, duplication in OHS inspection, and lack of clear and adequate guidelines in existing OHS laws and policies on how organisations can develop an OHS policy (Republic of Zambia, 2015a:23-27).

At enterprise level, one of the major challenges has been the lack of written OHS policies (Republic of Zambia, 2015a:46; Republic of Zambia, 2023:5). The lack of OHS policies in organisations was mainly attributed to the lack of a national OHS policy, which was only launched in 2023. In addition, there is a poor regulatory framework in the country (Republic of Zambia, 2015a:46; Republic of Zambia, 2023:5). As such, organisations with OHS policies in Zambia follow voluntary international standards instead of national laws (Republic of Zambia, 2015a:46-47). For example, ZESCO Limited and Copperbelt Energy Corporation (CEC) have adopted ISO 45001:2018 as their OHSMS (Kaumba, 2020; Copperbelt Energy Corporation [CEC], 2021). Other challenges at enterprise level include, but not limited to, absence or defunct firefighting equipment, inadequate PPEs, abnormal working hours, inadequate and poorly maintained toilets, poor OHS culture, communication barrier, lack of safety officers, lack of health and safety guidelines, negligence and poor adherence to health and safety regulations by workers, lack of adequate supervision and training, and lack of equipment for safety control (Republic of Zambia, 2015a:47; Mubita *et al.*, 2021:32; Ohnishi *et al.*, 2021:6). All the foregoing challenges are attributed to the lack of OHS policies in organisations in the country. Therefore, this study deduces that CHAU, like other organisations in the country should develop a proactive and comprehensive OHS policy to counter negate all the said OHS challenges at enterprise level.

4.4 CHAPTER SUMMARY

This chapter addressed the third objective of this study, which was to *“identify and describe the legal and institutional framework guiding the management of OHS in Zambia with respect to the development of enterprise level OHS policy.”* Among other things, the chapter identified and described specific institutions, laws, and policies that are used to regulate health and safety in the country. The chapter has revealed that the health and safety laws in Zambia do not unequivocally provide guidelines on the design of an enterprise level OHS policy. Additionally, the chapter has confirmed the assumptions of the systems theory that organisational policies are influenced by factors obtaining in its external environment. As such, the reviewed laws and policies contain useful guidelines that should guide the development of an OHS policy for CHAU. These include the following: duties of employers and employees; arrangements for fire safety and health and safety training; health and safety services; first aid; lighting and ventilation; and hygiene at the workplace and its surrounding areas.

The chapter has also revealed that the health and safety legal and institutional framework in Zambia is characterised by a number of challenges including poor coordination and overlapping of functions. The next chapter analyses the occupational hazards and nature of accidents prevalent at CHAU.

CHAPTER 5 REVIEW OF OCCUPATIONAL HAZARDS, ACCIDENTS, AND INCIDENTS PREVALENT AT CHALIMBANA UNIVERSITY: EMPIRICAL EVIDENCE

5.1 INTRODUCTION

The preceding chapter gave a detailed account of Zambia's OHS legal and institutional framework. It reviewed the institutions, laws, and policies that provide the general guidelines for OHS management in the country. The chapter is important to this study because it highlighted a number of fundamental measures and arrangements that should be adopted when developing an OHS policy for CHAU. Chapter five focuses on the fourth objective of this study which is "*to establish the current OHS profile for CHAU.*" Specifically, the chapter focuses on identifying the nature of hazards and accidents prevalent at CHAU. This chapter is also important in establishing the initial status review of CHAU. Additionally, the chapter was necessitated by the following theories: institutional theory; elite theory; group theory; and rational choice theory. As discussed under Section 3.4.2 of this thesis, an initial status review is necessary before developing the first-ever OHS policy for an organisation (see Labour Department, 2002:18; ILO, 2009a:10). This chapter has been divided into the following sections: Introduction; overview of CHAU; biographical details of the informants; data analysis of semi-structure interviews; informants' understanding of OHS policy; informants' views on factors responsible for the lack of an OHS policy at CHAU; informants' views on hazards prevalent at CHAU; informants' views on the nature of accidents and incidents at CHAU; and chapter summary.

5.2 OVERVIEW OF CHALIMBANA UNIVERSITY

Currently, CHAU only has one campus where all its academic programmes are offered. The campus is located in Chongwe District and its physical location is approximately 57km from the Lusaka city centre. The University was first established as a training centre for community teachers in 1939. After a series of changes to its structure, it was pronounced as a university in 2013 under the Statutory Instrument Number 111 of 2013 (CHAU, n.d.). The University has approximately 117 staff, of which 77 are academic, while the other 40 are non-academic. Currently, the University has an estimated 14,690 students enrolled in various programmes.

5.3 BIOGRAPHICAL DETAILS OF THE INFORMANTS

In the opening chapter of this thesis, it was indicated that the study employed a qualitative research design that collected primary data using semi-structured interviews that were administered to 31 key informants. As indicated under Section 1.8.5.2.1, the informants of the study were selected using purposive sampling because they possess valuable information that is

relevant to the development of an OHS policy for CHAU. As such, sections 5.3.1, 5.3.2, and 5.3.3 discuss the factors that made the said informants relevant to this study.

5.3.1 Relevance of positions occupied

All the key informants of the study were purposively sampled because of the relevance of the positions they held. As illustrated in Table 1.1 in chapter one of this thesis, the study collected data from two main categories, key informants from CHAU and key informants from outside CHAU. It was important to collect data from the said categories to ensure that the process of developing an OHS policy for CHAU is not dominated and influenced by a few influential individuals and groups as alleged by the group theory, elite theory, and rational choice theory. This categorisation is further illustrated in Figure 5.1 below. The segregation of the said two categories of informants is discussed below.

5.3.1.1 Key informants from Chalimbana University

There were six groups of key informants that were drawn from CHAU, and these are:

- Top level managers: This category includes the VC, DVCs, Registrar, Bursar, Deans and Directors, Librarian, and Dean of Students Affairs. Only 8 of the top level managers were purposively sampled. They were deemed important to the study because they are the principal officers at CHAU who are tasked with the responsibility to manage the University strategically. Additionally, they are responsible for instilling a positive health and safety culture at the University (see Cockburn, 2012:18; Reese, 2017:37; Perez, 2019:49; McKinnon, 2020:73-74).
- Middle level managers: This group of key informants included HODs and managers of units. A total of 6 middle level managers were purposively sampled. These were important to the study because they have a myriad of individuals that they supervise. In addition, they are charged with the responsibility to manage the units they are responsible for.
- Lower level managers: Generally, these included supervisors. Only 4 lower level managers were purposively sampled for this study. Their participation in this study was imperative because they are the grassroots managers who oversee the work that staff perform on a daily basis.
- Staff representatives: Only three 3 staff representatives were purposively sampled. These were important to the study because they are part of the staff union executive. As such, they are charged with the responsibility to speak on behalf of workers on all work-related matters, including OHS.
- Student representatives: There were 3 student representatives that were purposively sampled. Their responsibility to safeguard the interests of students, including OHS, made them relevant to this study.

- University police officer: There was 1 police officer that was purposively sampled for this study. The Zambia Police Service has established a police post at CHAU to provide security to the University community. While the officers manning the police post are not workers of the University, the post is located on University territory. As a result, the researcher classified the officer interviewed as an internal key informant. The officer was purposively sampled because safety at a University is critical to the management of health and safety.
- Control Seven Security (C7S): 1 representative from the security company that was subcontracted to provide security services at CHAU was interviewed. An interview with the said official was important because it enabled the study to establish what OHS responsibilities have been performed by contractors at the University.

5.3.1.2 Key informants from outside Chalimbana University

As earlier stated, the study also interviewed key informants from organisations external to CHAU. The external key informants were drawn from the following:

- Ministry of Labour and Social Services: This Ministry was purposively sampled because it is responsible for all labour matters in Zambia, including OHS. It has a department dedicated to health and safety. As such, 1 officer well-versed in the area of OHS was interviewed by the researcher.
- Ministry of Education: CHAU falls under this Ministry. The researcher believed that he would obtain useful information from the Ministry pertaining to this study. Consequently, the Ministry was purposively sampled. The researcher interviewed 1 official from the Ministry.
- Occupational Health and Safety Institute (OHSI): The Institute was established by the Occupational Health and Safety Act of 2010 to manage health and safety in the country. The Director of the Institute has the power to instruct an organisation to develop a health and safety policy (Occupational Health and Safety Act of 2010). In view of the foregoing, the Institute was purposively sampled. As a result, 1 official from the Institute was interviewed.
- Higher Education Authority (HEA): The Authority was established by the Higher Education Act of 2013 to regulate public and private universities. In view of the foregoing, the Authority was purposively sampled. Consequently, 1 official from the Authority was interviewed.
- Chongwe Municipal Council - Fire Department: CHAU is in Chongwe District and there is only one fire department. Therefore, the researcher purposively sampled

the fire department in order to collect information on how the two institutions can work together against fire hazards. 1 official from the Chongwe Municipal Council Fire Department was interviewed.

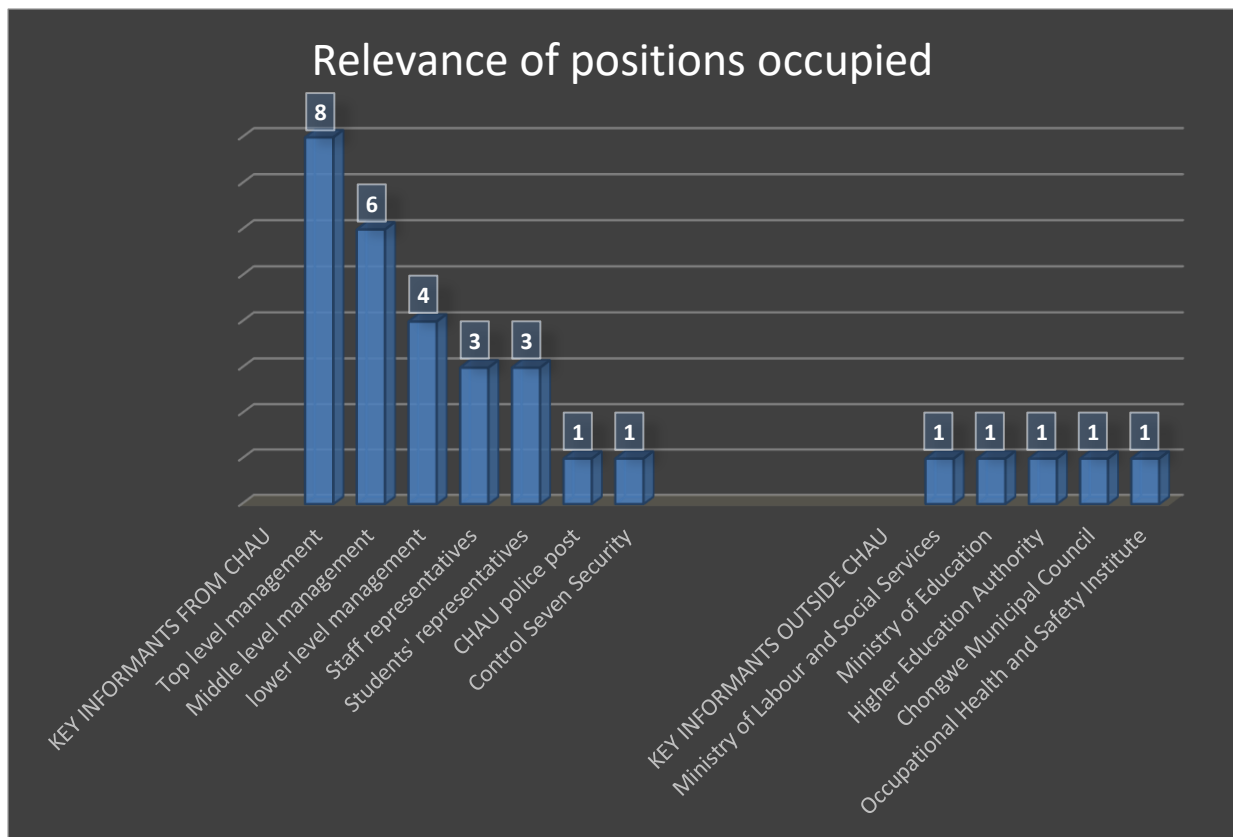


Figure 5-1: Relevance of positions occupied (Source: Researcher's field data, 2022/2023)

5.3.2 Longevity of occupancy in the current position

Figure 5.2 below shows that only 13% of the total number of informants were in their current positions for less than a year. The Figure also shows that the majority of the informants (57%) had stayed in their current positions for 1 to 3 years. In addition, the said Figure shows that 27% of the informants spent 4 to 6 years in their current positions. Furthermore, Figure 5.2 below shows that only 3% of the informants had been in their current positions for more than 6 years. Overall, the findings of the study have shown that the majority of the informants (84%) spent 1 to 6 years in their current positions. This illustrates that the key informants had spent enough time in their current positions to provide relevant information for the development of an OHS policy for CHAU.

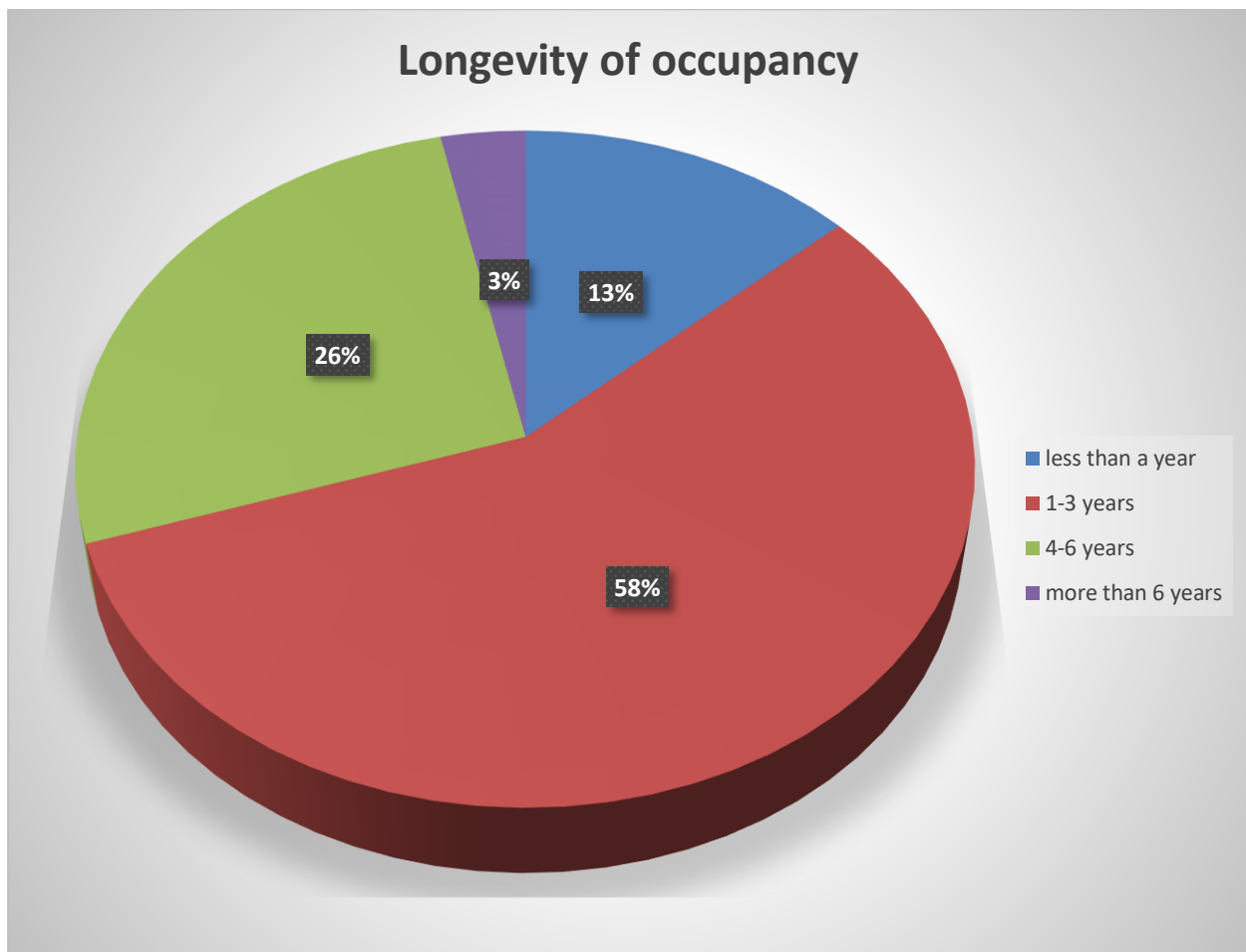


Figure 5-2: Longevity of service in the current position (Source: *Researcher's field data, 2022/2023*)

5.3.3 Level of education

Figure 5.3 below shows that the majority of the key informants possessed at least a bachelor of arts degree. For instance, only 10% of the informants did not have a degree. However, these were already enrolled in a bachelor's degree programme. Additionally, 43% of the informants had a master's degree, 20% were pursuing a PhD, and 17% had a PhD. Overall, this demonstrates that 80% of the informants had a master's degree as their minimum qualification. The foregoing demonstrates that the education level of the key informants was adequate to enable them to understand and articulate information relevant to the development of an OHS policy for CHAU.

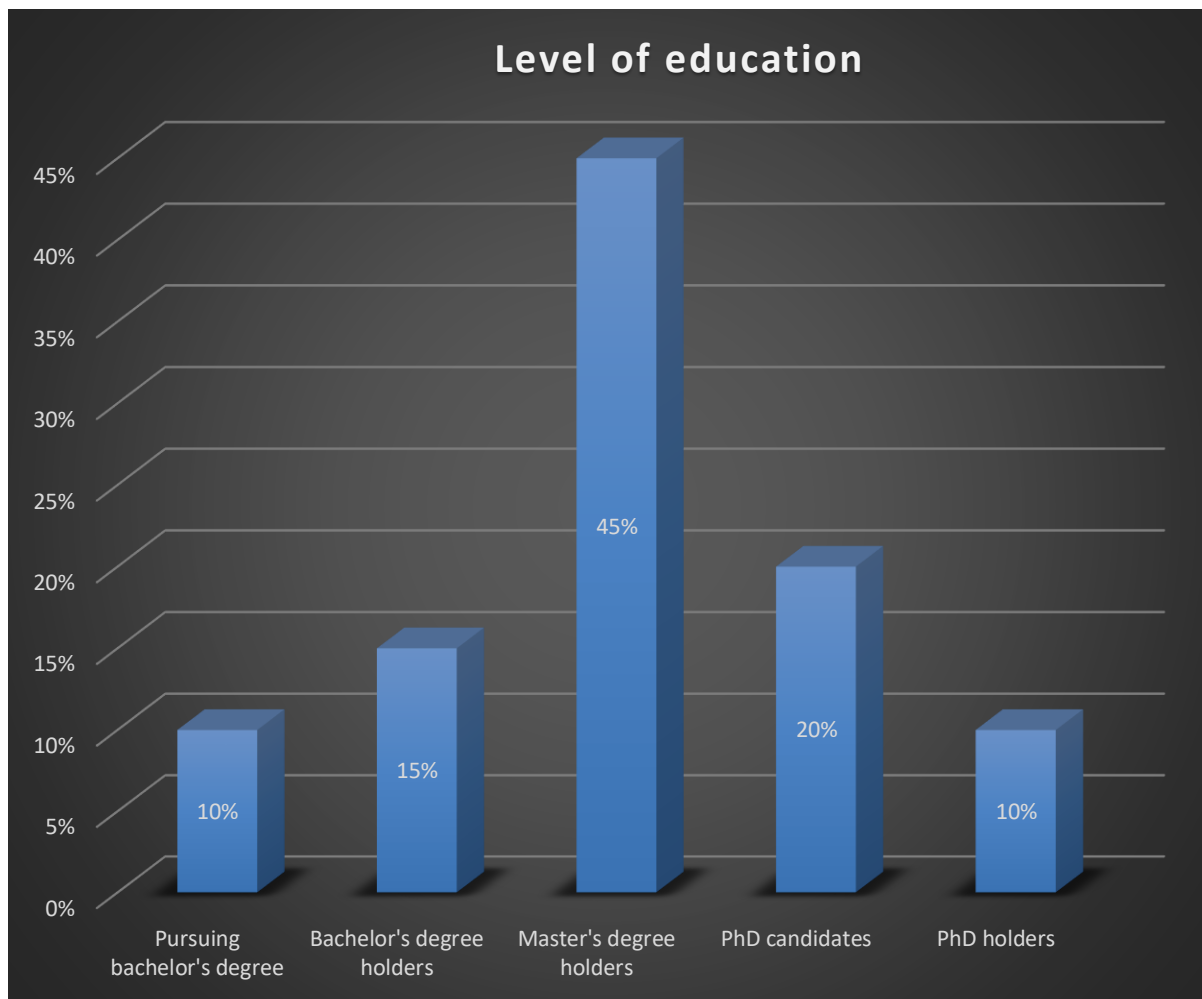


Figure 5-3: Level of education (*Source: Researcher's field data, 2022/2023*)

5.3.4 Gender distribution

Females informants in this study were in the minority as illustrated in Figure 5.4 below. Female informants only accounted for 37%, while males accounted for 67%. This shows that men still dominate key institutional positions in organisations in Zambia.

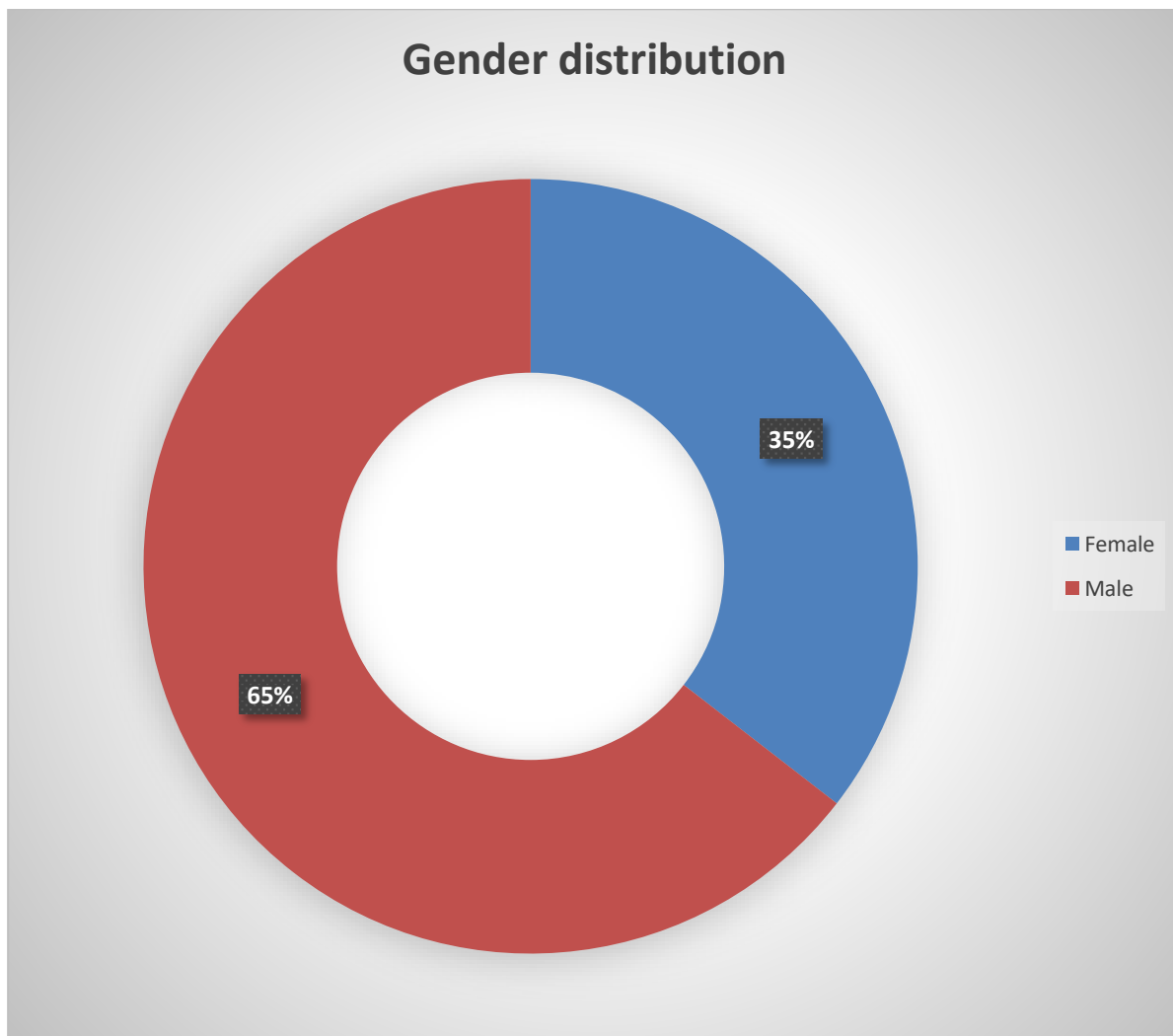


Figure 5-4: Gender distribution (Source: Researcher's field data, 2022/2023)

The above discussions on longevity of occupancy and education level show that the key informants of this study were suitable for this study. This is because their levels of education were adequate to allow them to comprehend and articulate their experiences, including those bordering on OHS. Additionally, they had occupied their offices long enough to understand what their duties and responsibilities entail. The foregoing made it possible for the informants to provide valuable information on the development of an OHS policy for CHAU. This information would have been difficult to collect from individuals who did not meet the above-mentioned biographical details.

5.4 DATA ANALYSIS OF SEMI-STRUCTURED INTERVIEWS

This study undertook a qualitative research approach, discussed under Section 1.8.2, using a case study research design, discussed under Section 1.8.3. The researcher went about collecting secondary data and primary data as described under sections 1.8.4.1 and 1.8.4.2, respectively. While semi-structured interviews were considered the key tools for collecting empirical evidence, the study also collected relevant empirical evidence by reviewing available institutional and government documents.

The data collected in this study was analysed using content analysis. Content analysis was used because it is suitable for data that is collected using open-ended interviews. Furthermore, content analysis was used because it is appropriate for data that is in form of text (Shava, Hleza, Tlou, Shonhiwa & Mathonsi, 2021:554). The foregoing aligns with Hsieh and Shannon (2005:1278) who define content analysis as the *“interpretation of content of the text data through the systematic classification process of coding and identifying themes or patterns.”* Thus, in this study, the researcher analysed the data by first transcribing it. Among other things, the transcription process involved deidentifying the data. This was done by assigning identifiers to the responses of the key informants (Stuckey, 2014:7). The identifiers given to the different groups of informants were as follows:

- There were 8 top level managers, as such, they were assigned identifiers as follows: TM1, TM2, TM3, TM4, TM5, TM6, TM7, TM8
- There were 6 middle level managers, and they were assigned the following identifiers: MM1, MM2, MM3, MM4, MM5, MM6
- The study interviewed 4 lower level managers and they were assigned the following identifiers: LM1, LM2, LM3, LM4
- 3 staff representatives were interviewed, and their identifiers were as follows: ST1, ST2, ST3
- The 3 student representatives that were interviewed were assigned the following identifiers: SR1, SR2, SR3
- The police officer from CHAU police post was identified as ZP1
- The representative from C7S was identified as CC1
- The identifier for the key informant from the Ministry of Labour and Social Services is ML1
- The identifier for the official from the Ministry of Education is ED1
- The informant who was drawn from HEA was identified as HE1
- The identifier for the key informant from Chongwe Municipal Council – Fire Department is FD1
- The researcher allocated the key informant from the OHSI the identifier OH1.

Once the allocation of identifiers was completed, the researcher created categories by placing similar data under the same category. Ultimately, nine categories emerged out of this process as follows:

- Category 1: Understanding of OHS policy
- Category 2: Hazards and accidents prevalent at CHAU
- Category 3: Existing organisation of OHS at CHAU
- Category 4: Existing arrangements for OHS at CHAU

- Category 5: Challenges of OHS management at CHAU
- Category 6: Justification for an OHS policy at CHAU
- Category 7: Preferred OHS policy statement for CHAU
- Category 8: Preferred organisation of OHS at CHAU
- Category 9: Preferred arrangements for OHS at CHAU

This categorisation enabled the study to develop an appropriate, proactive, and comprehensive OHS policy for CHAU. Discussions on data collected using semi-structured interviews follow next.

5.5 INFORMANTS' UNDERSTANDING OF OCCUPATIONAL HEALTH AND SAFETY POLICY

This section sought to establish if the informants understood what an OHS policy is. This was imperative to this study because it enabled the researcher to determine the extent to which the informants understood the focus of the study. As such, the key informants were asked the following question: *“In your own words, what is an OHS policy?”* Given that this is a qualitative study whose findings relied significantly on collecting data from informants in possession of useful information, it was imperative for the researcher to collect data from individuals who are well-vested with relevant information (see Cresswell, 2014:239; Etikan *et al.*, 2015).

In this study, the adopted definition of an OHS policy under Section 3.2 is *“the embodiment of management’s acceptance of the responsibility to keep the workplace healthy and safe by committing to developing mechanisms for eliminating and/or controlling occupational hazards in their organisation.”* The foregoing definition highlights the fact that an OHS policy is a demonstration by management that they are committed to keeping the workplace healthy and safe, at all times. The definitions of an OHS policy provided by the informants are varied, however, they all place emphasis on the fact that an OHS policy focuses on providing guidelines that are aimed at promoting health and safety at the workplace. Table 5.1 below presents the various definitions provided by informants from CHAU.

Table 5-1: Selected informants’ definitions of occupational health and safety policy

S/N	SELECTED DEFINITIONS OF OCCUPATIONAL HEALTH AND SAFETY POLICY
1.	A policy ensuring that staff and students are mentally and physically safe at all times at the university.
2.	A policy providing guidelines for the safety and health of all workers and students.
3.	A policy guaranteeing a healthy and safe learning and working environment by providing the required PPEs and equipment.
4.	Management guidelines on how the entire organisation should prevent accidents and diseases at the workplace.
5.	Guiding principles on how to safeguard the welfare of staff and students at a University.
6.	It is a policy aimed at implementing health and safety measures at a given workplace.

7.	Institutional specific guidelines on how everyone must act to ensure that their health and safety and that of others is not at risk.
8.	An OHS policy is a document that provides guidelines and procedures for managing health and safety in an organisation.
9.	It is a document that contains regulations and guidelines on all matters related to the health and safety of staff and students.
10.	Management guidelines to ensure that everyone at the workplace is free from physical and psychological harm in order to promote optimum productivity.
11.	It is a written document produced by various stakeholders to govern the management of health and safety in an organisation.
12.	A document that demonstrates the seriousness that top level management attaches to the safety and health of its workers.
13.	A document that contains guidelines focusing on how employers intend to protect workers from getting injured or sick during the course of their work.

Source: Researcher's field data, 2022/2023

From the definitions above, it is clear that the key informants of the study generally had a fairly good understanding of what an OHS policy is. This is demonstrated by the fact that the said definitions have highlighted four key factors related to health and safety management. The first is that they recognise that an OHS policy focuses on preventing the effects of occupational hazards and risks. For example, Key Informant TM3 defined an OHS policy as follows:

“Management guidelines on how the entire organisation should prevent accidents and diseases at the workplace.”

The above definition conforms to definitions provided by reputable international organisations. For instance, the IOSH (2021) posits that an OHS policy is *“a document outlining an organisations commitment and approach to managing health and safety in the workplace.”*

The second is that the definitions by the informants demonstrate that an OHS policy must be spearheaded by the management of an organisation. For example, Key Informant ST1 defined an OHS policy as:

“A document that demonstrates the seriousness that top level management attaches to the safety and health of its workers.”

The foregoing definition agrees with Baksh (2019) who argues that *“an OHS policy is an employer's written commitment to the health and safety of both their employees and their workplace.”*

The third is that the definitions provided by the informants take into account the significance of collaboration in the development of an OHS policy for an organisation. For instance, Key Informant LM3 stated that an OHS policy is:

“a written document produced by various stakeholders to govern the management of health and safety in an organisation.”

This definition conforms to best practices in OHS, which require that all relevant stakeholders in an organisation are involved in the process of managing health and safety, including the development of an OHS policy (see ISO, 2018:10).

The fourth is that the definitions by the informants highlighted the significance of every organisation developing its own OHS policy, which is appropriate to its needs. For instance, Key Informant LM1 defined an OHS policy as:

“Institutional specific guidelines on how everyone must act to ensure that their health and safety and that of others is not at risk.”

The definition corresponds to the argument by reputable international organisations like the ILO (2009a:5-6) that posit that every organisation should develop an OHS policy that is suited to its size, type, and nature.

In addition to the four factors identified above, the definitions by the informants have included two factors that are missing from the definitions provided in this study. The first is the scope of the policy. Below is a definition of an OHS policy by Key Informant MM2:

“An OSH [occupational safety and health policy] is a document that contains regulations and guidelines on all matters related to the health and safety of staff and students.”

The foregoing definition is specific to a university set up and identifies staff and students as specific categories of individuals to be covered by an OHS policy. This is important because it identifies who will be covered by an OHS policy. This conforms to best practices in OHS, which require every OHS policy to indicate who will be covered by it (see ISO, 2018:30; FFVA Mutual, 2022).

The second is the justification for an OHS policy. Below is a definition by Key Informant TM2:

“An occupational safety and health policy is a set of guidelines by management to ensure that the work environment is safe and healthy. It focuses on ensuring that everyone is free from physical and psychological harm in order to promote optimum productivity.”

The above definition identifies promotion of optimum productivity as a justification for having an OHS policy in place. This is important because it demonstrates the importance of an OHS policy in ensuring that an organisation achieves its objectives.

As stated earlier, the informants from CHAU have a fairly good understanding of what an OHS policy is. This study deduces that this is because the majority of them have a degree at the very least. As such, despite the University not having an OHS policy, most of the staff have the basic understanding of what an OHS policy is.

5.6 INFORMANTS' VIEWS ON FACTORS RESPONSIBLE FOR THE LACK OF AN OCCUPATIONAL HEALTH AND SAFETY POLICY AT CHALIMBANA UNIVERSITY

Under this section, the study sought to establish why CHAU does not have an OHS policy. As such, the informants drawn from the University were asked the following question: *"Why does CHAU not have a health and safety policy?"* This question was relevant because it helped to uncover factors that have made it difficult for the University to establish an OHS policy.

The responses of the informants revealed that the major reason why CHAU does not yet have an OHS policy is because OHS is not prioritised at the University. Key Informant ST1 had the following to say about why the University does not yet have an OHS policy:

"OHS is competing with other pressing matters and it seems to be secondary all the time. It is not prioritised."

In the same vein, Key Informant MM3 stated that:

"There is lack of willingness from management and government to prioritise OHS at the [Chalimbana] University."

Additionally, these views were echoed by Key Informant TM2 who responded as follows:

"Honestly speaking, an OHS policy has not been top of the list of priorities. The organisational structure of Chalimbana University is still being developed after the institution was declared a University in 2013. As a result, there is a lot of work that is ongoing in relation to the establishment of policies and guidelines. Given that the development of an OHS policy needs to be guided by other policies in the University, we are still in the process of developing other policies."

This finding confirms to the argument by Hughes and Ferrett (2016:52) that in order for an organisation to develop an effective OHS policy, top management must show commitment and

leadership, among other things. Therefore, given that the top management at CHAU has not shown commitment to OHS, it is not surprising that the University has no OHS policy.

In view of the foregoing, this study deduces that an OHS policy has not been a priority because there is no legal mandate for the University to develop one.

5.7 INFORMANTS' VIEWS ON HAZARDS PREVALENT AT CHALIMBANA UNIVERSITY

Under this section, the study sought to identify the specific hazards that are prevalent at CHAU. To do this, all categories of the key informants drawn from CHAU were asked the following question: *"What specific hazards exist at CHAU?"* This question was important because it uncovered the hazards that members of the CHAU community are exposed to. Additionally, it provided necessary information that was used to determine the appropriate arrangements for managing OHS at the University (see ILO, 2009a:11-13; ISO, 2018:17-19). Additionally, uncovering of hazards at CHAU helped to strengthen the argument that universities, like other organisations, have their own peculiar hazards that need to be managed.

The responses of the key informants drawn from CHAU unearthed a myriad of hazards that are prevalent at CHAU. To facilitate analysis and presentation of the said hazards, the researcher categorised the hazards at CHAU into five main categories as illustrated in Table 5.2 below.

Table 5-2: Categories of hazards prevalent at Chalimbana University

S/N	CATEGORY OF HAZARDS	SPECIFIC HAZARDS
1.	Physical	• Old buildings • Poor design of buildings • Slippery floors • Animals • Sharp instruments • Road usage • Usage and storage of dangerous equipment • Unrestricted entry • Aggrieved students • Fire hazards • Electrical hazards • Wear and tear
2.	Chemical	• Asbestos • Laboratory chemicals • Dust
3.	Biological	• Poor sewer system • Erratic water supply • Indiscriminate sexual relations • Overcrowding • Dogs • Mosquitoes

4.	Ergonomical	• Lifting heavy loads • Prolonged standing • Awkward posture • Bright screens
5.	Psychosocial	• Sexual violence and harassment • Abnormal workload • Long working hours • Alcohol and drug abuse

Source: Researcher's field data, 2022/2023

5.7.1 Physical hazards

As discussed under Section 2.5.3.2 of this thesis, physical hazards include excessive noise and lighting, extreme weather (too hot or too cold), and recurrent vibration of the whole body or parts of it, among others (Hughes & Ferret, 2016:402-418; ILO, 2016:16). In relation to CHAU, the key informants pointed out the following as the physical hazards prevalent at the University:

5.7.1.1 Old buildings

Key informants such as TM2, SR1, LM4, MM5, and ST1 were concerned about the state of the offices, hostels, and lecture rooms at the University. Their major concern was the structural integrity of the buildings at the University and their ability to accommodate the current University community that has exponentially grown since CHAU was built in 1930s. The views of Key Informant TM2 personified this concern:

“The buildings at this campus have never been renovated since they were built in the 1930s. This means that there has been no effort to reinforce the strength of the structures since they were built. It is a cause for concern because the numbers at the University have more than doubled and we do not know if the structures are strong enough to support us all. The fear is that one day some structures may collapse and injure people.”

This hazard is not unique to CHAU. There is evidence that other universities have identified it as a possible occupational hazard. In England, the University of Cambridge (2022:7) has established a unit responsible for maintaining all structures and premises of the University to ensure that they are favourable for all forms of work. This demonstrates that other universities, like the University of Cambridge, which was established over 200 years ago, are aware that old structures need to be maintained to negate injuries arising from collapsing buildings due to compromised structural integrity.

In view of the foregoing, it can be deduced that the OHS policy for CHAU should establish arrangements for maintaining the infrastructure at the University.

5.7.1.2 Poor design of buildings

Another physical hazard that the key informants at CHAU pointed out is the poor design of buildings at the University. The major concerns brought out by the informants of the study such as LM1, MM3, MM6, TM3, SR2 are steep stairs, poor ventilation, burglar proof windows in laboratories, and steps along the corridors at CHAU. These are discussed below.

Steep stairs: According to the key informants, some stairs, as illustrated in Figure 5.5 below, are too steep. This, they contended, is an ever-present risk of falling to students and staff, especially for those who are blind and differently-abled. Additionally, the findings of this study established that the informants believed that the steep stairs made it difficult for blind and differently-abled students to navigate the University. This concern was aptly elaborated by Key Informant LM1 who indicated that:

“Our blind colleagues and those using a wheelchairs find it difficult to move from one place to another because of the stairs. They have to rely on someone to walk with them all the time. Without help, they can easily fall and break some bones. Because of this, our University is not user-friendly to the differently abled.”



Figure 5-5: Steep stairs at Chalimbana University (Source: Researcher's archive, 2022/2023)

Poor ventilation: Key Informant TM2, MM3, and MM6 indicated that most buildings at CHAU including classrooms, offices, laboratories, the library, and offices are poorly ventilated. For instance, Key Informant MM3 revealed that:

“Our laboratories do not have chimneys to allow toxic substances such as gases and smoke to escape. This is dangerous especially to our students who do not have a lot of experience in conducting experiments.”

Similarly, Key Informant MM6 stated:

“In my unit, there is poor circulation of air because the window is poorly positioned. In most cases, when one gets a flu, it is not long before all of us get it. These buildings are more than 80 years old, so, it is understandable that they were poorly designed. However, something needs to be done because we have more than 5 people in a small space that is poorly ventilated.”

Burglar proof windows in laboratories: Key Informant TM3 bemoaned the poor design of laboratories at CHAU. The said informant stated that the laboratories at the University were not safe for use by staff and students because of the burglar bars that had been installed on all the windows. The informant argued that installing burglar bars on windows would potentially make it difficult for staff and students to quickly exit the laboratories in the event of an emergency. Key Informant TM3 provided the following explanation against the installation of burglar bars on laboratory windows:

“What happens if a fire breaks out in the laboratory when there is a number of students? Everyone will try to get out using the doors when they can just open the windows and exit. If the fire is in the middle of the lab [laboratory], those behind it will have to run past it to make it out safe if the windows are not accessible. Putting burglar bars on windows in laboratories is very dangerous. They must be removed.”

Steps: As illustrated in Figure 5.6 below, some corridors at CHAU have small steps. Key Informant MM1 stated that the steps along the corridors at CHAU pose a risk of falling to staff and students. This is because they can easily trip and fall while walking.



Figure 5-6: A step along a corridor at Chalimbana University (Source: Researcher's archive, 2022/2023)

In view of the foregoing hazards associated with the poor design of CHAU, the study infers that the OHS policy for the University should establish measures for protecting workers, students, visitors, and contractors from injuries likely to be caused by steep stairs, poor ventilation, burglar bars on laboratory windows, and steps on corridors and other walkways.

5.7.1.3 Slippery floors

Key informants SR, MM5, LM 4, and TM3 are some of the informants who identified slippery floors as a physical hazard at CHAU. The informants stated that slippery floors pose a great risk of falling to members of the University community. According to the key informants, there are two major factors that make floors slippery at CHAU. First, it is inappropriate floor tiles that have been installed on the floor at the University. Key Informant SR1 stated that:

“A number of students fall along the corridors at this University. The tiles are too smooth and without any grip. A lot of times, students rush from one lecture room to another to avoid being late. The rushing means they have to walk very fast or even run. Because the tiles are too smooth, some of them end up falling and hurting themselves. People wearing shoes without grip, such as smart shoes, are at a higher risk of falling.”

The second factor is water floors. Key Informants TM3 noted that water from rain and leakages from water pipes is the main contributing factor to slippery floors at the University. For example, Key Informant TM3 uncovered the fact that some corridors at the University are constantly wet throughout the year due to leakages from water pipes in the toilets as illustrated in Figure 5.7 below. The said Key Informant explained that:

“Toilets near our offices have persistent leakages, which make our corridors wet. This is dangerous because one can easily slip and fall. We have had members of staff from our School falling due to wet floors. What makes it worse is that the floor tiles are too smooth, and when you add the element of water, falling is very easy.”



Figure 5-7: Wet floor at Chalimbana University (Source: Researcher’s archive, 2022/2023)

This finding confirms the assertion by Donagi *et al.* (2011) that falling on the same level is a common hazard in many workplaces. Furthermore, the finding justifies why OHS legislation in Zambia provides measures to prevent workers and other individuals from falling due to slippery floors (Factories Act of 1967).

In view of this finding, the study suggests that the OHS policy for CHAU should establish measures for preventing slips and falls associated with slippery floors. This will also enable the University to be in conformity with the provisions of the Factories Act of 1967.

5.7.1.4 Animals

The informants of the study such as Key Informants MM4, TM3, TM4, TM8, SR2, ST3, and LM3 indicated that members of the University community were exposed to risks posed by animals such as dogs, cattle, and snakes. Each one of these are discussed below.

Stray dogs: According to the aforesaid key informants, canines are a common sight at CHAU. Figure 5.8 below shows two different dogs within the premises of the University during the study. Key informant TM4 and TM8 asserted that the dogs that roam around the University come from nearby villages and staff residences. Key Informant TM4 expressed concern that dogs pose the risk of injuries from biting. The said respondent gave the following explanation:

“I cannot remember a day when I came to the office and did not see a dog roaming around the University premises. They are always present and sometimes, they charge at workers. These dogs are a danger because one can easily be bitten.”



Figure 5-8: Dogs at Chalimbana University (Source: Researcher's archive, 2022/2023)

Snakes: The responses of the key informants revealed that members of the University community at CHAU are also exposed to risks posed by snakes. Key informants ST3, LM4, and TM4 stated that there are a lots of thickets and grass in and around CHAU's environment as illustrated in Figure 5.9. They inferred that the said thickets and grass make it easier for snakes to breed and hide. As such, snakes are a common sighting at CHAU, especially at night (Key Informant MM4).

In addition, Key Informant MM4 revealed that, previously, CHAU was colloquially referred to as the “*Snake Kingdom*” due to the prevalence of snakes.



Figure 5-9: Tall grass and shrubs behind the administration offices at Chalimbana University (Source: Researcher’s archive, 2022/2023)

Cattle: Key Informant TM3 revealed that cattle were among the animals that posed a risk of injury to staff and students at CHAU. The informant stated that workers and students in the Department of Agricultural Science Education are at high risk of injury from cattle as they constantly interact with the said animals. The risk of injury is posed by the unpredictability in the behaviour of cattle. The foregoing concern was raised by Key Informant TM3 who stated that:

“While cows are usually not harmful, they can unexpectedly attack a student or member of staff and cause harm to them.”

Animals have also been identified as potential hazards in universities in other countries as well. This shows that CHAU is not the only university exposed to hazards and risks associated with animals. For instance, the University of Connecticut (2018), Illinois State University (2021), and Oregon State University (2021) have developed guidelines to manage animals on campus. This shows that the said universities are alive to the possibility of animals negatively affecting the health and safety of workers and students.

The threat posed by dogs at CHAU and other is a very serious one. During the process of data collection, the researcher was almost bitten by a dog. This study deduces that animal hazards related to dogs at CHAU are just another manifestation of the University's poor OHS culture. Therefore, the study infers that the OHS policy for CHAU should establish arrangements for managing occupational hazards and risks associated with dogs, snakes, and cattle.

5.7.1.5 Sharp instruments

The findings of this study revealed that sharp instruments were a major physical hazard at CHAU. Key Informant MM5 indicated that staff and students suffered minor, medium, and severe injuries due to sharp instruments. The sharp instruments that pose the risk of injury to the University community include knives and chipped cups and plates. Particularly, these pose the risk of injury to students and lecturers in the School of Early Childhood Studies (Key Informant MM5). Students enrolled in the said School undertake cooking activities, which require them to cut vegetables and meat using knives. In addition, the staff and students in the aforesaid School use ceramic cups and plates. When chipped, these can injure staff and students when washing and wiping (MM5).

Risks posed by sharp instruments are not unique to CHAU. This is because there is evidence that risks posed by sharp instruments exist in other universities as well. For example, Durham University (2021:31) has established measures for preventing injuries caused by sharp instruments. This shows that sharp instruments are also a risk at Durham University.

From the foregoing, the study infers that the OHS policy for CHAU should put in place guidelines for protecting workers and students from injuries likely to be caused by sharp instruments.

5.7.1.6 Road usage

Key informants TM2, MM5, and ST1 revealed that workers and students at CHAU are exposed to risks associated with road usage. With regard to workers, the informants stated that a number of staff are usually travelling by road due to the following reasons: going to and from work and attending conferences and meetings in other towns, among others. This exposes them to road traffic accidents that can result in fatal injuries (Key Informants TM2, MM5, and ST1). The concern over road usage was aptly explained by Key Informant TM7 who provided the following explanation:

“..... because lecturers have to drive long distances every day, they are exposed to RTAs [road traffic accidents]. No matter how careful one can be when driving, there is always some reckless driver who can hit [collide] into you. So, you see, the risk [of an accident] is high on these roads. In addition to driving from home to the University and back, members of staff at CHAU attend a lot of

workshops, trainings, conferences, research field trips, and observation of students on teaching practice. This means they travel to far-flung areas within the country by road. This also puts them at risk of accidents.”

The informants of the study stated that students at the University are also exposed to road traffic accidents. Key Informants TM2 and TM7 indicated that students travel for a number of University activities such as research, teaching experience, and sports, among others. These, they contended, expose them to road traffic accidents. Additionally, Key Informants TM2, TM7, and ST1 revealed that a number of students at CHAU stay in boarding houses outside the campus. As such, they have to cross the road when getting into campus and when getting back to their boarding houses. According to Key Informant TM7, the road that many students have to cross passes right in front of the main entrance to the University and does not have any speed humps as illustrated in Figure 5.10 below. As such, students are exposed to the risk of being bashed by vehicles. For example, Key Informant TM7 explained that:

“A student was once bashed by the roadside. There is need to put speed humps to avoid such from happening again.”

In addition to the foregoing, Key Informant TM3 expressed concern over the risks associated with students crossing the road when walking to and from CHAU by providing the following explanation:

That road [passing in front of the University’s main entrance] has been a hazard for a long time because there are no speed humps. Despite this knowledge, nothing is being done. Maybe management is waiting for more people to be killed [by vehicles] before they do something about it.

Road traffic accidents are not only a concern at CHAU. They have also been recorded at other universities. In Zambia, for example, two CBU students were killed by a speeding vehicle near the university entrance as they were heading to their boarding on 26th June 2023 (Kaumba, 2023). In the UK, the University of Huddersfield (2018:17) and (University of Birmingham (2020:26-27) have identified traffic accidents as potential risks and have since put in place measures to manage them.



Figure 5-10: Main road without speed humps at Chalimbana University (Source: Researcher's archive, 2022/2023)

The risk of road usage cannot be eliminated because workers and students have to travel by road for official duties. Therefore, the OHS policy for CHAU should put in place measures to alleviate as much as possible the risks associated with road usage.

5.7.1.7 Usage and storage of dangerous equipment

The findings of the study revealed that axes, hoes, ploughs, and slashers are among the dangerous equipment that pose the risk of injury to staff and students at CHAU. Key Informant ST1 revealed that staff and students in the Department of Agricultural Science Education are more exposed to the risk of injury because they use the aforesaid dangerous equipment during practical teaching and learning activities such as tilling the land, slashing tall grass, and cutting down trees, among others. Furthermore, Key Informant MM3 stated that the storeroom for the afore-mentioned dangerous equipment is so small that there is hardly any room for one to enter and pick out the tool(s) they need. Consequently, the said key informant lamented that the

foregoing increases the risk of someone tripping and falling on a sharp tool that can potentially cause injury to various parts of the body.

This finding is confirmation that work tools are indeed a potential hazard in workplaces. This is because they have been identified as one of the major potential causes of injury to workers by reputable international organisations that are well-vested in the area of OHS. For instance, the ISO (2018:12) emphasises the need to put measures in place to ensure that work tools do not pose a threat to the safety of workers and other individuals in an organisation. Furthermore, the law in Zambia provides measures for protecting workers from work tools (see Republic of Zambia, 2015a:9).

In view of this hazard, the study deduces that the OHS policy for CHAU should establish arrangements for protecting workers from risks associated with dangerous equipment.

5.7.1.8 Unrestricted entry to the university premises

Another physical hazard that was pointed out by the informants of the study is unrestricted entry to the premises of the University due to the lack of a fence. Key Informants TM2, CC1, and ZP1 strongly expressed concern about the lack of a fence around CHAU. They contended that without a fence, several unauthorised individuals, including criminals, may gain access to the University campus from various entry points. They posited that this situation exposes every member of the University community to physical attacks and theft by criminals. Key Informant LM3 revealed that there have been a number of thefts at the University that have been attributed to easy access by strangers into the University. For example, Key Informant LM3 stated that a few years ago, unknown people broke into her office and stole a computer, a printer, and other items. Key Informant TM2 aptly expressed this concern by saying:

“Generally, the University is easily accessible. One of the reasons is the lack of a wall fence. This means that anyone can walk into the campus at any given time of the day from any direction. This has opened up staff and students to theft and attack from criminals. While no one has been physically attacked yet, there is a chance that this might happen if a criminal decides to take advantage of the lack of restricted entry into the University. On the part of theft, a number of properties such as laptops, money, and clothes have been stolen from staff and students by people suspected to be from nearby villages that surround the University.”

In addition to the foregoing, Key Informant TM2 revealed that the construction of a wall fence around the University has not been possible because CHAU does not have a title deed for the

land it occupies. Instead, the land belongs to the Busoli Royal Establishment, which does not allow the construction of wall fences around any property under its jurisdiction.

Unrestricted access to university campuses is a common hazard among other Zambian universities as well. At UNZA, theft is rampant due to the University having several access points that are largely porous (Zambia Reports, 2018).

The foregoing hazard informs this study that the OHS policy for CHAU should put in place measures to restrict entry of unauthorised individuals into the University campus.

5.7.1.9 Aggrieved students

The findings of the study revealed that one physical hazard that is usually overlooked aggrieved students. It was revealed that students who fail tests, assignments, and examinations can potentially react violently by attacking their lecturers. For instance, Key Informant MM1 narrated that:

“As lecturers, we play a major role in determining the progression of our students because we are in charge of grading them. Sometimes, students who do not put in a lot of effort fail their examinations, and they call us sadists. While they mostly just complain, it is possible that one of them may decide to take physical action against their lecturers by beating them up. It may seem unlikely now, but you never know these things. We are increasingly having a generation of entitled students who believe that they should just be passing simply because they pay fees.”

This finding demonstrates that physical attack on lecturers by students is a genuine hazard in universities as it has also been reported in other universities. For example, at the University of Ilorin, a public university in Nigeria, a female lecturer was beaten into a coma by a student over a dispute relating to an academic task in November 2021 (Nseyen, 2021). The incident caused an uproar among lecturers at the said University and their representatives demanded the implementation of measures by management to ensure that such a thing does not recur.

Therefore, this study suggests that the OHS policy for CHAU should put in place arrangements to protect staff from physical attacks by students.

5.7.1.10 Fire hazards

Key Informants TM3, TM4, TM8, MM2, and ST1 are some of the informants of the study who pointed out the main fire hazards at CHAU. These include cooking and laboratory chemicals. With regard to cooking, the key informants indicated that cooking activities in students' hostels, CHAU

kitchen, and the School of Vocational and Practical Skills posed the greatest fire hazards at the University. To put the foregoing into perspective, Key Informant TM4 said that:

“On a normal day, cooking is not a problem. What makes it risky are mistakes and negligence. For example, when someone forgets to switch off a cooker and goes away leaving it unattended. Even when somebody falls asleep while cooking in their room. These are the kind of things that make cooking a danger to our property.”

In relation to laboratory chemicals, the findings of the study show that there are a number of chemicals in CHAU laboratories that have the potential to start a fire. For example, Key Informant TM3 indicated that some experiments require staff and students to use potassium and sodium in the laboratory. However, the said chemicals are known to react explosively, especially when they come in contact with water. This can potentially result into a fire.

Fire hazards are not only prevalent in Zambian universities. They have also been a source of concern in other universities in Africa. For instance, Kwame Nkrumah University of Science and Technology (2018) and Rhodes University (2019:8) in Ghana and South Africa, respectively, have developed fire management guidelines and procedures to alleviate the fire hazards in their universities. Furthermore, fire hazards are present at universities in developed countries as well. In Australia, fire hazards have been a source of concern at the University of Southern Queensland (2021) and Australian National University (2022).

In view of the foregoing, the OHS policy for CHAU should establish processes and procedures to manage fire hazards at the University.

5.7.1.11 Electrical hazards

The responses from the participants of the study unearthed two forms of electrical hazards that pose the risk of electrocution, fire, and bodily burns to members of the University community. The first one is naked wires that are prevalent in student hostels and classrooms. Key Informants TM7 and LM4 revealed that one of the main factors responsible for the prevalence of naked wires at CHAU is theft of sockets and vandalism, mostly by students. Specifically, Key Informant TM7 revealed that:

“A number of sockets are missing in lecturer rooms and student hostels due to vandalism and theft by students. Students have also made some illegal connections to allow themselves to cook from their rooms. Because of this, there are a number of naked wires, which you will find when you go around [the

University]. A lot of these wires have power supply. So, someone can easily die due to electrocution.”

The responses provided by Key Informant LM1 revealed that the second form of electrical hazards at CHAU is the fuel powered generator, which serves as an alternative power source at the University. The said key informant retorted that the main problem with the generator is that it is not adequately secured as illustrated in Figure 5.11 below. As such, it poses the risk of electrocution to staff, students, and other members of the University community. Key Informant LM1 expressed the risk associated with the generator as follows:

“The University [CHAU] has a generator which helps us with power supply when ZESCO [public enterprise responsible for supplying power] is off. The only problem is that it is not adequately secured. This means people can easily access it. Students are young and full of experiments. They may be drawn to tamper with it and end up being electrocuted.”



Figure 5-11: Poorly secured generator at Chalimbana University (Source: Researcher's archive, 2022/2023)

Just like CHAU, every other university needs electricity to function normally. As such, electrical hazards have also been cited as an occupational concern in other universities. At Kwame

Nkrumah University of Science and Technology (2018) in Ghana, measures to protect workers and students from electrical hazards have been established. This demonstrates that the said University has identified some electrical hazards in its environment. Similarly, Durham University (2021:31) has adopted the Electricity at Work Regulations of 1989 to curb the electrical hazards threatening the health and safety of its staff, students, visitors, and contractors, among others.

Therefore, this study suggests that CHAU should put in place measures to protect workers and students from the electrical hazards that are prevalent at the University.

5.7.1.12 Wear and tear of play equipment for infant learners

Tear and wear of play equipment for infant learners was identified as a form of physical hazard by key informants TM5 and MM5. The informants explained that CHAU has an Early Childhood Education Centre of Excellence, which enrolls infant learners between the ages of 3 to 6 years. Essentially, the Centre is used for practical training for teachers and caregivers passionate about working with children. At the Centre, there is a playground where a number of play equipment have been mounted as illustrated in Figure 5.12 below. They include swings and slides, among others. With time, the play equipment is bound to wear and tear, and this becomes a risk to the infant learners. Key Informant TM5 said the following when explaining the aforesaid hazard:

“The play equipment that we have [installed] for the children is meant to satisfy their need to play and have fun. However, if not properly maintained, they can get hurt. After being used for some time, it is only natural that wear and tear will kick in. One example of wear and tear is a swing breaking. This can lead to a child breaking their bones if he/she falls from it. Another example is a slide getting chipped. This can cause serious cuts to the children when sliding.”



Figure 5-12: Play equipment for infant learners at Chalimbana University (Source: Researcher's archive, 2022/2023)

This finding appears to be uncommon among universities within and outside Africa as it has not been highlighted in any of the university OHS policies reviewed in this study. This demonstrates that every workplace is different and has certain unique hazards that are specific to its environment (see Hughes & Ferrett, 2016:21-22). Consequently, this finding justifies why this study must develop an OHS policy that is appropriate and specific to CHAU.

In view of the foregoing, the OHS policy should provide for the establishment of guidelines to protect infant learners and other members of the University community from injuries associated with wear and tear.

5.7.2 Chemical hazards

The informants of the study also identified a number of chemical hazards that threatened the health and safety of workers, students, infant learners, visitors, and contractors. The specific chemical hazards pointed out by the key informants are discussed below.

5.7.2.1 Asbestos

Asbestos was pointed out by Key Informants TM2 and TM3 as a form of chemical hazard prevalent at CHAU. The said informants stated that almost all the buildings at the University have a roof made out of asbestos. Figure 5.13 below shows a building with an asbestos rooftop at CHAU. Key Informant TM2 expressed concern that CHAU had maintained asbestos rooftops despite the wide-spread information that the material increases the risk of cancer in individuals who inhale it for a prolonged period of time. Key Informant TM3 said the following about the asbestos rooftops at CHAU:

“The management needs to work with the government and other well-wishers to change all asbestos rooftops because they are harmful to humans. This is a known fact, that is why you hardly find hardware companies selling asbestos roofing sheets nowadays.”



Figure 5-13: A building block with an asbestos rooftop at Chalimbana University (Source: Researcher's archive, 2022/2023)

An interview with Key Informant TM2 revealed that replacing the asbestos rooftops at CHAU would be a very costly venture that the University cannot afford. As such, the said informant, stated that the best chance the University had to protect its staff and students from risks associated with asbestos is to wait for the government to complete the construction of the new offices, classrooms, and hostels that are located a few metres away from the current campus. Unfortunately, it was revealed that the construction works were currently on hold.

Asbestos as a health and safety concern is not only prevalent in developing countries like Zambia. It is also present in developed countries such as England. For instance, in an effort to avert the health risks associated with asbestos such as cancer, Durham University (2021:31) has adopted England's Control of Asbestos Regulations of 2012. This illustrates that Durham University is aware of the asbestos risks prevalent in its environment.

In view of the foregoing, this study deduces that the OHS policy for CHAU should provide for the establishment of guidelines to alleviate the risks associated with exposure to asbestos.

5.7.2.2 Laboratory chemicals

Interviews with key informants revealed that there are a number of chemical hazards that threaten the well-being of workers and students at CHAU. Key Informants TM3, ST1, and MM3 revealed that staff and students at CHAU are exposed to chemical hazards in two ways. The first is through laboratory experiments, which require staff and students to handle chemicals. The findings of the study show that, while there is a myriad of chemicals used in laboratories as illustrated in Figure 5.14 below, potassium and sodium posed the greatest risk as they are very reactive. The foregoing was aptly explained by Key Informant TM3 as follows:

"Potassium and sodium are very dangerous chemicals, especially when mixed with water. A few years ago, a fire broke out in one of our laboratories, and part of the roof was burnt. The real cause of the fire is not known up to now, but we confidently assumed that it was caused by potassium and sodium. When you look at the chemicals we have in the lab [laboratory], potassium and sodium have the greatest potential of starting a fire."



Figure 5-14: Chemicals in a laboratory at Chalimbana University (Source: Researcher's archive, 2022/2023)

The second means through which staff and students are exposed to chemicals is the preparation of pesticides. Key Informants MM3 and ST1 singled out Chloroform as the most hazardous pesticide that is handled by staff and students in the Department of Agricultural Science Education. When expressing concern about Chloroform, Key Informant MM3 stated that:

"We handle a lot of chemicals, which are dangerous to our health, especially Chloroform, which we use to kill pests. It is a very effective pesticide, but it is not good for us [staff]. We do not have adequate protection [PPE] so, we are usually exposed when mixing the chemical [Chloroform] with water. We are exposed even during the spraying process in the fields. I can tell you now that this chemical can kill someone if poorly handled."

Chemical hazards are common in universities, especially those offering science based programmes. In Africa, chemical hazards have been reported at universities in Ghana, Zimbabwe, Kenya, and Tanzania (see Engida, 2011:46). Outside the continent, chemical hazards are a well-known health and safety concern at some universities in Canada, England, USA, and Hong Kong. For example, the Chinese University of Hong Kong (2014:7) and University of Hong Kong (2019)

have both taken measures to manage chemical hazards. This shows that chemical hazards are not unique to CHAU.

Given the prevalence of chemical hazards at CHAU, this study suggests that the OHS policy for CHAU should establish measures to protect the University community from the harmful effects of chemicals.

5.7.2.3 Dust

Dust was pointed out as a chemical hazard at CHAU by key informants ST1, ST2, ST3, MM2, MM3, MM4, MM5, TM1, and TM2. Interviews with the said key informants revealed that there are two forms of dust that threaten the health of workers, students, and infant learners at CHAU. First, it is soil dust, which is wide-spread at the University due to lack of pavers as shown in Figure 5.15 below. Consequently, the informants of the study indicated that offices, students' hostels, and classes are ever dusty. This, they contended, presents the risk of respiratory diseases among members of the University community. For example, Key Informant MM5 stated that:

“Our offices and classrooms for the infant learners require dusting every day because of the dust outside. Our children are usually down [sick] with flu, especially when it becomes windy in July and August.”

The foregoing was echoed by Key Informant TM1 who lamented that:

“Staff and students under my unit are susceptible to flu infections because of the excessive dust that settles on floors, tables, and desks on a daily basis.”



Figure 5-15: Dusty environment outside the Chalimbana University main library (Source: Researcher's archive, 2022/2023)

The second form of dust that was identified at CHAU is chalk dust, which emanates from the use of chalk in classrooms. Key Informant TM2 revealed that CHAU largely still uses blackboards. This means that lecturers have to use chalk when teaching. The said Informant contended that the continued use of chalk is a danger to the health of the lecturers and students as it is a known cause of respiratory challenges.

Dust is not a hazard that is only prevalent at CHAU. It has been reported at other universities as well. For example, the HSE (2006:10) pointed out that some universities in the UK were faced with hazardous wood dust. Although the nature of the dust may differ, the risk they pose to workers and students is the same. For instance, the HSE (2006:10) identified respiration diseases are a major risk of wood dust. This is the same risk identified by informants from CHAU in relation to soil and chalk dust.

Thus, it is imperative for CHAU to establish measures to protect the University community from the risks posed by dust.

5.7.3 Biological hazards

As discussed under Section 2.5.3.4 of this thesis, biological hazards may include bacteria, viruses, fungi, and yeast, among others (Care Net Consultants, 2021). These can potentially

cause illness and even death. Interviews with key informants from CHAU revealed that members of staff, students, and infant children at the University are exposed to the following biological hazards: dilapidated sewer system, inconsistent water supply, sexually transmitted diseases (STIs), and animals. These are discussed hereunder.

5.7.3.1 Poor sewer system

Responses from Key Informants TM2, TM3, ST1, MM6, LM3, and LM4 revealed that the sewer system at CHAU is deplorable because it is very old. As a result, sewer pipes sometimes, leak, get blocked or burst. For example, Key Informant LM4 stated that, sometimes, the sewer system at CHAU fails because it is too old to sustain the growing population at the University. Correspondingly, Key Informant TM2 indicated that there are times when sewer pipes at the University have burst, causing faecal matter to contaminate drinking water. Additionally, Key Informant TM3 stated that drinking water at CHAU can easily be contaminated by leakages from damaged sewer pipes because the water used at the University comes from boreholes. Key Informants TM2, ST1, and LM4 expressed concern that the contamination of drinking water at the University poses the risk of waterborne diseases such as diarrhoea.

This biological hazard appears to be rampant among public universities in Zambia. This is because it has also been reported at other universities such as Kwame Nkrumah University, Mulungushi University, and UNZA (Namaiko, 2018).

In view of the foregoing, the study suggests that the OHS policy for CHAU should put in place measures for improving the sewer system at the University.

5.7.3.2 Erratic water supply

Key Informants LM1, TM7, LM4, and ST1 pointed out that CHAU experiences erratic water supply. For instance, Key Informant LM1 stated that there are a number of interruptions in the supply of water at CHAU and this puts the University population at risk of contracting waterborne diseases. The informant argued that without water, hygiene levels at CHAU are compromised because the staff and students are unable to flush their toilets and wash their hands and dishes. Key Informant TM7 added that the lack of water at CHAU where people are closely interacting on a continuous basis increases the risk of diseases caused by bacteria and gems.

Erratic water supply is not exclusive to CHAU. This problem has also been found at other universities. At the University of the South Pacific in Fiji, intermittent water supply interrupted operations at the University. For instance, some toilets were closed off and students were depending on rainwater to bath. As a result, most of the students missed classes (Kotoisuva, 2023).

The foregoing demonstrates that CHAU should put in place measures to improve the supply of water at the University.

5.7.3.3 Indiscriminate sexual relations

Indiscriminate sexual relations were pointed out as a biological hazard at CHAU by Key Informants TM2, TM7, and LM3. Key Informants TM2 and TM7 contended that students at the University engage in a lot of indiscriminate casual sex with fellow students, villagers, and other individuals outside the University because of the unlimited freedom that they enjoy away from their homes. In offering an explanation why students engage in rampant sexual activities, Key Informant LM3 provided two reasons. The first one is financial vulnerability. The second is that most students are at an age where they are sexually active.

Interviews with key informants revealed that indiscriminate sexual relations exposed students to two main risks. The first is STI infection. Key Informant LM3 revealed that a number of male and female students have been diagnosed with STIs such as HIV/AIDS, syphilis, and chlamydia at the Chalimbana Rural Health Centre. Additionally, Key Informant LM3 posited that STIs hamper the performance of students in continuous assessments and examinations. The second is early and unwanted pregnancies. Key Informant LM3 stated that early and unwanted pregnancies expose female students to the risk of maternal death due to immaturity, unpreparedness, and lack of knowledge on how to sustain a pregnancy. Additionally, Key Informant LM3 revealed that some students opt to terminate pregnancies using unsafe methods and this exposes them to the risk of death.

These findings are similar to those of Kassie *et al.* (2019), who found that STIs were rampant among students at the University of Gondar in Ethiopia. Furthermore, similar to the findings in this study, they also found that freedom at university contributed to the risky sexual behaviour exhibited by students. In the same study, unwanted pregnancies were also found to be a consequence of indiscriminate sexual intercourse among students.

The foregoing provides the basis on which the OHS policy for CHAU should develop measures aimed at managing risks associated with indiscriminate sexual relations.

5.7.3.4 Overcrowding in classes

Another biological hazard that was pointed out by the informants of the study is overcrowding in classes. Key Informant TM4 revealed that overcrowding in classes at CHAU is as a result of student over-enrolment, which has been necessitated by the need to raise more finances to supplement the inadequate funding from the government. Key Informant TM3 complained that most classes at the University are too full that some students do not even have anywhere to sit.

Key Informant MM5 stated that overcrowding in classes increases the risk of lecturers and students contracting communicable diseases caused by viruses and fungi because of poor air circulation and reduced air quality in classrooms.

CHAU is not the only public university with the problem of overcrowding in Zambia. UNZA, the country's highest learning institution also has the same problem. In 2023, UNZA was sued in the High Court of Zambia by its own students from the School of Law due to inadequate learning space that caused overcrowding. The Court ruled in favour of the students and ordered the UNZA to secure suitable learning spaces for all the students in the said School.

From the foregoing, the study deduces that the OHS policy should put in place measures to manage overcrowding at CHAU.

5.7.3.5 Stray dogs

Dogs have already been discussed under Section 5.7.1.4 as a type of physical hazard likely to cause injury to members of the University community. Under this section, they are being discussed as a biological hazard.

Interviews with key informants at CHAU revealed that stray dogs are a biological hazard because they are likely to bite members of the University community and potentially infect them with rabies. For example, Key Informant TM4 posited that a bite from an unvaccinated dog can potentially cause serious health problems relating to rabies, which can cause complications if treatment is delayed.

This finding is not exclusive to CHAU as stray dogs have been identified as a biological hazard at other universities as well. In India, an increase in stray dog bites have been reported at public universities. For example, a research scholar at Punjabi University was bitten twice by a stray dog on the university campus on her way to an international conference where she was scheduled to make a presentation. Recognising the risk of diseases posed by stray dogs, university authorities administered her with tetanus and anti-rabies medication (Teja, 2017).

The foregoing provides impetus for the OHS policy for CHAU to establish measures to protect members of the University community from stray dogs.

5.7.3.6 Mosquitoes

Interviews with informants at CHAU revealed that mosquitoes were one of the biological hazards to the health of staff, students, and infant learners. Key Informant TM4 and LM3 pointed out that mosquitoes were rampant at CHAU due to tall grass, thickets, and stagnant water. Consequently, Key Informant LM3 stated that the continued presence of mosquitoes at CHAU poses the risk of

malaria infection to members of the University community. Figure 5.16 below shows a pond of stagnant water at CHAU.



Figure 5-16: A pond of stagnant water at Chalimbana University (Source: Researcher's archive, 2022/2023)

This finding shows that CHAU should develop an OHS policy that takes into consideration the management of mosquito breeding in order to prevent malaria infections at the University.

5.7.4 Ergonomic hazards

Interviews with key informants from CHAU unearthed four ergonomic hazards that are prevalent at the University. These are: lifting heavy loads, prolonged standing, awkward posture, and bright screens. These are discussed below.

5.7.4.1 Lifting heavy loads

Key Informants SR1, LM1, TM4, and TM5 pointed out lifting heavy loads as one of the ergonomic hazards at CHAU. For instance, Key Informant TM5 stated that students at CHAU are exposed to risks associated with lifting heavy loads because they frequently lift desks from one class to another due to insufficient classroom furniture at the University. Correspondingly, Key Informant SR1 echoed the foregoing by stating that the desks ferried by the students are heavy and can

easily strain their spines. Library staff were also found to be exposed to risks associated with carrying heavy loads. For instance, Key Informant LM1 revealed that library staff carry heavy boxes of books whenever they have to shelve new books in the library. Further, Key Informant TM4 stated that mechanics and electricians at the University are also exposed to lifting heavy loads such as tools boxes, ladders, and vehicle parts, which put a strain on their bodies.

Occupational problems associated with lifting heavy loads are common in other universities as well. For example, at the University of North Carolina (UNC), back injury has been identified as one of the major consequences of lifting heavy loads. As a result, the said University has put in place a manual to guide the University community on how to carry and handle heavy loads (UNC, 2016:1-3). Similarly, the University of Newcastle (2009:5) in Australia has identified the lifting of heavy loads as a major cause of back injuries among workers and students.

Therefore, the study infers that the OHS policy for CHAU should put in place measures to protect staff and students from risks associated with lifting heavy loads.

5.7.4.2 Prolonged standing

Prolonged standing was considered one of the ergonomic hazards at CHAU by Key Informants TM2 and MM5. Key Informant TM2 pointed out that most lecturers at CHAU are exposed to prolonged standing because they have a lot of classes to teach due to understaffing and over-enrolment at the University. This certainly takes a toll on their legs and backs. The problem of prolonged standing does not only affect workers, but students as well. For instance, Key Informant MM5 recalled how one student felt dizzy and eventually fainted in class after standing for more than two hours during a practical lesson.

This finding confirms that prolonged standing is a genuine concern to the health and safety of individuals in organisations. For instance, Smith *et al.* (2018) found that prolonged standing was harmful to health. They found that individuals who spent most of their time standing at work were at an increased risk of heart disease.

5.7.4.3 Awkward posture

The informants from CHAU revealed that awkward posture was another ergonomic hazard that was prevalent at the University. Key Informants TM3, MM3, and LM1 mentioned that a number of workers at the University experienced stress to their musculoskeletal structures due to awkward postures owing to inappropriate workstations and working at inappropriate heights. For instance, Key Informant TM3 pointed out that the chairs in the School of Mathematics and Sciences are not comfortable and they expose workers to poor posture, which in turn, triggers pain in their necks and backs. In relation to working at inappropriate heights, Key Informant LM1 retorted that workers

who work at different heights such as librarians complain of backaches because they have to constantly be in an awkward position for a prolonged period of time in order to pack books on top shelves as well as bottom ones.

Awkward posture has been identified as an ergonomical hazard at other universities as well. For example, at the Case Western Reserve University (2023), awkward posturing is one of the ergonomical concerns that have been pointed out. Similar to the findings at CHAU, the Case Western Reserve University identified awkward posturing as a potential cause of back injury and joint stress.

From the foregoing, the study infers that CHAU should establish measures to protect workers from risks associated with awkward posturing.

5.7.4.4 Bright screens

This ergonomic hazard was pointed out by Key Informant MM2 who stated that, in an era where technology has been heavily embedded in teaching, learning, and communication in universities, students and staff spend a lot of time looking at screens of computers and phones. The light emitted by computer and phone screens can be detrimental to the eyes if staff and students spend too much time looking at them. For example, Key Informant MM2 revealed that some workers at the University who work in the Computer Centre usually complain of pain in their eyes.

This finding brings to the fore the much neglected but serious effect of bright screens on workers and students in universities. Additionally, it agrees with the Harvard Health Publishing (2017), which warned that prolonged exposure of the eyes to the bright light from electronic gadgets such as computers and phones can be strenuous to them.

In view of the foregoing, this study posits that the OHS policy for CHAU should develop an OHS policy that provides for the protection of workers and students from the risks posed by bright screens.

5.7.5 Psychosocial hazards

Interviews with key informants from CHAU discovered that there are a number of psychosocial hazards at the University. These include the following: sexual violence and harassment; abnormal workload; long working hours; and alcohol and drug abuse. These are discussed below.

5.7.5.1 Sexual violence and harassment

The findings of the study found that sexual violence and/or harassment was a major source of concern at CHAU. Particularly, it was established that female students were more prone to this

hazard than any other category of the University community. For instance, Key Informant LM3 stated that:

“The girls are vulnerable to sexual violence than the boys. The lack of adequate bed spaces [at the University] has forced many students to rent houses outside campus. Some of the people they rent from are uneducated villagers who believe in polygamy. This exposes our children to sexual violence because they can easily be raped if they are uncooperative. What makes it worse is that the University has no rapport with these boarding house owners making it difficult to hold them accountable.”

Furthermore, the findings of the study show that female students are exposed to sexual violence and/or harassment from male staff members. Key Informant LM3 pointed out that:

“Lecturers have a lot of power over students because they are responsible for setting and marking assessments. This makes it possible for lecturers to get their way with female students who may find it difficult to turn them down for fear of failing.”

In addition to the foregoing, Key Informant LM3 acknowledged that male lecturers also experience sexual harassment from female students who throw themselves at them in an attempt to gain their favour. However, the said Key Informant stated that:

“This is a simpler problem to handle as a lecturer can easily ignore a student without any repercussions.”

Sexual violence and/or harassment is a major hazard in most workplaces. In Sweden, sexual harassment was found to be rampant at Lund University among students and staff (Agardh *et al.*, 2022:12). This shows that CHAU is not the only university whose workers and students are exposed to sexual harassment.

Given the foregoing, this study infers that there is need for CHAU to implement measures that protect all students and members of staff from sexual harassment. This is because, while it is easier to believe that students are the main victims of the said hazard, members of staff also experience it, albeit, to a lesser extent.

5.7.5.2 Abnormal workload

This study found that staff at CHAU were exposed to abnormal workload. The major cause of abnormal workload according to the informants of the study is over-enrolment and understaffing. Key Informant TM2 revealed that the University was understaffed because most of the positions

are yet to be approved by the Council, which had not yet been appointed at the time of the interview. As a result, most staff in the University have a myriad of duties and responsibilities. For example, in addition to teaching and researching, Key Informant MM5 was a head of department as well as a coordinator. Similarly, despite holding a very busy top management position at the University, Key Informant TM2 was also involved in teaching because of inadequate teaching staff. In the same vein, Key Informant TM3 revealed that the School of Mathematics and Sciences only had two laboratory assistants instead of the required four.

In relation to over-enrolment, the study found that, until recently, the University had exponentially increased the number of students admitted in a year. For example, Key Informant TM3 stated that despite the aforementioned understaffing, the University previously had two intakes, September and January, for full-time students and three, April, August, and December, for distance students.

In view of the foregoing, Key Informant TM2 posited that:

“The workers [at CHAU] are physically and mentally stressed because of too much work.”

The said key informant revealed that lecturers have to put up with piles of scripts to mark and numerous classes to teach. The key informant insisted that this kind of stress can lead to burn-out, which can compromise the quality of work done by lecturers. Correspondingly, Key Informant TM3 also pointed out that academic members of staff are very stressed because they do not get enough rest due to too much work involving teaching and marking throughout the year.

This hazard has also been found at other universities in Africa. For example, a study conducted in Nigeria found that most universities in River State were understaffed (Amie-Ogan & Fekarurhobo, 2021:58). Consequently, lecturers experienced constant stress, which resulted in sleep deprivation and reduction in productivity. This finding shows that work overload is a genuine health and safety concern in universities.

The foregoing provides enough impetus for CHAU to develop an OHS policy that provides for the protection of workers from the risks associated with abnormal workload.

5.7.5.3 Long working hours

Key informants from CHAU also mentioned long working hours as a psychosocial hazard affecting workers. This study found that some employees work for more than eight hours in a day. For example, Key Informant LM1 revealed that library workers at the University sometimes, work from 08:00 to 20:00 hours. This concern was echoed by Key Informant ST1 who complained that lecturers at CHAU work long hours because of too much work owing to understaffing and over-enrolment. In the same vein, Key Informant MM2 stated that workers responsible for managing

internet connectivity at the University usually worked long hours due to a number of internet challenges at the University.

Key Informant LM1 revealed that the major consequence of long working hours at CHAU is mental fatigue due to the fact that workers do not get enough rest. Similarly, Key Informant MM2 stated that the University needed to put in place measures to manage long working hours before workers begin having mental breakdowns.

The effects of the long working hours on workers have been well-documented. For example, WHO (2021:38) found that long working hours was one of the leading causes of death among workers globally. This shows that the findings at CHAU, relating to long working hours are a concern globally.

Therefore, the development of an OHS policy for CHAU should consider establishing measures aimed at managing the risks associated with long working hours.

5.7.5.4 Alcohol and drug abuse

At CHAU, the study found that alcohol and drug abuse mostly affected students. Key Informant LM3 contended that most students at the University abused alcohol and drugs due to a number of reasons including, peer pressure, academic and social pressure, and easy accessibility. Key Informant LM3 stated that the alcohol that students abused the most included traditionally brewed beer, which they obtained from nearby villages. In relation to drugs, Key Informant LM3 revealed that students mostly abused marijuana.

Key Informant TM7 revealed that, due to alcohol and drug abuse, some students miss classes and assessments, and some drop out of school completely. Additionally, Key Informant LM3 had the following to say about the effects of alcohol and drug abuse by students:

“Some of the students look like they have lost their minds. Some students who came to this University looking clean and responsible, have now started looking like thugs. Unfortunately, we do not even have a counselling centre where they can be taken for mental health assessment.”

The abuse of alcohol and drugs by students is not a phenomenon peculiar to CHAU. Other universities are also grappling with this hazard. Similar to the findings at CHAU, it was found that university students who abused alcohol in the USA did so because of peer pressure and academic stress (Iconis, 2014). Furthermore, mental health issues and academic challenges were found to be common among university students who abused alcohol.

Thus, CHAU should develop an OHS policy that provides for the management of risks associated with alcohol and drug abuse.

5.8 INFORMANTS VIEWS ON THE NATURE OF ACCIDENTS AND INCIDENTS AT CHALIMBANA UNIVERSITY

In this section, the study sought to identify and discuss the nature of accidents and incidents that have happened at CHAU. This is important to this study because it helps to demonstrate that, like any other workplace, workers at CHAU are victims of occupation accidents and incidents. Additionally, it gives impetus to the aim of this study to develop an OHS policy for CHAU.

To establish the nature of accidents and incidents that are prevalent at CHAU, the researcher asked the key informants from CHAU the following question: *“What is the nature of accidents and incidents that have occurred at CHAU?”* The interviews with key informants from CHAU revealed that there are a number of accidents and incidents that have occurred at the University over the years. The specific accidents and incidents are discussed below.

5.8.1 Cuts and bruises

Interviews with key informants from CHAU revealed that cuts and bruises caused by sharp instruments are among the major accidents and incidences that have occurred at CHAU. These have mostly affected students, infant learners, and members of staff. For example, Key Informant TM5 stated that a number of infant learners at the Early Childhood Education Centre of Excellence have suffered cuts and bruises in the playground due to chipped slides and swings. Additionally, Key Informant TM3 revealed that, in 2022, a male student sustained a cut above the eye after colliding into an overhead fan in one of the laboratories at CHAU.

The findings of this study show that the cuts and bruises experienced at CHAU have not been too serious to require hospitalisation. For example, Key Informant TM5 and MM5 stated that none of the injured infant learners at the Early Childhood Education Centre of Excellence required to be taken to the hospital as they were easily treated using first aid box supplies. Similarly, Key Informant TM3 stated that the cut sustained by aforementioned student who collided into a laboratory fan did not require hospital treatment.

This finding demonstrates that sharp instruments at CHAU have actually caused harm to the members of the University’s community. As such, there is need to put in place guidelines that protect workers, students, and infant learners at CHAU from sustaining cuts and bruises. This is what has been done at other universities where sharp instruments have been identified as a hazard. For example, Durham University (2021:31) has established an OHS policy, which has

adopted national guidelines for safeguarding members of its community from the effects of sharp instruments.

5.8.2 Slips and falls

The responses from the participants from CHAU identified slips and falls as types of accidents and incident that have affected individuals at the University. The findings of this study established that due to wet and inappropriate tiles, some members of staff have either fallen or slipped. For instance, Key Informant TM3 revealed that in January 2023, a female member of staff in the School of Mathematics and Sciences fell and sprained her leg right outside the Dean's Office. This was after the floor became wet due to heavy rains. Correspondingly, Key Informant MM5 fell to the floor on two separate occasions between 2019 and 2022. In the first instance, the said key informant twisted an ankle after missing a step and falling to the floor. This resulted in the key informant wearing an ankle brace for the next six months that followed. In the second instance, Key Informant MM5 fell to the floor after slipping on a wet floor along a corridor at CHAU.

This finding has demonstrated that slippery floors are indeed a danger to the health and safety of workers, students, and other individuals at CHAU. Therefore, this study deduces that it is imperative for CHAU to develop proactive measures that will prevent individuals at the University from avoidable slipping and falling. This will enable CHAU to conform to the minimum standards provided for in the OHS laws such as the Factories Act of 1967 that require all employers to establish measures against slips and falls.

5.8.3 Fire

Through interviews with key informants from CHAU, the findings of this study established that fire has been one of the most concerning accidents at the University. Responses from Key Informants TM3, MM4, TM4, and LM3 revealed that CHAU has experienced some fires in the past. The said key informants pointed out that, although no investigations were carried out to establish the actual causes of the fires at CHAU, some hazards such as laboratory chemicals and negligence in handling cooking appliances were attributed to the infernos. For example, Key Informant TM3 stated that a fire suspected to have been caused by a chemical reaction in one of the laboratories broke out and gutted part of the roof. In Figure 5.17 below, the white part of the roof is a replacement of the gutted roof. Similarly, Key Informant MM4 revealed that another fire broke out in the School of Vocational and Practical Skills after an unknown individual left a cooking pot untended to.

Furthermore, key informants TM4 and LM3 referred to another instance where fire broke out in one of the hostel blocks used for storing mattresses at CHAU. In this incident, some rooms were gutted and most of the mattresses were destroyed in the inferno. Key Informant LM3 revealed

that, while others assumed that the fire was caused by an electrical fault, some believed it was an act of arson and some individuals from the University were summoned by the Ministry of Education. Key Informant TM4 noted that, whatever the cause of the fire was, it exposed the unpreparedness of CHAU in managing fire hazards. This is because the University struggled to put out the fire due to lack of water.



Figure 5-17: Replaced asbestos roof after an inferno in a laboratory at Chalimbana University (Source: Researcher's archive, 2022/2023)

This finding shows that CHAU is susceptible to fires. As such, it can be deduced that the University needs to establish fire prevention and management guidelines just like other universities that are concerned with fire hazards, have done. For example, the Rhodes University in South Africa has established the position of fire marshal to enhance the management of fire hazards at the University (Rhodes University, 2019:8). Similarly, universities in England including the University of Huddersfield (2018:15) and Staffordshire University (2022:17) have established fire prevention and management procedures such as fire evacuation drills, emergency exit signs, and firefighting equipment.

5.8.4 Snake bites

This study established that snake bites are a rare occurrence at CHAU. This is because only one incident was reported. For instance, Key Informant MM5 revealed that only one member of staff has ever been bitten by a snake at CHAU. This happened several years ago after a snake allegedly climbed in an office through the window. Although snake bites maybe rare at CHAU, the fact that it happened shows that the risk of it happening again remains a possibility. Thus, the study infers that CHAU should put in place measures to protect workers and students from risks posed by snakes.

This finding is not unique to CHAU as snake bites have been reported at other universities as well. For example, in Ghana, a student at the Assin Fosu College of Education was bitten by a snake on his testicles while using the bathroom (Kubi, 2022). In view of the foregoing, it is clear that CHAU needs to put in place guidelines aimed at managing the risks posed by snakes to the University community. Other learning institutions such as the Birmingham-Southern College (2003) in the USA have put in place measures to manage risks associated with snakes. These include, identification of poisonous snakes, provision of snake bite kits, and suggestions on possible treatment.

5.8.5 Mental health

Interviews with informants at CHAU revealed that some members of staff at the University claimed to have been having mental health challenges due to work overload. For example, Key Informant ST1 revealed that an academic member of staff reported in confidence to the staff union executive that he was struggling with mental health issues due to excessive workload but did not know where to go for help. The said Informant stated that:

“When the guy came to report to our offices about his mental health issues, many doubted the authenticity of his claims. In order to prove that he was telling the truth, he told us that his behaviour had become so strange that he once found himself putting his shirt in the fridge and the pressing iron in a dish full of water”

In view of the foregoing, CHAU should establish measures to protect members of the University community from mental health concerns.

5.8.6 Sexually transmitted infections

The findings of this study show that STIs appear to be prevalent at CHAU. Key informants LM3 and TM7 posited that, although there are no official records to show the extent to which STIs are prevalent at CHAU, circumstantial evidence suggests that there is a high rate of STI infection at CHAU. For example, Key Informants TM7 revealed that the Chalimbana Rural Health Centre has

raised concern at the number of students who are diagnosed with STIs. This revelation was backed by Key Informant LM3 who revealed that a number of students had consulted the University Matron on how to treat STIs.

This finding has demonstrated that STIs are affecting students at CHAU. As such, this study deduces that the University should put in place measures aimed at alleviating the risks associated with STIs. The foregoing has also been recommended by studies done at universities in relation to sexual health. For example, a study conducted in Brazil in the city of Rio de Janeiro recommended that one of the effective methods for universities to manage risky sexual behaviour is intensification of sexual health training and education activities (de Melo *et al.*, 2022:102).

5.8.7 Malaria

Key informants TM4 and LM3 stated that the risk of malaria at CHAU is very high because the environment is very conducive for mosquitos to breed. Key Informant LM3 stated that while there are no official statistics to show how widespread malaria is at CHAU due to the lack of official records, there have been numerous cases of malaria among staff and students at the University.

In view of the foregoing, it is clear that CHAU should put in place measures to protect the University community from malaria infection.

5.9 CHAPTER SUMMARY

This chapter has identified and discussed the hazards prevalent at CHAU. The chapter is important because it brings to the fore hazards that the OHS policy framework for CHAU should focus on. Additionally, this chapter demonstrates that the challenges at CHAU are similar to those found at other universities. Furthermore, the chapter has identified and discussed the nature and type of accidents and incidents that have occurred at CHAU. As such, it provides justification that CHAU should develop an OHS policy just like other universities have done. The next chapter discusses the current status of OHS management at CHAU. It will identify and explain how the University is managing health and safety in the absence of an OHS policy.

CHAPTER 6 ANALYSIS OF THE CURRENT OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT AT CHALIMBANA UNIVERSITY: EMPIRICAL EVIDENCE

6.1 INTRODUCTION

The foregoing chapter identified and discussed the nature of hazards that are prevalent at CHAU. In addition, it established the nature of accidents and incidents that have had an effect on the health and safety of the university community. Furthermore, the chapter identified workers, students, and infant learners as the categories of individuals who have been affected by occupational hazards at CHAU. The chapter is important to this study because it lays the foundation on which subsequent chapters are anchored. Just like the previous chapter, this chapter addresses the fourth objective of this study, which is to establish the current health and safety profile for CHAU. Specifically, the chapter focuses on reviewing the status of OHS management at CHAU. This is important to the study because it establishes what measures already exist that can be adopted in the University's OHS policy.

This chapter was necessitated by the institutional theory, which argues that the content of policies for institutions is determined by their structure, rules, values, and practices, among others. As such, the section sought to establish the current OHS situation at CHAU with a view of determining how it can be used to guide the development of an OHS policy for CHAU. This section sought to establish how OHS was currently being managed at CHAU. Under Section 3.8 of this thesis, it was established that the design for the OHS policy for CHAU will have three main components, policy statement, organisation of OHS, and arrangements for OHS. As such, it was imperative for the study to obtain empirical data on what is currently obtaining at the University under each of the aforesaid components. However, since the University does not have an OHS policy, information relating to the policy statement was non-existent. Therefore, this chapter begins with a review of empirical data relevant to the second component, organisation of OHS. This will be followed by a review of empirical data relevant to the third component, arrangements for OHS. The chapter is important because it enabled the researcher to establish how OHS responsibilities were currently distributed at CHAU and what OHS measures were in use at the University. This information was relevant in determining the appropriate OHS policy for CHAU. It was also relevant in enabling the study to establish the University's OHS profile, which was important for developing the first-ever OHS policy for CHAU.

The chapter is divided into the following sections: introduction; informants' views on the current organisation of OHS responsibilities at CHAU; and chapter summary.

6.2 INFORMANTS' VIEWS ON THE CURRENT ORGANISATION OF OCCUPATIONAL HEALTH AND SAFETY RESPONSIBILITIES AT CHALIMBANA UNIVERSITY

Given that the OHS policy for CHAU should determine how OHS responsibilities at the University should be distributed, the study sought to establish the existing structure for managing OHS at CHAU. This was important as it enabled the study to determine how the existing organisational structure should be used to distribute OHS responsibilities at CHAU. This is in line with the assumption of the institutional theory that the content of institutional policies is determined by their existing structures. One of the key aspects of OHS management in an organisation is the allocation of health and safety responsibilities to individuals. As such, the study sought to establish what health and safety responsibilities have currently been allocated to individuals at CHAU. To establish the foregoing, the researcher asked the key informants from CHAU the following question: *What health and safety responsibilities are currently performed by different individuals and office holders at CHAU?* The interviews with key informants from CHAU revealed that a number of office holders and individuals had performed some OHS functions, albeit on an irregular basis. Thus, the allocation of OHS responsibilities at CHAU is discussed below.

6.2.1 Vice-Chancellor

Key Informants TM2, TM4, TM7, ST1, LM1, and MM5 pointed out that the VC at CHAU had performed the following health and safety responsibilities:

Mobilising OHS funds: Interviews with key informants from the University revealed that the VC had mobilised funds for activities related to OHS. However, it was established that this responsibility was not performed proactively. Rather, it was only performed when there was a crisis. For example, Key Informant TM2 revealed that one of the few times the VC's office actively mobilised funds for OHS was during the COVID-19 pandemic when the University needed to buy face masks, hand sanitisers, thermometers, and hand washing soap and basins. The other time was after a fire had destroyed property and the University needed to buy fire extinguishers. Key Informant TM2 attributed the reactive performance of the said OHS responsibility by the VC to the fact that CHAU had not officially and formally allocated OHS responsibilities to office holders and individuals at the University. The foregoing does not conform to best practices, which require CEOs of universities to ensure that adequate finances specifically meant for OHS are provided proactively (see University of Wollongong, 2020; Curtin University, 2021). This situation brings to the fore one of the challenges of not having an OHS policy in place. It shows that, without an OHS policy, the management of a university may struggle to act proactively to manage hazards (Kwame Nkrumah University of Science and Technology, 2018:1). In view of the preceding, it is clear that CHAU needs an OHS policy that will enable the institution to incorporate a responsibility

that requires the VC to proactively and consistently allocate funds specifically meant for OHS (see University of Wollongong, 2020; Curtin University, 2021).

Setting up OHS committees: This study also found that the VC at CHAU had set up a committee to perform OHS functions. Key Informant TM4 retorted that during the COVID-19 pandemic, the VC constituted the COVID-19 Task Force to coordinate the implementation and evaluation of preventive and protective measures. In Zambia, setting up an OHS committee is critical to the management of health and safety in an organisation because it enables employers, workers, and other stakeholders to collaborate in managing hazards in accordance with the OHS laws such as the Occupational Health and Safety Act of 2010. However, Key Informant TM4 revealed that the said Task Force was temporal as it became dysfunctional once the government lifted the COVID – 19 restrictions. This shows that the VC only performed this responsibility when there was a crisis situation. This is not analogous to best practices obtaining at other universities with OHS policies where the CEO is tasked with the responsibility of creating permanent OHS committees. For example, at universities in Canada, such as University of Toronto (2022) and the University of Calgary (2022), the Presidents and VCs are tasked with the responsibility to form permanent OHS committees. Furthermore, due to the lack of a policy to officially allocate the VC the responsibility to create health and safety committees, CHAU is not in conformity with the Occupational Health and Safety Act of 2010, which requires all employers in Zambia with ten or more workers to set up a joint OHS committee. Therefore, this study infers that CHAU should develop an OHS policy that will standardise the responsibility of the VC to create permanent OHS committees.

Establishing relationships with external partners: The findings of this study revealed that the VC at CHAU was responsible for establishing partnerships aimed at enhancing the management of OHS at the University. For example, Key Informant TM2 revealed that the VC had signed a memorandum of understanding (MoU) between CHAU and the United Nations Educational, Scientific and Cultural Organisation (UNESCO), to provide sexual health services to students at the University. This responsibility is important because it ensures that the University benefits from the expertise and resources of other stakeholders as is the case at universities with OHS policies (see Carleton University, 2021; Capilano University, 2021; University of Victoria, 2021; Brock University, 2022; MacEwan University, 2017; University of Toronto, 2022). However, Key Informant TM4 unearthed the fact that the said partnership was initiated by UNESCO and not CHAU. This shows that the VC did not proactively look for partnerships to improve OHS management at CHAU. Furthermore, it shows that, the VC only performed this responsibility because he is the one who is obligated to sign MoUs between the University and other organisations. The foregoing demonstrates the cons of CHAU not having an OHS policy to officially allot health and safety responsibilities to the VC. As such, it can be deduced that the VC did not perform this responsibility effectively. Consequently, it is clear that CHAU requires an OHS

policy that can assign the VC the responsibility to proactively establish partnerships with organisations that can help the University enhance its OHS management.

Allocating OHS responsibilities: Key Informant TM7 pointed out that the VC had allocated OHS responsibilities to officers at the University. This is important as it ensures that everyone in the University knows exactly what is expected of them with regard to OHS (ILO, 2009a:7; Hughes & Ferrett, 2016:55; CCOHS, 2021). Unfortunately, the findings of this study revealed that the VC at CHAU only allocated temporal OHS responsibilities, instead of permanent ones as recommended by best practices (see Hughes & Ferrett, 2016:55; CCOHS, 2021). For example, Key Informant TM7 stated that during the COVID-19 period, the VC allocated roles to officers and individuals in the University. However, these were only temporal as they ended immediately the COVID-19 restrictions were relaxed by the government. The foregoing does not conform to standard practices that have been established at universities with OHS policies. For example, universities in the UK have assigned the VC with the responsibility of allocating long standing OHS responsibilities to officers and individuals (see University of Huddersfield, 2018:3; Durham University, 2021:10-12). Key Informant LM1 concretised the foregoing concern by stating that:

“The problem is that we do not have specific health and safety responsibilities to guide our actions. Most of the time we rely on our common sense to protect ourselves.”

This finding shows that in the absence of an OHS policy, the VC at CHAU has been unable to effectively allocate OHS responsibilities to various levels of the organisation on a continuous basis as is obtaining at universities with established OHS policies (see University of Huddersfield, 2018:3; Durham University, 2021:10-12). In view of the foregoing, it is clear that CHAU requires an OHS policy.

Monitoring OHS performance: The findings of the study discovered that the VC at CHAU had been responsible for the overall monitoring of OHS performance at the University. As Key Informant MM5 retorted, the VC held regular meetings with the COVID-19 Task Force to establish the performance of the COVID-19 measures at the University. To confirm the foregoing, Key Informant TM2 explained that:

“At the peak of the COVID-19 [pandemic], the VC would call for meetings with the COVID-19 Task Force on a regular basis to get reports on whether the University’s measures were successful or not.”

However, the findings of this study discovered that this responsibility was rarely performed. In fact, it was only performed during the COVID-19 pandemic. This was aptly expressed by Key Informant ST1 who contended that the regular meetings to review OHS performance at CHAU

were only held at the height of the COVID-19 pandemic. Key Informant TM3 echoed the foregoing by stating that once the COVID-19 pandemic lessened, the VC abandoned his responsibility to monitor OHS performance at the University. The foregoing demonstrates that the VC at CHAU did not effectively perform the responsibility of monitoring OHS performance at the University. This means that the VC was not proactively performing the said responsibility as is the case in universities with OHS policies. For example, VCs at the University of Huddersfield (2018:3), Durham University (2021:10-12), the University of Essex (2021:11-12) Staffordshire University (2022:3-4), and the University of Cambridge (2022:17) continuously monitor OHS performance at their universities because they are required to do so by their OHS policies. Considering the preceding information, it is clear that CHAU requires an OHS policy.

6.2.2 Deputy Vice-Chancellors

In line with the requirements provided by the Higher Education (Amendment) Act of 2021, CHAU has two DVCs who report to the VC. One is responsible for administration and academic affairs, and the other is responsible for research and innovation (CHAU, n.d.). Interviews with key informants of the study revealed that, with regard to OHS, the two DVCs play a supporting role to the VC. For instance, key informants TM4 and TM7 stated that the DVCs at CHAU perform whatever OHS responsibilities are assigned to them by the VC in relation to OHS. This means that they do not necessarily have specific OHS responsibilities. This finding is not unique to CHAU. In the OHS policy for the University of Huddersfield (2022:3), the DVC has been tasked to perform the VCs health and safety responsibilities whenever the latter is away from the office for whatever reason. This study deduces that, as prescribed by the Higher Education (Amendment) Act of 2021, the proposed OHS policy for CHAU should align with the aforesaid Act by indicating that the two DVCs should act in place of the VC when he/she is away from the office.

6.2.3 Registrar's office

The responses of the informants at CHAU unearthed the OHS responsibilities that the Registrar was performing at the University. Key Informants TM3, TM4, LM4, MM1, and MM2 insisted that the responsibility to improve OHS at CHAU rested on the Registrar who reported directly to the VC. The foregoing revelation is in line with the Higher Education Act of 2013 as amended in 2021, which places all employee relations matters under the Registrar's office. Specifically, the interviews with the key informants of the study revealed the following as the Registrar's OHS responsibilities:

Communicating to the university community: The findings of this study found that the communication of health and safety information at CHAU was done through the Registrar's office. Communication on OHS matters to members of an organisation by management is highly recommended by best practices because it ensures that everyone is well informed about what is

obtaining (see ILO, 2009a:6-7; ISO, 2018:9-11). Nonetheless, the findings of this research revealed that the Registrar at CHAU did not perform this responsibility on a continuous basis. Rather, it was only performed during times of crises. For instance, Key Informant TM4 stated that during the COVID-19 pandemic, the Registrar's office communicated frequently to the university community about changes in work schedules and implementation of new measures. However, Key Informant TM3 stated that the said communication instantly ended when the government lifted COVID-19 restrictions.

In view of the foregoing, this study deduces that the Registrar at CHAU did not effectively perform the said OHS responsibility because of the absence of an OHS policy. This is because, in organisations where an OHS policy has been established, top level managers equivalent to the Registrar consistently provide relevant OHS information to workers and other stakeholders, even when there is no emergency or crisis situation (see ILO, 2009a:9; ISO, 2018:15-17). In view of the foregoing, this study maintains that CHAU should develop an OHS policy to formally allocate OHS responsibilities to the Registrar and other office holders and individuals.

Provision of PPEs: Key Informants TM3, TM4, and LM4 informed the researcher that the provision of PPEs at CHAU is managed and coordinated by the Registrar's office. The provision of PPEs is necessary to protect workers from hazards that cannot be eliminated (NIOSH, 2022). However, the findings of this study established that the Registrar's office does not perform this responsibility proactively. This was demonstrated by the lack of readily available PPEs in the University. For instance, Key Informant LM4 revealed that every unit in the University that needs supply of PPEs must put in a request to the Registrar's office. Unfortunately, the supply of PPEs such as safety boots, hard hats, and work suits may take weeks, and sometimes, months because they are not bought in advance. As a result, there are times when workers have worked without PPEs.

The foregoing deviates from the best practices that have been adopted at universities with established OHS policies which recommend the provision of PPEs proactively. For example, top level managers equivalent to the position of Registrar at universities in Australia are tasked with the responsibility of proactively providing PPEs (see University of Wollongong, 2020; Curtin University, 2021; University of Canberra, 2021; University of Melbourne, 2021; University of Southern Queensland, 2021). Taking the preceding into account, this study attributes failure by the Registrar's office to acquire PPEs proactively to the lack of an OHS policy. As such, it is apparently clear that CHAU should develop an OHS policy. This will help to allocate responsibilities to key positions and enable the University to enhance its OHS management.

Organising OHS training: According to Key Informant TM4, the Registrar is responsible for organising OHS training at CHAU. Additionally, Key Informant TM2 explained that there are a few training programmes that have been organised by the Registrar's office such as sexual

awareness training. Training members of an organisation on OHS is critical to the management of hazards and risks because it equips them with relevant and up-to-date information on how to conduct themselves at the workplace (see ILO, 2009a:8). The foregoing notwithstanding, this study uncovered that the Registrar's office seldomly organised OHS training programmes at the University. For example, Key Informant MM1 stated that they had difficulties recalling any OHS training programme that was organised by the Registrar's office. Additionally, Key Informant MM2 revealed that, despite the fires that have affected CHAU in the past, the Registrar's office has never organised a training on how to use the fire extinguishers that have been installed around the University. In view of the foregoing, it can be argued that the Registrar at CHAU has not proactively planned for OHS training programmes as recommended by best practices in OHS. For example, the ILO (2009a:8) and ISO (2018:15) posit that to enhance OHS management in an organisation, health and safety training programmes should be scheduled regularly. Therefore, the need for an OHS policy for CHAU cannot be overemphasised.

Preparing OHS performance reports: Reporting on OHS performance in an organisation is very important to the enhancement of health and safety management. This is because it promotes continual improvement in the prevention of hazards and risks (OSHA, 2013:3). This is why universities with an established OHS policy have allocated this responsibility to top level managers. For example, the University of Hong Kong (2019) tasked senior managers with the responsibility of providing regular OHS performance reports to the University's CEO. Interviews with key informants at CHAU revealed that the responsibility to provide regular OHS performance reports at CHAU rested on the Registrar's office. However, Key Informant TM4 revealed that the Registrar only performed the said responsibility during the COVID-19 pandemic. In addition, Key Informant TM4 could not recall any other time that performance reports on OHS were produced by the Registrar's office. In view of the foregoing, it can be deduced that the Registrar at CHAU seldomly reported on the overall performance of OHS at the University. This situation means CHAU is not in conformity with the best practices prevailing in universities with OHS policies. For example, as earlier indicated, the University of Hong Kong (2019) has embedded this responsibility in its OHS policy. Therefore, this study infers that CHAU needs an OHS policy to enable the Registrar to consistently and proactively perform this responsibility.

Organising transport arrangements: The findings of this study revealed that CHAU does not have a transport officer. As such, the responsibility to manage the transportation of staff and students for official university duties lies in the Registrar's office. For example, LM4, MM6, TM4, and TM7 indicated that whenever staff and students were travelling for official duties, the Registrar's office was responsible for organising vehicles and drivers to ferry them. Key Informant TM2 added that the Registrar's office was responsible for preparing transportation schedules and servicing vehicles.

This responsibility is also being performed at the Chinese University of Hong Kong (2014:3). As such, it should be included in the OHS policy for CHAU.

Provision of fire extinguishers and first aid kits: Key informants from CHAU unveiled that the responsibility to provide fire extinguishers and first aid kits lies with the Registrar. For instance, Key Informant TM4 stated that:

“When you take a walk around the University, you will find a fire extinguisher in almost every office. That project was done by the office of the Registrar. Also, all the first aid boxes that you will find in this University were provided through the Registrar’s office.”

For a university that has experienced a number of fires as discussed under Section 5.8.3, the provision of fire extinguishers is critical because it ensures that the University has mechanisms to quench fires before they get out of control. Furthermore, considering that there have been some injuries that have happened at CHAU as discussed under sections 5.8.1 and 5.8.2, the provision of first aid kits is a necessity. This is because, readily available first aid supplies ensure that victims of accidents are treated on sight before being ferried to the hospital, among others. However, interviews with key informants from CHAU revealed that the Registrar’s office did not proactively and effectively perform the said responsibility. For example, Key Informant MM1 pointed out that the fire extinguishers at CHAU were only installed after the University had suffered a series of fires. Conversely, the Key Informant ST1 stated that, even though the fire extinguishers had been installed at the University, no training had been undertaken to teach members of the university community how to use them. Furthermore, Key Informant TM3 revealed that the Registrar’s office took too long to provide first aid boxes. For example, at the time of the research, the School of Mathematics and Sciences was still waiting for a first aid box that they had requested from the Registrar’s office over six months ago.

The foregoing demonstrates that the Registrar’s office has not effectively performed this responsibility. This is because there appears to be a lack of proactiveness in their performance of OHS functions. Thus, this study contends that CHAU needs an OHS policy to incorporate proactiveness in the performance of OHS duties and responsibilities at various levels of the institution as is the case at Kwame Nkrumah University of Science and Technology (2018:1) in Ghana.

6.2.4 Top level managers

At CHAU, these include, but are not limited to, Chief Librarian, Dean of Students, Deans of School, and Directors of Institutes. These report directly to the VC. Interviews with key informants revealed that, generally, top level managers are responsible for the implementation of OHS measures and

monitoring health and safety performance in schools, directorates, and units that they are superintending. Their specific functions are as follows:

Providing OHS leadership: Key Informants TM1 and TM3 revealed that top level managers have the responsibility to demonstrate leadership on the people they preside over. Key Informant TM1 stated that the foregoing is important because it sets the tone for how everyone under her supervision will conduct themselves. She stated:

“I have to lead by example so that everyone below me takes health and safety seriously. When they see me doing the right thing, they will follow suit.”

However, other top level managers revealed that the said responsibility was difficult to perform because there were no formal guidelines in place. For example, Key Informant TM3 explained that, by virtue of being a leader in the School, he was expected to provide leadership in all aspects. However, with regard to OHS, he was unsure as to whether or not he was providing the right leadership because the University had no health and safety guidelines. To put the foregoing into perspective, Key Informant MM3 revealed that Deans rarely engaged in discussions on health and safety as they did not know what was expected of them. The foregoing demonstrates that although top level managers at CHAU provided leadership to their subordinates, they were unsure about what to do because of the lack of guidelines. This shows that CHAU is not in conformity with best practices at universities that have established OHS policies. For example, OHS policies at Canadian universities have provided guidelines that top managers can use to provide leadership to their subordinates (see Brock University, 2022; MacEwan University, 2017; University of Toronto, 2022; University of Calgary, 2022). In view of the foregoing, it is clear that CHAU requires an OHS policy.

Providing PPEs: The responses of the informants at CHAU revealed that top level managers were also responsible for ensuring that everyone under their supervision is provided with adequate and appropriate PPEs. For instance, Key Informant TM5, acknowledged that:

“During Covid, it was my responsibility to provide adequate PPEs to all staff in my school. I had to make sure that I requested enough PPEs from the Registrar for workers in all the departments under the school.”

Correspondingly, Key Informant TM3 stated that, during the COVID-19 pandemic, his office was responsible for distributing masks to all departments under his school. Although the top level managers stated that they had the responsibility to provide PPEs, this study unveiled that challenges had characterised the performance of this responsibility. For example, Key Informant TM5 lamented that his School had requested for house shoes for students to wear while cooking, but they were never delivered. Although this can be attributed to financial challenges at the

University, it can also be attributed to the University not prioritising OHS due to the lack of an OHS policy. For example, Key Informant ST1 indicated that the University had no problem spending money on endless workshops, but always claimed not to have sufficient funds to buy PPEs for workers and students. This finding shows that top level managers at CHAU are unable to effectively provide PPEs because of the lack of an OHS policy, among others. In view of the foregoing, this study deduces that CHAU should develop an OHS policy that will officially allocate top level managers the responsibility to provide PPEs to their subordinates. This will enable CHAU to replicate the best practices obtaining at universities in Australia (see University of Wollongong, 2020; Curtin University, 2021; University of Canberra, 2021).

Communicating OHS information: The findings of this study show that the other responsibility for top level managers at CHAU is informing their supervisees of all relevant information concerning OHS, including measures and guidelines. This is necessary as it ensures that everyone is adequately informed about changes and developments relating to OHS. For example, Key Informant TM5, stated that, during the COVID-19 pandemic, top level managers were responsible for informing HODs and managers about any latest information pertaining to COVID-19 guidelines. Key Informant TM1 echoed the foregoing when she indicated that it was her responsibility to provide all relevant information to her subordinates. She stated that:

“When the VC or Registrar writes a memo, it comes to my office first. It is then my responsibility to inform those below me. If I do not, then they stay uninformed, and this is not progressive at all.”

The foregoing notwithstanding, the findings of this study disclosed that this responsibility was only vividly performed during the COVID-19 pandemic. For example, Key Informant TM3 pointed out that, during the pandemic, there was a lot of communication between the Dean’s office and HOD’s in the schools. However, he stated that the situation changed after the pandemic. The foregoing shows that this responsibility was not performed on a continuous basis at the University as is the case in universities with OHS policies. For instance, at universities in the UK, Deans and Directors are tasked with the responsibility of providing adequate and accurate information to their subordinates on a continuous basis (see Aston University, 2021:6-8; University of Essex, 2021:11-14; University of Cambridge, 2022:16). Consequently, this study infers that CHAU needs an OHS policy to enable the University to conform to best practices and legal requirements.

Reporting to the VC: This study found that top level managers at CHAU frequently provided reports to the VC during the COVID-19 pandemic. This was revealed by Key Informant TM2 who stated that, during the COVID-19 pandemic, the VC scheduled regular meetings at which top level managers were required to provide progress reports. However, the findings of this study show that this responsibility was only performed consistently during the said pandemic. For example,

Key Informant TM7 posited that with the exception of the COVID-19 period, top level managers seldomly reported to the VC on matters relating to OHS. In view of the foregoing, this study deduces that, in order for top level managers at CHAU to effectively assume the responsibility of reporting regularly to the VC on matters relating to OHS in their units, the University should develop an OHS policy. This will enable the University to conform to best practices in the management of OHS at a university. For example, the Chinese University of Hong Kong (2014:1-2) has tasked Deans and Directors to report accidents and incidents in their units to the VC on a regular basis.

Securing finances: Whereas the VC is responsible for securing finances for OHS activities for the entire university as discussed under Section 6.2.1 above, the findings of the study established that top level managers at the University are responsible for securing funds for OHS management in the units they are overseeing. However, Key Informant TM5 unveiled that top managers at CHAU struggle to mobilise adequate finances for health and safety activities in their units. Key Informant TM2 attributed the foregoing to the lack of OHS planning for the University. He stated that the University does not have separate funds reserved for OHS. As such, any finances spent on OHS have to be diverted from management functions. This partly explains why CHAU is reactive in its approach to OHS management.

Given the foregoing, this study maintains that if CHAU had an OHS policy, the University would be able to reserve funds specifically for OHS. This would, in turn, enable executive managers to easily acquire funds from university coffers to be used for health and safety management in their units. From the preceding, it is clear that CHAU needs an OHS policy that can allocate top level managers the responsibility to secure OHS funds as is the case at the University of Canberra (2021) in Australia.

Monitoring adherence: Interviews with key informants from CHAU revealed that at the height of the COVID-19 pandemic, top managers were instrumental in monitoring adherence to OHS measures at CHAU. For example, Key Informant TM1 stated that as the head of her unit, the onus to ensure that all staff and students under her were adhering to COVID-19 regulations rested on her. Similarly, Key Informant TM3 indicated that he was responsible for ensuring that COVID-19 regulations were adhered to by everyone in his school. However, this study uncovered that this responsibility was only performed during the COVID-19 pandemic. For instance, Key Informant TM3 observed that it was easier to monitor adherence to COVID-19 regulations because the University had implemented guidelines, which were provided by the government. In addition, Key Informant TM3 pointed that, although his school had laboratory guidelines, there was no systematic effort to monitor adherence among students. He stated that at best, students were oriented on how to conduct themselves in the laboratory at the beginning of the academic year. This finding shows that top level managers did not effectively monitor adherence in their units and

that the University needs an OHS policy that can officially and formally allocate top level managers the responsibility to monitor adherence as is the case at the Chinese University of Hong Kong (2014:3). This will promote continual improvement of OHS management at CHAU.

6.2.5 Health and safety committee

Key Informants ST1, TM1, TM2, TM3, TM4, TM5, TM6, TM7, MM1, MM2, MM3, MM4, LM1, LM2, LM3, LM4, and LM5 all indicated that CHAU did not have an OHS committee. Key Informant ST1 added:

“If CHAU had a committee on OHS, I would have known because the union would have had representation on it.”

The key informants revealed that during the COVID-19 pandemic, the VC had established a committee called the COVID-19 Task Force, which reported to the VC. The said Task Force constituted fifteen members *“comprising of health personnel, police, lecturers, support staff and the president of the student body to spearhead all COVID-19 activities in the University”* (CHAU, 2021:2). In 2022, the COVID-19 Task Force report was published, and it aptly indicated the responsibilities of the committee. Although the COVID-19 Task Force was no longer in existence, the researcher sought to find out its responsibilities. This was important because it enabled the study to understand the nature of OHS responsibilities that had been performed in the past by a committee at the University. After a review of the COVID-19 Task Force report, the study established that, generally, the Task Force had the following responsibilities:

Adherence to OHS guidelines: The COVID-19 Task Force was responsible for ensuring that all members of staff, students, and visitors adhere to the COVID-19 regulations. This involved ensuring that social distance was maintained in classes and offices and that masks were worn at all times in public (CHAU, 2021:4). This responsibility for an OHS committee is important as it enhances OHS management in an organisation. Furthermore, this responsibility has been found at Kwame Nkrumah University of Science and Technology (2018:8) in Ghana as well as at the University of New South Wales (2023:2) in Australia. In view of the foregoing, this study deduces that this responsibility of an OHS committee should be included in the OHS policy for CHAU. Although this responsibility was critical, it was only performed during the COVID-19 pandemic. This goes against the health and safety laws in Zambia. For example, the Occupational Health and Safety Act of 2010 requires that all employers with ten or more workers must establish a long standing joint OHS committee. Therefore, it is clear that CHAU requires an OHS policy.

Orientation of new students: The COVID-19 Task Force Committee was also responsible for orienting new students on COVID-19 guidelines (CHAU, 2021:4). This responsibility was important because it ensured that all the students were well-informed about what was expected

of them. This is similar to what OHS committees at universities in Australia performed (see Federation University, 2022:10). As such, it is imperative for this OHS committee responsibility to be included in the proposed OHS policy for CHAU. The foregoing notwithstanding, this function was only ever performed during the COVID-19 pandemic. This is because the Task Force only existed during the pandemic. As such, this shows that CHAU needs an OHS policy, which can provide for the creation of an OHS committee to perform related responsibilities on a continuous basis.

Organising Covid-19 vaccination: This study established that the Covid-19 Task Force was assigned the responsibility to organise COVID-19 vaccination exercises at CHAU (CHAU, 2021:4). This responsibility was aimed at enhancing the management of OHS at the University. It is analogous to the responsibilities of OHS committees at the Federation University (2022:10) and the University of South Wales (2023:2). Consequently, it is obvious that the proposed OHS policy for CHAU should include this responsibility. Unfortunately, this responsibility was also only performed during the COVID-19 pandemic. Thus, CHAU needs an OHS policy to establish permanent OHS committee as is required by the Occupational Health and Safety Act of 2010.

6.2.6 Middle level managers

This category of officers at CHAU includes HODs and managers of units and they report to the top level managers whose responsibilities have already been discussed under Section 6.2.4 above. This study found these officers performed some OHS functions at the University. However, as is the case with the preceding officers, there were challenges associated with the responsibilities performed by HODs and managers. Interviews with key informants revealed that the OHS responsibilities of middle level managers at the University included the following:

Communicating OHS information: The responses of key informants during interviews unveiled that, like their supervisors, the middle level managers were responsible for providing OHS information to their supervisees. Key Informant MM1 explained that:

“During COVID-19 pandemic, whenever I would receive information from the Dean’s office, I would instantly inform my members of staff.”

Just like their supervisors, this study found that the middle level managers did not effectively perform this function. First, key informants MM1, MM2, MM3, MM4, and MM6 unveiled that they only continuously performed this function during the COVID-19 pandemic. Second, they noted that there was no much OHS information shared with staff and students before and after Covid-19 pandemic. This demonstrates that CHAU falls short of best practices obtaining in universities where OHS policies have tasked middle level managers with the responsibility of communicating OHS information to their subordinates (see Aston University, 2021:8; University of Essex,

2021:11-14). As such, it is clear that CHAU needs an OHS policy to allocate OHS responsibilities at all levels of the University.

Monitoring adherence to OHS guidelines: The findings of this study established that middle level managers were responsible for monitoring adherence to OHS guidelines in their departments and units. For example, key informants MM1, MM3, MM4, and MM5 both acknowledged that, during the COVID-19 pandemic, it was their responsibility to ensure that staff and students in their departments were strictly following the guidelines that were established to prevent the spread of the COVID-19 virus. However, key informants MM1, MM3, and MM5 retorted that they never performed the said function before the Covid-19 pandemic. Key Informant MM3 pointed out that:

“Lecturers and students in my Department deal with a lot of hazardous equipment and chemicals, but we do not have guidelines on how to work safely. Because of this, it is difficult for me to monitor adherence. What adherence will I be monitoring when there are no guidelines to follow?”

The preceding shows that in the absence of OHS guidelines, middle level managers failed to effectively perform this responsibility. As such, it is clear that CHAU is below the required standard in OHS management. Therefore, it can be deduced that there is need for an OHS policy at CHAU like at other universities. For example, OHS policies at Binghamton University (2021), Oregon State University (2021), and Utah State University (2022) have assigned middle level managers the responsibility to monitor adherence among staff and students in their units.

Managing fire extinguishers and first aid boxes: Interviews with key informants MM1, MM2, MM3, MM4, MM5, and MM6, revealed that middle level managers at CHAU were responsible for ensuring that all fire extinguishers and first aid boxes in their units were functional at all times. However, the responses from the participants revealed that managers at this level were ineffective in performing this responsibility. For example, an interview with Key Informant TM3 revealed that in the School of Mathematics and Sciences, a first aid box was found empty when staff in the School attempted to treat a member of staff who had suffered an injury after slipping and falling. This shows that, in the absence of an OHS policy, middle level managers had no official responsibilities requiring them to verify the functionality of fire extinguishers and first aid boxes in their units. In view of the foregoing, it is clear that CHAU needs an OHS policy.

Reporting OHS information to top level managers: Interviews with key informants TM3, MM1, MM3, MM5, and MM6 revealed that middle level managers were responsible for providing OHS information to their supervisors. However, key informants MM1, MM3, MM6 unveiled that before and after the COVID-19 pandemic, there was not much that was done in relation to this responsibility. Additionally, Key Informant MM1 stated that during the COVID-19 pandemic, everyone in the University was expected to perform some OHS-related functions in line with the

preventive and protective measures that were imposed on all organisations by the government. He suggested that, before and after the pandemic, the requirement for middle level managers to provide regular OHS-related reports to top level managers was almost non-existent. This finding is consistent with what was obtaining at top management level where OHS responsibilities were only consistently performed during the COVID-19 pandemic. This illustrates how important it is for CHAU to develop an OHS policy. Developing the said policy will enable the University to allocate specific OHS responsibilities to its middle level managers as is the case at the Oregon State University (2021) and the Utah State University (2022) in the USA.

6.2.7 University caretaker

Interviews with key informants at CHAU revealed that the University Caretaker performed responsibilities that were strongly linked to OHS. His responsibilities are similar to those of the estates management officer at the Chinese University of Hong Kong (2014:3) and the University of Hong Kong (2019). Key informants TM2, TM4, TM7, MM6, and LM4 stated that the primary responsibilities of the University Caretaker were repairing and maintaining all infrastructure at CHAU. For example, key informants LM4 and MM6 stated that the Caretaker is responsible for repairing and maintaining electrical systems and facilities, water supply and sewer systems, and university buildings. Essentially, they stated that the job of the University Caretaker is to make sure that the University and all its facilities promote a healthy and safety teaching, researching, and learning environment. This responsibility is also present at universities in the UK such as the University of Huddersfield (2018:4) and Staffordshire University (2022:7). However, Key Informant TM2 stated that like other officers at CHAU, the Caretaker has no official guidelines linking his work OHS management at the University. In view of the foregoing, it is clear that this position and its responsibilities should be included in the OHS policy for CHAU.

6.2.8 University matron

Key informants TM2, TM4, TM7, LM3, and LM4 indicated that the responsibilities performed by the University Matron are strongly linked to OHS management among students. These involve sensitising students on sexual health, providing counselling services to students, taking students with serious ailments to the clinic, and inspecting and monitoring hygiene levels in students' hostels. Key Informant LM3 explained her OHS responsibilities as follows:

"I also provide counselling to students who are experiencing difficulties such as pregnancies, STIs, and abuse from fellow students. I am on call everyday all day. Every student at CHAU has my number. When they are sick at any time of the day, the call me and I come to attend to them. If I determine that their situation requires them to go to the clinic, I arrange transport for them to be taken to the clinic at any time of the day. At night, there are drivers who are on call that I work with. These

are the ones who help me transport the students to the clinic. I also conduct quarterly training on hygiene and sexual health to all the students.”

This position is similar to the health officer at the Chinese University of Hong Kong (2014:3) and University of Hong Kong (2019). In view of the foregoing, this position and its responsibilities should be retained in the OHS policy for CHAU.

6.2.9 Staff

There are generally two types of staff at CHAU. These are academic and non-academic members of staff. Interviews with key informants from the University found that staff generally performed the following OHS responsibilities:

Adherence to OHS regulations: Key informants TM2, TM3, TM4, TM5, TM6, TM7, TM8, MM1, MM2, MM3, MM4, MM5, LM1, LM2, LM3, LM4, and ST1 stated that all staff at the University have the responsibility of adhering to all the OHS regulations implemented by the University management. For example, key informants MM1, TM4, TM7, and ST1 recalled that during the COVID-19 pandemic, all workers had the responsibility of religiously following the preventive measures such as social distancing, masking up, and sanitising, among others. This finding is similar to what obtained at universities with OHS policies. For example, workers at UAEU (2015:1) have a responsibility to strictly adhere to all health and safety regulations. This is also the case at Kwame Nkrumah University of Science and Technology (2018:6-7) in Ghana, at the Rhodes University (2019:6) and UCT (2020:1) in South Africa. The preceding shows that this responsibility must be adopted in the proposed OHS policy framework for CHAU.

However, Key Informant TM3 and ST1 indicated that the only OHS regulations that workers at the University were formally required to adhere to were the COVID-19 regulations. In addition, Key Informant TM3 stated that, even though his departments had laboratory safety guidelines, they were generally meant for students and not workers. He stated that the laboratory rules that are stuck in the laboratories are meant for students and not the lecturers. The foregoing shows that staff members at CHAU do not have any guidelines to adhere to now that the COVID-19 regulations have been relaxed and almost done away with at the University. Considering the foregoing, it is evident that CHAU needs an OHS policy.

Informing students about OHS guidelines: Key Informants ST1, ST2, ST3, TM2, TM3, TM7, MM1, MM3, and MM5 indicated that staff at CHAU have the responsibility of informing students about all relevant OHS information. For instance, Key Informant MM5 stated that during the COVID-19 pandemic, all staff in his department had the responsibility of informing students about the latest regulations and guidelines. However, Key Informant MM1 unveiled that other than the COVID-19 guidelines, some departments like his, had no other OHS guidelines that staff could communicate

to students. This shows that without an OHS policy, the workers, just like other categories discussed above, lack formal OHS responsibilities. In addition, the lack of a policy has made it difficult for CHAU to have university-wide OHS regulations to guide the behaviour of every member of the University community. In view of the foregoing, the need for an OHS policy at CHAU cannot be overemphasised.

Reporting hazards, accidents, and injuries: ST1, ST2, ST3, TM2, TM3, TM5, MM1, MM3, and MM5 revealed that workers at CHAU have the responsibility of reporting hazards, accidents, and injuries. For example, key informants TM5 and MM5 stated that in the School of Early Childhood Studies, lecturers have the responsibility of reporting injuries and flu infections among infant learners enrolled at the Early Childhood Education Centre of Excellence. This study deduces that this responsibility should be included in the OHS policy for CHAU because it has also been incorporated in OHS policies at other universities such as the University of Southern Queensland (2021:2). Key informants ST1, ST2 and TM2 uncovered that the University did not have formal guidelines and procedures for reporting OHS hazards, accidents, and injuries. In addition, key informants TM and ST1 disclosed that staff members at CHAU did not know the nature or types of accidents to report. This can strongly be attributed to the absence of an OHS policy at the University. Evidently, the foregoing justifies the need for an OHS policy at CHAU.

6.2.10 Students

Interviews with key informants at CHAU revealed that students also perform health and safety responsibilities at the University. Generally, the findings show that students at CHAU have one OHS responsibility explained below.

Adherence to OHS regulations: Key informants TM2, TM3, TM4, TM8, MM2, MM3, SR1, and SR2 stated that it is the responsibility of every student to adhere to all the OHS regulations provided by the University. Key Informant TM3 stated that students in the School of Mathematics and Sciences had the responsibility of adhering to the laboratory guidelines. The allocation of OHS responsibilities to students is in line with international best practices. This is because it has been done at universities within and outside the African continent. For example, OHS policies at the University of Lagos (2016:5) in Nigeria and Oregon State University (2021) in the USA require students to adhere to all OHS regulations. This makes it clear that the OHS policy for CHAU should allot health and safety responsibilities to students at the University. Although CHAU has allocated OHS responsibilities to students, key informants SR1 and TM2 uncovered that they are not officially documented and backed by any formal procedures and processes. The foregoing further justifies the need for an OHS policy at CHAU.

6.2.11 Chalimbana university police post

An analysis of the interviews with key informants at CHAU unveiled that the CHAU police post was responsible for providing security at the University and surrounding communities. Key Informant ZP1 stated that the police post worked in conjunction with C7S security company to ensure that all members of the University community were safe. For example, Key Informant ZP1 pointed out that during the University's graduation ceremony, which usually takes place at CHAU, CHAU police post collaborates with C7S to prevent theft and possible harm to staff, students, and graduates and their invitees. Additionally, ZP1 revealed that CHAU police post also collaborated with C7S during night patrols at the University.

The foregoing notwithstanding, Key Informant ZP1 revealed that the police post struggled to provide adequate security at CHAU and the surrounding communities. She stated that the 7 police officers who were deployed at the CHAU police post were not enough. In view of the foregoing, this study deduces that the OHS policy for CHAU should establish arrangements to provide adequate security at the University.

6.2.12 Visitors

Like any other university, CHAU receives a number of individuals who visit the University for numerous reasons. Interviews with key informants established that visitors at CHAU had some OHS responsibilities as discussed below.

Adhering to OHS regulations: Key informants TM2, TM3, MM1, and MM5 pointed out that during the COVID-19 pandemic, visitors were required to observe all regulations such as masking up, sanitising, and social distancing. The allocation of health and safety responsibilities is in conformity with what is obtaining at several universities that have established OHS policies. For instance, UAE University (2015:1) in the UAE, Lupane State University (2017:3-4) in Zimbabwe, Trent University (2018) in Canada, Curtin University (2021:1) in Australia, and the University of Essex (2021:6) in England have all allocated OHS responsibilities to visitors. The foregoing gives impetus to include the OHS responsibilities for visitors in CHAU's OHS policy. Unfortunately, just like the responsibilities performed by other officials discussed above, the said OHS responsibility for visitors was not backed by formal guidelines. For instance, Key Informant TM2 revealed that:

"We do not have any written safety regulations for visitors."

In view of the foregoing, it is clear that the foregoing should be corrected by developing an OHS policy for CHAU.

6.2.13 Contractors

Interviews with key informants CC1, TM2, and TM5 revealed that contractors at CHAU had some OHS responsibilities. Generally, the contractors at CHAU had the following OHS responsibilities:

Adherence to OHS regulations: Key informants CC1, TM2, and TM5 stated that contractors had the responsibility of adhering to the University's OHS regulations. For example, Key Informant TM2 retorted that during the COVID-19 pandemic, contractors were also expected to follow all the preventive guidelines.

Safeguard their safety and that of others: Key Informant TM5 stated that contractors at CHAU have the responsibility of safeguarding their safety and that of others. He explained that:

"When contractors are working, they are not allowed to leave their tools or any objects in the play park as these could pose a danger to our infant learners. After they are done working, we inspect the play park to ensure that no tools or objects have been left behind."

The allocation of responsibilities to contractors is analogous to what universities with OHS policies have been practicing. For instance, visitors at the University of Lagos (2016:5) in Nigeria and the University of Toronto (2022) in Canada are required to adhere to university health and safety regulations. Therefore, the OHS policy framework for CHAU should provide for OHS responsibilities for visitors. This study found one major challenge with this responsibility that was pointed out by key informants CC1, TM2, and TM5. They stated that there were no official and formal guidelines provided to guide contractors on how to carry out their duties in a healthy and safe manner. In other words, there were no written OHS requirements in the agreements with contractors. The foregoing gives impetus to the need for an OHS policy at CHAU.

6.3 INFORMANTS' VIEWS ON EXISTING ARRANGEMENTS FOR MANAGING OCCUPATIONAL HEALTH AND SAFETY AT CHALIMBANA UNIVERSITY

In line with the institutional theory, which posits that institutional policies are determined by their values and practices, this study sought to establish the existing practices pertaining to OHS management at CHAU. This was important as it enabled the study to develop the OHS policy for CHAU by considering the arrangements that were already in existence at the University. Consequently, this section discusses the measures, processes, and procedures that are currently being used to manage hazards and risks at CHAU. As discussed under Section 3.6.2.3, an enterprise level OHS policy needs to have a section that identifies the arrangements that will be used to manage the hazards as well as meet the legal requirements and best practices. Therefore, this section sought to identify the arrangements that were being used to manage OHS at CHAU.

To do the foregoing, the key informants from CHAU were asked the following question: *What measures has management put in place to manage occupational hazards and accidents at CHAU?* This was important because it enabled the study to establish what existing arrangement should be included in the OHS policy for the University. As shown in table 5.2 of the thesis, there are five main categories of hazards that are prevalent at CHAU and these are physical hazards; chemical hazards; biological hazards; ergonomical hazards; and psychosocial hazards. Below is a discussion on the measures used to manage OHS in the absence of an OHS policy.

6.3.1 Measures against physical hazards

Interviews with key informants from CHAU revealed that there were a number of measures that were used to manage physical hazards at the University as discussed below.

6.3.1.1 Chopping boards, disposal, replacement and repair

Interviews with informants at CHAU revealed that some measures for managing hazards and risks relating to cuts and bruises were present at the University. As discussed under Section 5.7.1.5 of this thesis, the risk of cuts and bruises is posed by sharp instruments such as knives, chipped cups and plates, and damaged play equipment, among others. An interview with key informants MM5 and TM5 uncovered that the measures for managing cuts and risks at CHAU included using chopping boards; repairing damaged equipment; disposing of damaged equipment; and replacing damaged equipment. For instance, key informants MM5 and TM5 retorted that all students and staff in the School of Early Childhood Studies were required to use chopping boards when cutting vegetables and meat, among other foods. They added that to prevent cuts and bruises caused by chipped equipment, repair, disposal, and replacement were the preferred measures. Key Informant MM5 stated that all chipped cups and plates are disposed of as soon as they are discovered. With regard to measures aimed at protecting workers from chipped play equipment, Key Informant TM5 explained that:

“We protect infant children from injury by removing swings and slides that are not repairable and replacing them with functional ones. In addition, we are very prompt to repair any damaged equipment. Furthermore, we frequently inspect the equipment that the children use to play to make sure that they are in good shape. This is very important for us because children are delicate and are mostly unaware of danger. Therefore, we do our very best to ensure that all equipment is inspected every two weeks to check for any damages.”

Measures to manage sharp instruments have also been established at Durham University (2021:31) in England. Furthermore, disposing of and replacing hazardous equipment is one of the best measures recommended by the hierarchy of controls (NIOSH, 2022). Subsequently, it can

be posited that the OHS policy for CHAU should adopt the aforesaid measures to manage physical hazards. However, key informants TM5 and MM5 revealed that the said measures are only applicable to the School of Early Childhood Studies, even though everyone at the University is susceptible to cuts. Thus, the measures against cuts at CHAU fall short of international standards, which recommend that all members of an organisation should be protected from all occupational hazards (see Taylor *et al.*, 2004:65; ILO, 2009a:11; ISO, 2018:12). The foregoing demonstrates that CHAU does not have comprehensive guidelines to protect all members of the university community against cuts and bruises. It also means that other staff and students at the University are unprotected from cuts and bruises. This finding makes it clear that CHAU needs a comprehensive OHS policy that can protect all members of the University from occupational hazards (see Taylor *et al.*, 2004:65). Developing an OHS policy for CHAU will enable the University to replicate best practices prevailing at universities with OHS policies such as Binghamton University (2021) and Illinois State University (2021) in the USA that have developed measures that protect all members of staff, students, visitors, and contractors.

6.3.1.2 Security personnel and security facilities and equipment

As earlier discussed under Section 5.7.1.8, CHAU does not have a fence, and this makes it easy for unauthorised individuals to access the University campus. Consequently, as indicated by key informants TM2, TM6, ZP1, LM3, and CC1, the University has experienced a number of thefts. Additionally, members of the University community are exposed to the risk of physical attack by criminals. As a means of enhancing security, CHAU has put in place some measures. One of the measures is the presence of security personnel at the University. Key informants TM2, TM6, ZP1, LM3, ST1, and SR1 stated that CHAU had subcontracted a security company called C7S to provide specialised security services. In addition, the Zambia Police Service had established a police post at the University. An interview with CC1 revealed that C7S provides the University with daytime and night-time guards who are responsible for guarding key areas such as the library, administration office block, main entrance, and transport unit, among others. Additionally, key informants TM2, TM6, and ZP1 indicated that the CHAU police post is always manned by armed uniformed officers every day of the week. Furthermore, key informants CC1, ZP1, and TM6 revealed that CHAU police post and C7S work together to enhance security at the University. For instance, Key Informant CC1 stated that C7S guards and police officers sometimes, work in conjunction when patrolling the University campus, especially at night. To ensure that they perform their work effectively, they are provided with necessary weapons and gadgets. For example, key informants CC1 and ZP1 stated that police officers are usually armed with AK47s and C7S guards have walkie talkies and torches.

The other security measure that was identified by the key informants is the installation of security equipment such as streetlights and closed-circuit television (CCTV) as illustrated in Figure 6.1

and Figure 6.2 below, respectively. For example, Key Informant TM2 stated that streetlights were installed around the University to light up the surroundings at night to ensure that unscrupulous individuals do not use darkness as a cover for their criminal activities. He explained:

“To react to the risks of theft, physical attack by intruders, and snake and dog bites, we have installed security lights around the University to keep the campus adequately illuminated during nighttime.”



Figure 6-1: Street lights at Chalimbana University (Source: Researcher's archive, 2022/2023)

With regard to the installation of CCTV, key informants TM2 and TM6 stated that cameras had been strategically placed around the University. Key Informant TM2 added that cameras acted as the eyes of security personnel when no one was looking.



Figure 6-2: CCTV at Chalimbana University (Source: *Researcher's archive*, 2022/2023)

The provision of security to promote the safety of individuals in a university has also been done at other institutions of higher learning. For example, in its OHS policy, the Chinese University of Hong Kong (2014:3) has included the position of security officer to coordinate the provision of security at the institution. In view of the foregoing, this study deduces that the current security processes and procedures at CHAU should be incorporated in the University's OHS policy.

Although security guards and officers are present at CHAU, this study found some challenges. First, Key Informant ZP1 revealed that the seven police officers deployed at the police post were not enough as they were also required to serve surrounding communities. Second, the guards fail to execute their functions due to some factors. For instance, Key Informant CC1 complained that it was difficult for security officers to manage unauthorised entry to the University due to the lack of a wall fence. Furthermore, he pointed out that the lack of a proper barrier at the University's main entrance made it difficult to stop and screen individuals who visited the University with vehicles. This finding reveals the challenges of not having an OHS policy in place. The study contends that, had the University established an OHS policy, it is likely that security at the University would have been prioritised. Consequently, some of the aforementioned problems

would have been rectified. From the foregoing, it can be said that CHAU needs an OHS policy to prioritise security at the University, among others.

6.3.1.3 Mopping floors and guard rails

Interviews with key informants at CHAU established that mopping floors and guard rails are some of the measures that were used to manage injuries associated with slipping and falling. For example, key informants MM5 and TM5 indicated that floors were consistently mopped in the School of Early Childhood Studies. Key Informant MM5 stated that:

“During every activity in the kitchen such as cooking, we make sure that the floor is always mopped. During every session, we assign a student to constantly mop the floor in the kitchen. This has helped to prevent accidents such as falling, especially that our students do not have house shoes.”

The above sentiments were repeated by Key Informant TM5 who confirmed that the said School had made deliberate efforts to ensure that students and staff did not fall as they carried out their duties. He indicated that mopping floors in the School of Early Childhood Studies intensified during the rainy season when most floors were wet. As such, the School usually procured a lot of mops.

In addition to mopping floors, key informants TM3 and MM5 stated that the University had installed guard rails as illustrated in Figure 6.3 below. This was aimed at preventing individuals from falling off the stairs. These measures are in conformity with health and safety laws in Zambia. For example, the Factories Act of 1967 requires employers to act quickly and appropriately when floors in an organisation become wet so as to prevent falling. The foregoing makes it inevitable that the said measures to prevent falling should be included among the OHS arrangements in the health and safety policy for CHAU.



Figure 6-3: Staircase with guard rails at Chalimbana University (Source: Researcher's archive, 2022/2023)

The foregoing notwithstanding, this study found that not all schools at CHAU had developed OHS measures against the risk of falling. For instance, Key Informant TM2 indicated that only the School of Early Childhood Studies consistently mopped floors with the view to prevent falling among members of the University community. Additionally, Key Informant TM2 stated that not all staircases at CHAU had guard rails as illustrated in Figure 6.4 below.

This finding shows that CHAU needs an OHS policy, which can introduce measures that protect all members of the University community, rather than a selected few.



Figure 6-4: Staircase with no guard rail at Chalimbana University (Source: Researcher's archive, 2022/2023)

6.3.1.4 Firefighting equipment

Interviews with key informants from CHAU revealed that the University had in place three types of firefighting equipment. First, the University has acquired fire extinguishers as illustrated in Figure 6.5 below. For instance, Key Informant TM2 stated that after a series of fires at CHAU, the University procured fire extinguishers and installed them in offices, classrooms and laboratories, the library, and corridors, among others. In the same vein, Key Informant TM3 revealed that following the destruction of university property such as mattresses and a laboratory roof, the University responded by buying a number of fire extinguishers that have been installed around the University. He noted that the extinguishers were regularly serviced to make sure that they are always in a functional condition. Key Informant TM4 also weighed in on the installation of fire extinguishers when she stated that CHAU had responded positively to the fire incidents that had recently destroyed university property.



Figure 6-5: Fire extinguisher in a laboratory at Chalimbana University (Source: Researcher's archive, 2022/2023)

Second, the findings of this study show that the University had outlawed cooking in students' hostels. As stated by Key Informant TM4:

"To prevent fire and electrical hazards, students are not allowed to cook from their rooms. The rooms were not designed for cooking. Students are supposed to eat from the dining hall, but this is not the case due to the huge numbers that are now at CHAU. Therefore, kitchens have been introduced in each block to minimise the risk of fires."

Third, interviews with key informants revealed that CHAU had purchased fire blankets and installed them in the laboratories as illustrated in figure 6.6 below. Key Informant TM3 stated that the purpose of fire blankets was to prepare for the possibility of an individual catching fire in the laboratory. He explained that:

"The fire blanket is very effective. In case a fire breaks out in the laboratory, and someone is on fire, all that needs to be done is to grab the fire blanket and throw it over the victim. In most cases, the fire is put out instantly."



Figure 6-6: A fire blanket in a laboratory at Chalimbana University (Source: Researcher's archive, 2022/2023)

The acquisition of firefighting equipment by CHAU is in conformity with OHS legal requirements in Zambia. For instance, it is in conformity with the Factories Act of 1967, which obliges all employers to install firefighting equipment at their workplace. Furthermore, the University's efforts to install fire extinguishers and fire blankets conforms to HEA established standards required for a university to operate in Zambia. For instance, in order for a university to be successfully registered and allowed to operate in Zambia, it is required to have in place firefighting equipment such as fire extinguishers (HEA, 2020b:14). In view of the foregoing, this study suggests that these measures against fire should be adopted in the OHS policy for CHAU under the arrangements sections.

However, this research found that, although the University had installed fire extinguishers at its campus, key informants TM3, MM1, and MM2 revealed that this action was not followed up by a training programme to teach members of the university community on how to fight fires as required by the Factories Act of 1967. This means that, even though the University had put in place fire extinguishers, members of staff and students would not know how to use them to put out a fire in an event that it broke out. As such, the University needs an OHS policy to introduce planned OHS training programmes.

6.3.1.5 Electrical experts

Interviews with informants at CHAU established that the University had demonstrated some commitment to curbing electrical hazards. This commitment had come in form of employing qualified electricians who had been tasked with the responsibility of rectifying all electrical-related faults and challenges at the University. In illustrating the foregoing, Key Informant TM4 indicated that:

“The University has two qualified electricians who are tasked with the responsibility of inspecting electrical connections and naked wires around the University. No other person in the University is allowed to attend to electrical faults.”

He posited that the foregoing reduced the chances of staff and students getting electrocuted as only electrical experts were allowed to remedy all electrical faults in the University. This study suggests that this measure should be included among the OHS processes in the health and safety policy for CHAU. This is because similar measures have been adopted at universities that have established OHS policies. For example, Kwame Nkrumah University of Science and Technology (2018) in Ghana and Durham University (2021:31) in England have both put in place measures to protect staff and students from electrical hazards.

The foregoing notwithstanding, interviews with key informants revealed that the University had no formal guidelines for managing electrical hazards. For example, key informants LM4 and TM2 revealed that the work of the University electricians was not guided by any formally established guidelines focusing on OHS. As such, most of the work they did was reactive rather than proactive. The foregoing demonstrates that CHAU requires an OHS policy that can enable the introduction of necessary and appropriate processes for the management of electrical hazards.

6.3.1.6 Grievance appeal procedures

As explained under Section 5.7.1.9, staff, especially lecturers at CHAU, are at risk of physical attack from aggrieved students. In response to the foregoing hazard, the University has introduced appeal processes that students can use to air out their concerns. During an interview with key informants TM2 and TM3, it was revealed that aggrieved students were permitted to launch an appeal to their HOD in writing. Key Informant TM3 stated that the appeal process gives students a sense of fairness because they are given an opportunity to be heard. Additionally, Key Informant TM2 provided the following explanation:

“Any academic complaints that students have against a lecturer should first be reported to the lecturer’s supervisor who is the HOD. After which, the matter is

reported to the Dean who can then report to the VC if he/she cannot resolve it. The VC is the final decision-maker for all appeals.”

In view of the foregoing, this study deduces that this measure should be adopted in the OHS policy for CHAU.

Notwithstanding the foregoing, key informants MM1, SR1, SR2, and SR3 noted that most students at the University were unaware of these appeal processes. Key informants MM1 indicated that it is pointless to have appeal processes that students did not know about. He posited that there were no documents that had been shared with the University community to explain the process of appeals. This shows that students are generally unaware. From the foregoing, it can be posited that CHAU needs an OHS policy that can establish effective communication of OHS information as required by health and safety best practices (see Hughes & Ferret, 2016:55; CCOHS, 2021).

6.3.1.7 Red cross society

An analysis of empirical data collected from key informants at CHAU unveiled that students at the University had established a red cross society to provide OHS-related training. In light of the foregoing, key informants SR1, SR2, and SR2 noted that the red cross society conducted training sessions aimed at teaching students how to offer first aid treatment to their counterparts. Key Informant SR1 stated that the Society worked closely with the Minister of Health in the students' union to organise and execute the said trainings. He further stated that the Society played a major role during sports activities as it was always present to offer treatment to injured students. This finding demonstrates that CHAU had established some measures aimed at providing OHS services such as immediate treatment for injury. This is similar to what is obtaining in universities that have established OHS policies. For example, a number of universities in Australia have established first-aid training programmes (see University of Wollongong, 2020; Curtin University, 2021; University of Canberra, 2021; University of Melbourne, 2021; University of Southern Queensland, 2021; Australian National University, 2022).

Although the foregoing is necessary to the management of OHS at CHAU, Key Informants TM2, SR1, SR2, SR3, and ST1 unveiled that it only applied to students. This is not adequate as the University has other categories of individuals that may require first-aid training and treatment. As such, it can be stated that CHAU needs an OHS policy that will provide guidelines for training all members of the university community on first aid training.

6.3.2 Measures against chemical hazards

Interviews with key informants from CHAU revealed that CHAU had established measures aimed at protecting staff and students from chemical hazards that are prevalent at the University. Below is a discussion of the said measures.

6.3.2.1 Construction of new infrastructure

An interview with Key Informant TM2 uncovered that the Government of Zambia had started constructing new offices, classrooms, hostels, and houses just a few metres away from the current infrastructure. He acknowledged that, although the construction of the new infrastructure was not inspired by the need to manage chemical hazards at the University, it was going to replace hazards like asbestos with iron sheet rooftops. He added that once completed, most of the University operations would take place in the new structures, thereby negating risks associated with asbestos. This measure is similar to the substitution technique recommended by the hierarchy of controls. Substitution involves the replacement of a hazardous material or substance with a less hazardous one (NIOSH, 2022). In this case, the new structures at CHAU would replace the hazardous asbestos rooftops with the less hazardous iron sheets.

Although the foregoing measure is commendable, it does not completely eliminate the risk posed by asbestos. This is because, as Key Informant TM2 put it, the current structures will still remain in use. This means that there will still be a segment of the university population that will be exposed to the risk posed by asbestos. In view of the foregoing, the need for CHAU to develop an OHS policy to include processes for the management of asbestos cannot be overemphasised.

6.3.2.2 Frequent cleaning

Research interviews at CHAU revealed that the University had subcontracted a cleaning company called Esmili Cleaning Company to provide cleaning services. Key Informant MM4 pointed out that the said cleaning company was responsible for cleaning and dusting offices and lecture rooms, among others. Correspondingly, Key Informant TM2 indicated that the afore-mentioned cleaning company helped to protect the university community from the effects of dust that had characterised the campus. In keeping with the foregoing, Key Informant MM5 retorted that, to control the effects of dust on infant children at the Early Childhood Education Centre of Excellence, the School cleaned classroom carpets at least twice every term. This finding is in conformity with the provisions of the Factories Act of 1967, which requires employers to protect workers from inhaling dust, among others. Therefore, this measure ought to be adopted in the OHS policy for CHAU.

It is the view of this study that CHAU could do more to protect members of the university community from the risks posed by dust. The study deduces that CHAU could invest in paving its carparks, driveways, and walkways that were still dusty. This would lessen the amount of dust settling in offices and classrooms. Therefore, CHAU needs an OHS policy that can propose the establishment of more measures against dust.

6.3.2.3 Laboratory safety rules and restrictions

Interviews with MM3 and TM3 revealed that CHAU had established some laboratory safety rules. Key Informant TM3 indicated that the School of Mathematics and Sciences had established rules aimed at promoting safety in laboratories. He stated that these were stuck on laboratory doors, walls, and notice boards as illustrated in Figure 6.7 below.



Figure 6-7: Laboratory safety rules at Chalimbana University (Source: Researcher's archive, 2022/2023)

Key informants MM3 and TM3 indicated that the safety rules shown in Figure 6.7 above were aimed at guiding students on how to be safe in the laboratory. Key Informant TM3 stated that the laboratory safety rules identified the individual as the focal point in the management of health and

safety in the laboratory. For example, the said rules state that: *“The biggest danger in the laboratory is you! You are a danger whenever you are either ignorant or careless or both. Remember this because the person likely to suffer from your mistakes is you!”* This is in line with international standards that insist that every individual in the workplace has the responsibility to ensure that their safety as well as that of others is prioritised. Specifically, there are 13 laboratory safety rules that CHAU has established in the School of Mathematics and Sciences as presented in Table 6.1 below.

Table 6-1: Laboratory safety rules at Chalimbana University

S/N	LABORATORY SAFETY RULES
1	Never run or rush about in the laboratory
2	Never put anything in your mouth in the laboratory
3	Never take anything from the laboratory without permission
4	Never throw anything in the laboratory
5	Never interfere with equipment of chemicals in the laboratory
6	Long hair must be tied back and ties, cardigans etc should not be allowed to hang freely. Do not use hair spray before going in the laboratory
7	When heating things use small amount and watch carefully what you are doing all the time. Take care not to point test tube at yourself or anybody else and never look directly down a test tube
8	If you get something in your mouth spit it out at once and wash your mouth with lots of water
9	Leave floors and tops clean
10	Do not eat sweets, chew gum, pencil or fingers in the laboratory
11	Never interfere with electrical fittings, with gas water taps, fire extinguisher
12	Make sure you know what you are supposed to do. In doubt ask the lecturer
13	Always check that the label on the bottle is exactly the same as the material you want

Source: Researcher’s field data, 2022/2023

In addition to the above-mentioned laboratory safety rules, Key Informant TM3 unveiled that the School of Mathematics and Sciences had restricted the usage of laboratories to laboratory experiments only as demonstrated in Figure 6.8 below. He stated that:

“In the past, student not enrolled in our School would use laboratories for studies due to limited space in the library. We felt that this was a risk to them because they may not understand how harmful chemicals can be. So, we have displayed notices in all laboratories to prevent students from using them as study rooms.”



Figure 6-8: Notice prohibiting students from studying in a laboratory at Chalimbana University (Source: Researcher's archive, 2022/2023)

The foregoing notwithstanding, the study established that the above-mentioned laboratory rules had not been reviewed in a decade. An interview with Key Informant TM3 revealed that no review had been conducted on the CHAU laboratory rules since they were developed about ten years ago. This falls short of best practices which recommend that OHS measures should be reviewed regularly (ILO, 2009a:8). As such, CHAU should develop an OHS policy that provides guidelines for reviewing OHS measures regularly.

6.3.3 Measures against biological hazards

The findings of this research found that there were some measures used to manage biological hazards at CHAU. These are discussed below.

6.3.3.1 Readily available hospital transportation and communication

Interviews with Key Informant LM3 unearthed that arrangements were in place to ensure that ill students were quickly ferried to the nearest health facility for medical attention. For instance, Key Informant LM3 stated that the University had a Matron who was easily accessible to students both in the daytime and at night. During daytime, the Matron was easily accessed from her office, which was situated at the student's hostels. At night, students had access to her via the phone as her number was made available to them, and they were aware that they could call her at any time for

help. In addition to the foregoing, Key Informant LM3 stated that most students knew where the Matron's house was. In agreeing with Key Informant LM3, Key Informant SR1 stated that:

“The Matron is the go to person for all students who fall ill while on campus. She always makes herself available to the students.”

In relation to transportation, Key Informant LM3 indicated that whenever it was determined that a student needs to be taken to the clinic or hospital, drivers were requested to ferry the said student to the hospital regardless of whether it was night-time or day-time. The Key Informant added that during the night, there were drivers who were always on call to help ferry ill students to the clinic. This conforms to the provisions of the Employment Code Act of 2019, which obliges employers to provide transportation for workers to a medical facility.

However, Key Informant LM3 stated that the University Matron only attended to students. This means that other members of the University community are not catered for. This falls short of best practices that recommend that every organisation should develop OHS processes that consider all members of the University community. As such, it is evident that CHAU needs an OHS policy to conform to the foregoing.

6.3.3.2 Hygiene measures

An interview with key informants MM5 and TM5 revealed that only the School of Early Childhood Studies had guidelines to promote hygiene as illustrated in Table 6.2 below.

Table 6-2: Hygiene measures for the School of Early Childhood Studies at Chalimbana University

S/N	HYGIENE MEASURES
1.	Teachers and student teachers are not allowed to go to the toilet with their lab coats which they wear during classes and practicals.
2.	When preparing food for children, all students must cover their heads to ensure that hair does not fall into the food.
3.	Students must not paint their nails. Also, their nails must be kept short. This is aimed at promoting hygiene when handling food.
4.	Mops for the bathroom are different from those used in the kitchen. This is aimed at preventing the spread of germs from the bathroom to the kitchen. This further helps to stop water borne diseases.
5.	There is also a distinction between dishes for cleaning and storing food and washing dirty dishes. For example, dishes for food are purple in colour whereas dishes for washing dirty plates are blue in colour. This makes it easier for students to identify which dishes to use for different purposes.
6.	All toilets used by students and infant learners from the School of Early Childhood Studies are constantly disinfected.
7.	All students must have different towels for different functions. For example, each student must have a hand towel and a tea towel which they use alone. This promotes hygiene.

Source: Researcher's field data, 2022/2023

While these hygiene measures are commendable, Key Informant MM5 pointed out that they only apply to the School of Early Childhood Studies. The foregoing demonstrates that CHAU does not meet the best practice standards recommended by the ILO and ISO that require organisations to develop comprehensive measures. As such, CHAU should develop an OHS policy that provides for protecting all members of the university community from biological hazards.

6.3.3.3 Quarantine

Key informants TM2, TM5, MM5, and LM3 unveiled that quarantine had been used to manage biological hazards at CHAU. Key Informant TM2 stated that during the COVID-19 pandemic, all individuals with flu symptoms were asked to stay at home or in their rooms. Additionally, key informants TM5 and MM5 revealed that even before the pandemic, quarantine had been used to manage flu infections among infant learners in the School of Early Childhood Studies. Key Informant MM5 responded that, in the aforesaid School, all staff, students, and infant learners with flu symptoms were required to stay home. She added that all the parents of the infant learners had been informed not to bring their children to school when they had flu symptoms. Quarantine is recommended under the hierarchy of controls as an effective measure to manage hazards. Particularly, this is recommended under administrative controls of the said hierarchy (NIOSH, 2022).

However, key informants MM5, TM2, TM5, and LM3 stated that university-quarantine measures had been abandoned following the relaxation of COVID-19 regulations. As a result, key informants MM5 and TM2 pointed out that only the School of Early Childhood Studies still quarantined individuals to manage viral infections at CHAU. As a result, it can be posited that CHAU needs a comprehensive OHS policy to provide guidelines for managing biological hazards.

6.3.3.4 Water testing and treatment

As discussed under Section 5.7.3.1 poor sewer system was found to be a biological hazard at CHAU. Key Informant LM4 retorted that to alleviate the above-mentioned hazard, the University regularly tested its drinking water to ensure that it was safe. Additionally, an interview with Key Informant TM4 unearthed that boreholes at the University were frequently chlorinated to curb waterborne diseases. Furthermore, Key Informant LM4 explained that all the University boreholes had been secured and properly covered to prevent dirt, small animals, and insects from falling inside. These measures are in line with the Occupational Health and Safety Act of 2010, which requires employers to provide a work environment that is free from harm to the workers.

The foregoing notwithstanding, key informants LM4, TM2, and TM4 stated that the said measures were not formally written down. This shows that CHAU needs a written OHS policy that would formally designate these responsibilities to specific officers within the University. This would make

it possible for the University to review these measures whenever need arose or when the scheduled period elapsed.

6.3.3.5 Vaccination

A review of empirical data for this study revealed that vaccination had been used as a measure against biological hazards at CHAU. For example, key informants TM1, TM2, TM3, TM4, TM5, MM1, MM2, MM3, MM4, ST1, ST2, ST3, SR1, SR2, SR3, and LM3 stated that during the COVID-19 pandemic, the University, through the COVID-19 Task Force, organised programmes aimed at vaccinating willing members of the University community. In addition, as discussed under Section 5.7.3.5 of this thesis, CHAU had a problem of stray dogs that posed the risk of rabies. To curb the risk of rabies among staff, students, infant children, visitors, and contractors, Key Informant TM4 posited that the University worked with the Chongwe Municipal Council to vaccinate dogs from the surrounding communities. From the foregoing, it is clear that the OHS policy for CHAU should provide arrangements to manage risks associated with stray dogs.

6.3.3.6 Health and safety signs and symbols

Interviews with the key informants of the study uncovered that signs and symbols had been used as measures for promoting health and safety at CHAU as illustrated in Figure 6.9 below. For example, key informants TM2, TM4, LM3, and MM5 pointed out that during the COVID-19 pandemic, the University had stuck a number of signs and symbols around the campus to promote adherence to the preventive and protective guidelines. Additionally, key informants TM3 and MM3 stated that the School of Mathematics and Sciences had stuck symbols in the laboratories to enhance health and safety among students during laboratory experiments. This finding demonstrates that CHAU made some efforts to conform to best practices adopted by universities that have developed and implemented OHS policies. For example, the Chinese University of Hong Kong (2014:3) and the University of Hong Kong (2019) had mounted health and safety signs and symbols to enhance OHS management.

Notwithstanding the foregoing, key informants TM4, MM5, and LM3 stated that aside from those related to the COVID-19 pandemic, there were insufficient signs and symbols providing OHS information around the University. Therefore, it can be posited that CHAU needs an OHS policy to establish arrangements for communicating relevant OHS information around the University using appropriate signs and symbols.



Figure 6-9: Covid-19 signs and symbols at Chalimbana University (Source: Researcher's archive, 2022/2023)

6.3.3.7 Increasing water supply

Under Section 5.7.3.2 of this thesis, it was established that CHAU had inconsistent water supply, which posed the risk of waterborne diseases as it compromised hygiene levels at the University. In response to this hazard, key informants, LM3, LM4, and TM2 stated that the University had implemented two measures. First, Key Informant LM4 revealed that CHAU had sunk five boreholes to improve the supply of water to the University community. Second, as revealed by key informants LM3, LM4, and TM2, the University had installed overhead tanks for water storage as shown in Figure 6.10 below. This finding reveals that CHAU had made efforts to conform to the Factories Act of 1967, which requires employers to provide adequate and safe drinking water as well as water for maintaining hygiene in the workplace. However, an interview with Key Informant LM4 uncovered that although the University had sunk five boreholes, the water supplied was not adequate due to the massive population at the University. As such, he reported that the water problem was still a reality at CHAU. Therefore, it is evident that CHAU needs an OHS policy to provide arrangements for enhancing the supply of water at the University.



Figure 6-10: Overhead storage water tanks at Chalimbana University (Source: Researcher's archive, 2022/2023)

6.3.3.8 Sexual health education and condom distribution

As noted under Section 5.7.3.3 of this thesis, indiscriminate sexual relations were found to be the major cause of STIs at CHAU. The responses of the informants showed that the University had use some measures to manage the risks associated with indiscriminate sexual relations. For example, key informants TM2, SR1, SR2, and SR3 stated that the University had partnered with UNESCO under the Our Rights, Our Lives, Our Future (O3 PLUS) project, which provided sexual education to students at CHAU. The key informants posited that the said project facilitated the distribution of condoms and conducted HIV testing. Key Informant LM3 stated that the University Matron also played a role in managing the spread of STIs at CHAU. She stated that the Matron usually conducted sensitisation among students on the importance of sexual health. Additionally, Key Informant MM4 revealed that the University had allocated some counsellors to female and male hostels to constantly sensitise them on sexual and reproductive health. In view of the foregoing, it can be noted that CHAU has responded positively to the risk of STIs at the University.

However, Key Informant TM2 and SR1 confirmed that all the above-mentioned efforts only focused on students. This means that other members of the University community had been overlooked. This is not in conformity with international standards that recommend that the scope of OHS measures should be the entire population of an organisation (see ISO, 2018). As such, it is clear that CHAU needs a comprehensive OHS policy.

6.3.3.9 Fumigation and clearing bushes and tall grass

The empirical findings discussed under Section 5.7.3.6 of this thesis established that the university community at CHAU was exposed to risks associated with mosquitos such as malaria. The findings of the study show that CHAU had employed some measures in response to the risk of malaria. To alleviate the aforementioned risk, Key Informant TM4 stated that the University regularly fumigated the campus surroundings to eliminate mosquitoes. Similarly, Key Informant TM7 pointed out that the University worked with the Ministry of Health to fumigate its surroundings. In addition to fumigating, Key Informant TM4 stated that the University also cut down tall grass and cleared thickets around the campus to deny mosquitoes a conducive environment for breeding. The foregoing measures demonstrate that CHAU has shown commitment to creating a health and safe environment for its workers as is required by the Factories Act of 1967. Unfortunately, these measures are not formally documented. This skews away from best practices that recommend that all organisations should have written guidelines that would be readily available for all relevant stakeholders. In view of the foregoing, this study deduces that CHAU requires a proactive and comprehensive OHS policy.

6.3.4 Measures against ergonomic hazards

The findings of this study uncovered that CHAU had not done much to protect the members of the university community from ergonomic hazards. This is because, only measures targeting the effects of lifting heavy loads were found to be present. Below is a discussion of the measures targeting the risk of lifting heavy loads.

6.3.4.1 Trolleys

An interview with key informants TM1 and LM1 revealed that the University had purchased trolleys that staff in the library used to carry heavy boxes and books as shown in Figure 6.11 below. They added that the trolleys were bought to protect library workers from backaches, neck pains, and hand fatigue. This finding is important because it shows that CHAU had made efforts to respond to ergonomic hazards in line with legal requirements. For example, the Factories Act of 1967 requires employers to protect their workers from injury resulting from lifting heavy objects. The foregoing notwithstanding, mitigation measures targeted at ergonomic hazards were not widespread at CHAU. Key informants TM2 and TM4 revealed that the University did not have established standards to provide overall guidelines for managing ergonomic hazards. This implied that workers in other units and departments worked without any protection from ergonomic hazards. This can be attributed to the lack of an OHS policy to enable the University to identify hazards and then develop arrangements for managing each hazard. As such, it is evident that CHAU needs an OHS policy.



Figure 6-11: A trolley in the library at Chalimbana University (Source: Researcher's archive, 2022/2023)

6.3.5 Measures against psychosocial hazards

Interviews with key informants from CHAU revealed that the University had made some efforts to curb the risks posed by psychosocial hazards. Below are the measures uncovered by empirical data collected using semi-structured interviews.

6.3.5.1 Counselling

Key Informant LM3 revealed that although there was no counselling centre at CHAU, some counselling services were being offered at the University. Key informants LM3 and MM4 stated that the University Matron offered counselling services to students that were experiencing stress due to sexual harassment, early and unwanted pregnancies, and STIs, among others. Furthermore, it was established that *de facto* counsellors had been designated to help the Matron provide psychosocial counselling to students who experienced mental trauma. Key Informant MM4 revealed that to encourage openness, female students were allocated female counsellors and male students were allocated males counsellors.

6.3.5.2 Reduced enrolment rate

As discussed under Section 5.7.5.2, workers at CHAU are exposed to risks associated with abnormal workload. Interviews with informants from CHAU revealed some measures used by the University to manage abnormal workload. Key Informant TM3 pointed out that due to the fact that lecturers became overwhelmed with too much work, the management reduced the number of

intakes for distance students from three to two. He stated that previously, the University had three intakes for distance students. These were April intake, August intake, and December intake. However, in a bid to reduce the workload for academic staff, the August intake was discontinued. This finding demonstrates that the management at CHAU acted to alleviate the risks associated with abnormal workload. However, the measures that had been implemented were not effective. For instance, Key Informant TM3 indicated that despite one intake for distance students being halted, the workload was still too much. He added that this was due to understaffing at the University. In view of the foregoing, it can be posited that CHAU needs a comprehensive OHS policy that would enable the University to come up with arrangements for managing abnormal workload.

6.4 INFORMANTS' VIEWS ON THE CHALLENGES OF HEALTH AND SAFETY MANAGEMENT AT CHALIMBANA UNIVERSITY

This section sought to establish the challenges that hampered the management of OHS at CHAU. The challenges were revealed by the key informants at CHAU when responding to a number of questions that will be indicated when addressing each challenge. Generally, the challenges to OHS at CHAU were attributed to the lack of an OHS policy. For example, Key Informant TM2 admitted that the management of OHS at CHAU was challenging due to the absence of an OHS policy. He acknowledged that in the absence of an OHS policy, the University had no laid out plans pertaining to the alleviation of injuries and illnesses among staff, students, infant learners, visitors and contractors. Specifically, the challenges unearthed by the key informants are discussed below.

6.4.1 Lack of management commitment to occupational health and safety

This challenge was brought out by key informants ST1, ST2, ST3, and TM3 when they were asked the following question: *What have been the challenges of managing health and safety at CHAU?* key informants ST1, ST2, and ST3 posited that top level management had not demonstrated enough commitment to safeguarding the welfare of staff and students at CHAU. This resonated with the assertion by Key Informant TM3 who expressed disappointment at management's decision to immediately abandon COVID-19 regulations following government's decision to relax the preventive and protective measures. He pointed out that the foregoing epitomised top management's overall attitude to OHS at the University. This finding reveals one of the major problems of OHS management in any given organisation. Without management's commitment, OHS management in any given organisation is unlikely to succeed. This is because management is responsible for providing leadership in building a positive OHS culture and providing the necessary resources (see Cockburn, 2012:18; Reese, 2017:37; Perez, 2019:49; McKinnon,

2020:73-74). The foregoing makes it clear that CHAU needs an OHS policy to demonstrate management commitment to OHS.

6.4.2 Lack of an occupational health and safety policy

When asked to state *What have been the challenges of managing health and safety at CHAU?* Key informants TM2 and TM3 contended that the lack of an OHS policy at CHAU was the major challenge to safeguarding the health and safety of staff, students, visitors, and contractors at the University. For example, Key Informant TM2 emphasised that in the absence of an OHS policy, the University had no specific direction mapped out to alleviate hazards and risks. Similarly, Key Informant TM3 indicated that without a policy, there were no guidelines to be followed by the University to protect staff and students from occupational accidents and diseases. In addition, Key Informant TM3 stated that:

“We are not proactive when it comes to managing health and safety at Chalimbana University. Instead, we only put in place measures when something happens. I am sure you heard there was a fire here not so long ago. Only after that did management buy fire extinguishers.”

In justifying the foregoing, the said key informant added that the management had not yet installed speed humps along the road that passes right in front of the main entrance to the University, despite knowing that someone can easily be run over. Additionally, Key Informant TM3 posited that the lack of an OHS policy was responsible for CHAU not having OHS guidelines for safeguarding the health and safety of all members of the university community.

The foregoing confirms that CHAU does not meet best practices, which recommend that organisations of any size and type should develop an OHS policy that proactively and comprehensively determines how an organisation would alleviate occupational hazards and risks. Therefore, this study deduces that CHAU requires a proactive and comprehensive OHS policy in line with best practices (see ILO, 2009a:5-6; Hughes & Ferrett, 2016:51-52; ANSI, 2017:5-6; ISO, 2018:9).

6.4.3 Poor occupational health and safety culture

This challenge was unveiled when the researcher asked the key informants the question: *What have been the challenges of managing health and safety at CHAU?* Key informants TM2, TM3, and ST1 uncovered that one of the major challenges of managing health and safety at the University was the poor OHS culture. Key Informant TM2 indicated that members of the University community such as managers, workers, and students did not take health and safety seriously. These views were echoed by Key Informant ST1 who posited that many people at the University did not seem to care much about health and safety issues because they falsely perceived CHAU

to be a safe working environment. Furthermore, Key Informant TM3 attributed the poor OHS culture at the University to the lack of commitment to OHS on the part of top management. He contended that management had shown a lacklustre attitude towards health and safety when they abandoned COVID-19 regulations immediately after the government relaxed restrictions. This finding proves the assertion by Hossain *et al.* (2014:371), that globally, universities struggle to effectively manage health and safety because of poor OHS culture, among others. As such, the need for an OHS policy at CHAU to enhance a positive OHS culture cannot be overemphasised.

6.4.4 Absence of a university health facility

This challenge was unveiled when key informants were asked the following question: *What have been the challenges of managing health and safety at CHAU?* Key informants LM3, SR1, SR2, and TM2 lamented that the lack of a university health facility made it very difficult to promote good health at CHAU. For instance, key informants SR1 and SR2 contended that CHAU needed its own clinic where students could easily and quickly access medical services. They lamented that medical facilities outside the University did not prioritise students no matter how sick they were. Key Informant LM3 added that the work of the University Matron would have been easier if the University had its own medical facility. She indicated that, sometimes, when students are taken to Chalimbana Rural Health Centre for medical attention at night, there would be no medical personnel. Other times, the challenge was lack of medication.

The foregoing demonstrates that CHAU falls short of legal requirements in Zambia. For example, the Employment Code Act of 2019 requires employers to provide medical facilities to their workers. In view of the foregoing, CHAU needs an OHS policy to enable the establishment of medical facilities as the case is at other universities. For example, Zayed University (2019:2) in the UAE has implemented an OHS policy that has demonstrated management's commitment to establish a health facility.

6.4.5 Absence of a university Council

This challenge was unearthed by key informants at CHAU when they were asked the following question: *What have been the challenges of managing health and safety at CHAU?* Responses from Key Informant TM2 revealed that at the time of collecting data for this study, CHAU did not have a Council. He stated that one of the reasons why the University did not have an OHS policy was because there was no Council to approve policies. He added that, in view of the foregoing, the management at the University did not have the impetus to expedite the process of developing an OHS policy. The views of Key Informant TM2 were supported by Key Informant TM4 who confirmed that a number of activities at the University were progressing slowly due to the lack of a Council.

6.4.6 Inadequate funding

Key informants of the study revealed that inadequate funding posed challenges to OHS management at CHAU when they were asked the following question: *What have been the challenges of managing health and safety at CHAU?* Key Informant TM2 revealed that funding was a major challenge at CHAU. As such, the University had inadequate financial resources to invest in effective OHS management. Consequently, he pointed out that the University was unable to build a clinic, buy better chairs and tables, and replace asbestos rooftops. Similarly, key informants TM5 and MM5 added that due to inadequate finances, the School of Early Childhood Studies was unable to replace metal playing equipment for infant children with plastic ones, which are safer. Furthermore, Key Informant MM5 stated that due to lack of finances, the University was unable to procure appropriate PPEs such as house shoes. However, Key Informant ST1 retorted that if the management at CHAU was committed to OHS, they would have allocated the little resources they had towards improving the OHS situation at the University. He wondered how they always had finances to organise numerous workshops and pay allowances to attendees but could not afford to buy basic PPEs.

The problem of inadequate funding for public universities in Zambia is a well-known fact. For example, Chisenga (2016:6) argued that despite UNZA being the flagship institution of higher learning in the country, it was not receiving enough funding from the government. This finding illustrates that CHAU needs to develop an OHS policy that would enable the University to prioritise health and safety management. This would, in turn, enable the University to budget for OHS as it does for other systems such as human resources management, among others.

6.4.7 Inadequate health and safety training

This challenge was pointed out by key informants from CHAU as they answered the following question: *What have been the challenges of managing health and safety at CHAU?* Key informants MM1, MM2, ST1, and LM1 contended that the OHS training at CHAU was inadequate. For instance, Key Informant MM1 stated that, although the University had bought and installed fire extinguishers around the University, no training programme had been organised to teach staff and students how to use them. In confirming the foregoing, Key Informant MM2 wondered how many people at the University could manage to put out a fire using the existing fire extinguishers as there had been no training offered to the university community. Similarly, Key Informant ST1 unveiled that staff and students at the University had not been trained on the basics of OHS management. Key Informant LM1 added her voice to the foregoing when she revealed that she had never heard or attended any OHS training programme at the University.

This finding shows that CHAU is ill-prepared for OHS management. This is because health and safety training for all members of an organisation is a key component of health and safety

management (see ILO, 200a:8; ISO, 2018:15). This is why most universities with an OHS policy have established health and safety training programmes. For example, the literature reviewed in this thesis revealed that all English universities with an OHS policy have established health and safety training programmes (see University of Birmingham, 2020:7-9; Aston University, 2021:14; University of Essex, 2021:20; University of Manchester, 2021:2; University of Cambridge, 2022:20-22).

The foregoing gives impetus to the aim of this study to develop a proactive and comprehensive OHS policy for CHAU.

6.4.8 Restrictive traditional rules

This challenge was unveiled by Key Informant TM2 when he was asked the following question: *What have been the challenges of managing health and safety at CHAU?* This informant revealed that managing risks associated with unrestricted entry into the University was challenging because the traditional authority did not allow CHAU to build a wall fence. He unveiled that CHAU was built on customary land under the Busoli Royal Establishment. In Zambia, customary land is owned and managed by traditional authorities (Republic of Zambia, 1995b). This means that the traditional rules take effect on all those occupying customary land. In the case of CHAU, the campus was built in the Soli Chiefdom under the rulership of Senior Chieftainess Nkomeshya Mukamambo II. Key Informant TM2 pointed out that CHAU had been able to build a wall fence around the University because of the foregoing. As discussed under Section 5.7.1.8, the absence of a wall fence had made the University susceptible to unauthorised entry by potential criminals.

This finding appears unusual as it does not seem to be prevalent among the universities whose OHS policies were reviewed by this study. Therefore, this study deduces that CHAU requires an OHS policy that will enable the University to establish alternative arrangements for restricting entry to the campus.

6.4.9 Absence of a counselling centre

When asked the following question: *What have been the challenges of managing health and safety at CHAU?* Key informants LM3 and TM3 pointed out the absence of a counselling centre at CHAU. For instance, Key Informant LM3 stated that the lack of a counselling centre made it difficult to offer support to students who were going through mental stress. She added that counselling requires confidentiality, which was hard to guarantee in the absence of a dedicated centre to offer counselling services. Similarly, Key Informant TM3 indicated that both staff and students at CHAU needed counselling services because of the amount of stress they experienced. He added that without a counselling centre, staff and students were exposed to unmitigated stress, which could be damaging to their health and safety in the long-run. The

foregoing clearly suggests that arrangements relating to the provision of counselling services should be established in the health and safety policy for CHAU.

6.4.10 Poor health and safety communication

This challenge was aptly elaborated by Key Informant MM5 when she was asked the following question: *What have been the challenges of managing health and safety at CHAU?* She uncovered that one of the major challenges of managing OHS at CHAU was poor health and safety communication. She explained that:

“The majority of the people at the University are not aware of the importance of health and safety. This makes it difficult to effectively manage health and safety because the people are unaware of it. The channels of communication relating to OHS are not clear. The Registrar’s office as well as the DOSA play health and safety functions at CHAU. The challenge is that we do not know which issues to report to which office.”

This finding reveals that CHAU does not have effective measures to communicate health and safety information to relevant stakeholders as recommended by international standards. It also shows that the management of OHS at CHAU lacks continual improvement (see ILO, 2009a:9; ISO, 2018:15-17). Therefore, CHAU should establish arrangements for communicating OHS information effectively. This has been done by universities that have established OHS policies. For example, universities in Canada with OHS policies have established communication arrangements such as website posts and provision of emergency contact details, among others (see Trent University, 2018; Carleton University, 2021; Capilano University, 2021; University of Victoria, 2021; Brock University, 2022, MacEwan University, 2017; University of Toronto, 2022; University of Calgary, 2022).

6.4.11 Lack of inspection and auditing

This challenge was pointed out by key informants ST1, ST2, ST3, and TM3 when responding to the following question: *What have been the challenges of managing health and safety at CHAU?* The aforementioned key informants revealed that before and after the COVID-19 pandemic, CHAU had not conducted any university-wide inspections and audits focusing on OHS. In addition, key informants ST1 and TM3 stated that they were not aware of any guidelines for conducting OHS inspections and audits at the University. In view of the foregoing, arrangements for health and safety inspection and auditing should be included in the OHS policy for CHAU. This has also been included in the OHS policy for Kwame Nkrumah University of Science and Technology (2018:4-5).

6.4.12 Lack of accident and incident investigation

This challenge was unveiled by key informants TM2, TM3, TM5, and MM5 when they were asked the following question: *What have been the challenges of managing health and safety at CHAU?* They stated that CHAU did not conduct accident and incident investigations. Consequently, key informants TM2 and TM3 revealed that CHAU did not have official records of accidents and incidents. Key Informant TM elaborated that there were no official records at the University related to statistics of accidents and incidents, their causes and effects, and possible counter measures. He added that the University did not have procedures and processes providing guidelines on how accident and incident investigations should be carried out. Key Informant TM3 supported the foregoing when he revealed that CHAU did not investigate to establish the causes of the fire that gutted a laboratory roof at the University.

Investigations are relevant as they help to establish the causes of accidents and incidents. This is important as it enables management to adopt appropriate corrective action, which in turn, promotes continual improvement (see Hughes & Ferrett, 2003:336). In view of the foregoing, it is obvious that CHAU needs an OHS policy that would enable the University to establish accident and incident investigation processes and procedures as is the case at universities with OHS policies. For example, Australian universities that have established OHS policies have put in place guidelines for accident and incident investigations (see Trent University, 2018; Carleton University, 2021; Capilano University, 2021; University of Victoria, 2021; University of Toronto, 2022; University of Calgary, 2022).

6.4.13 Lack of emergency procedures

When asked the following question: *What have been the challenges of managing health and safety at CHAU?* Key Informants TM4 and MM2 revealed that CHAU did not have any formal emergency procedures in place. For example, Key Informant MM2 pointed out that CHAU does not do any emergency drills such as fire drills. In addition, he indicated that CHAU does not even have a fire assembly point where people can assemble for a head count in case of an emergency. Corresponding, Key Informant TM4 held the view that the University was not prepared for any emergencies because none of its members were formally trained on how to respond to an emergency situation.

This finding reveals one of the consequences of an organisation not having an OHS policy. It also demonstrates the need for CHAU to have an OHS policy in place. Therefore, the OHS policy for CHAU should provide guidelines for emergency preparedness and response. This would make the management of OHS at CHAU analogous to that obtaining at universities with established OHS policies. For example, universities in England have established emergency procedures and

processes (see University of Huddersfield, 2018:15; Durham University, 2021:20-24; University of Essex, 2021:20; Staffordshire University, 2022:17).

6.4.14 Lack of a permanent health and safety committee

That challenge was pointed out by key informants TM2, MM5, ST1, ST2, ST3, and SR3 when responding to the following question: *What have been the challenges of managing health and safety at CHAU?* The key informants expressed concern at the lack of a permanent OHS committee at the University. For instance, key informants MM5, ST1, ST2, and ST3 pointed out that the only notable committee focusing on health matters that CHAU had was the COVID-19 Task Force, which ceased to exist the moment Covid-19 regulations were relaxed by the government. Additionally, Key Informant TM2 pointed out that, other than the aforementioned Task Force, the VC at CHAU had never appointed a permanent OHS committee at CHAU. As such, the University did not have a permanent OHS committee as required by the Occupational Health and Safety Act of 2010. From the foregoing, it can be deduced that CHAU falls short of health and safety legal requirements in Zambia. The foregoing demonstrates that CHAU needs an OHS committee. Thus, the University's OHS policy should provide for the establishment of an OHS committee. This would also make the management of OHS at CHAU similar to that prevailing at universities with OHS policies. For instance, Oregon State University (2021) in the USA has a number of OHS committees focusing on different hazards.

An OHS committee is critical to the management of OHS in an organisation because it allows management and workers to consult and collaborate among themselves. It creates a platform for workers to participate in the management of OHS. As such, it gives them the impetus to contribute more positively to OHS management in their organisation (see ILO, 2009a:6-7; ISO, 2018:10-11).

6.4.15 Unreviewed health and safety guidelines

This challenge was unveiled by key informants TM3, TM5, MM3, and MM5 when responding to the following question: *What have been the challenges of managing health and safety at CHAU?* The key informants stated that the existing guidelines for managing OHS at CHAU had never been reviewed. For instance, an interview with Key Informant TM5 established that the OHS guidelines in the School of Early Childhood Education that were presented in Table 6.2 of this thesis had never been reviewed since they were developed about ten years ago. Correspondingly, Key Informant TM3 stated that the laboratory rules in the School of Mathematics and Sciences as presented in Table 6.1 and Figure 6.7 in this thesis had never been reviewed from the time they were developed about a decade ago. This demonstrates that there has been no update on the OHS regulations that exist at CHAU. This does not conform to international best practice with regard to the review of OHS measures and policies. Generally, OHS policies and measures should be reviewed regularly to ensure that they are updated to accommodate changes

in regulations and nature of hazards (ISO, 2018). To enable CHAU to conform to best practices, it would be necessary to determine the frequency with which the University's OHS policy would be reviewed. This is also being practiced at universities with OHS policies. For instance, the OHS policy at the University of Lagos (2016:3) is reviewed at least once every two years. In South Africa, university OHS policies are reviewed at least every three years (NWU, 2019:1; Rhodes University, 2019:1).

6.4.16 Ineffective hazard identification and risk assessment

This challenge was stated by key informants MM5 and TM5 when they were asked the following question: *What have been the challenges of managing health and safety at CHAU?* They unearthed that hazard identification and risk assessments were in existence in the School of Early Childhood Studies. They stated that members of staff identified hazards and assessed risks related to cooking activities and playing equipment. However, these were only applicable to the aforesaid school. This shows that the rest of the University did not undertake hazard identification and risk assessments. This is below international standards that require all units of an organisation to conduct hazard identification and risk assessment (see ISO, 2018). Hazard identification and risk assessment are necessary as they allow organisations to take appropriate action to avert danger (see ILO, 2009a:11). In addition, it promotes continual improvement in OHS management. Given that CHAU does not conduct hazard identification and risk assessment, members of the University community are inadequately informed about the potential threats to their lives. In view of the foregoing, it can be deduced that CHAU requires an OHS policy that would enable the University to establish processes and procedures for identifying hazards and assessing risks. This would align CHAU to best practices adopted by other universities. For example, South African universities have established hazard identification and risk assessment processes and procedures (NWU, 2019:2; Rhodes University, 2019:3; UP, 2020:3).

6.4.17 Non-compliance with legal provisions and international standards

When asked the following question: *What have been the challenges of managing health and safety at CHAU?* Key informants LM1, MM6, TM2, and TM3 unveiled that CHAU struggled to manage OHS because it was not compliant with national legal provisions and international standards. Key informants LM1 and MM6 stated that OHS measures at CHAU were not guided by any legal provisions or international standards. They stated that common sense and not established requirements guided the OHS measures at CHAU. Congruently, Key Informant TM3 pointed out that the development of the laboratory rules in the School of Mathematics and Sciences was guided by the experience staff had acquired over the years in their profession. Key Informant TM2 added that CHAU had not formally adopted any legal provisions or international standards in its efforts to manage OHS. According to the ILO (2009a) and ISO (2018), efforts by

an organisation to manage OHS should be guided by applicable laws and international standards. Laws provide the minimum requirement for OHS management, whereas international standards seek to promote best practices. Therefore, given that CHAU is guided by neither, it entails that OHS management efforts at CHAU are below the bare minimum. This further entails that workers at the University are constantly exposed to unregulated hazards and risks. The foregoing provides strong impetus for CHAU to develop an OHS policy that considers the legal requirements and international standards. Other universities that have developed OHS policies have incorporated both legal requirements and international standards in their OHS management. For example, the OHS management at Durham University (2021) in the UK is guided by English OHS laws such as the Health and Safety at Work etc Act of 1974 as well as the world's standard on OHS, the ISO 45001:2018.

6.5 CHAPTER SUMMARY

This chapter has reviewed the status of OHS management at CHAU. It has done so by reviewing the OHS duties and responsibilities performed at various levels of CHAU's organisational structure. Additionally, it has established the various measures that have been implemented at the University to counter the hazards identified in the previous chapter. Furthermore, this chapter has reviewed the challenges that have been hampering the management of OHS at the University. This chapter is important to the study because it established the OHS profile for CHAU, which lays the foundation for the next chapter. The next chapter focuses on establishing the nature of the required OHS policy for CHAU.

CHAPTER 7 ANALYSIS OF THE REQUIRED OCCUPATIONAL HEALTH AND SAFETY POLICY FOR CHALIMBANA UNIVERSITY: EMPIRICAL EVIDENCE

7.1 INTRODUCTION

The preceding chapter focused on the fourth objective of this study which is “*to establish the current OHS profile for CHAU.*” In order to achieve the said objective, the chapter focused on establishing the nature of OHS management as it currently exists at CHAU. This is relevant to the study because, before developing an OHS policy for CHAU, it is imperative to understand what is already in place by establishing how the University is currently managing OHS. Furthermore, the chapter helped to determine the prevailing challenges of OHS at CHAU.

Given that this study is aimed at developing an OHS policy for CHAU, it was important to establish the required OHS policy for at CHAU. In view of the foregoing, this chapter focused on exploring what the informants believed would be the appropriate OHS policy for CHAU. To achieve its aim, this chapter has been divided into the following sections; introduction, informants’ views on the need and justification for developing an OHS policy for CHAU, informants’ views on the required OHS policy for CHAU, and chapter summary.

7.2 INFORMANTS’ VIEWS ON THE NEED FOR DEVELOPING AN OCCUPATIONAL HEALTH AND SAFETY POLICY FOR CHALIMBANA UNIVERSITY

The focus of this section was to establish whether or not the informants of the study believed that CHAU needed an OHS policy. To establish the foregoing, key informants internal to CHAU such as managers, representatives of staff, students and contractors, among others, as well as those external to CHAU such as representatives of relevant ministries, institutes, and departments were asked the following question: *Does CHAU need a health and safety policy and why?* The study ensured that various stakeholders were asked the said question to counter the assumptions of the elite theory that influential groups and individuals in organisations influence policy decisions in their favour (see Mills, 1956:3; Birkland, 2011:168; Dye, 2017:19). In addition, various stakeholders were consulted to conform to best practices such as ILO 2001 and ISO 2018 that recommend that the process of developing an enterprise level OHS policy should involve different stakeholders from the beginning (see ILO, 2001; ISO, 2018).

The findings of this study revealed that the key informants of the study were in favour of developing an OHS policy for CHAU. Key Informant TM2 aptly epitomised the foregoing when he retorted that:

“Chalimbana University needs a health and safety policy like yesterday.”

Similarly, Key Informant ML1 stated that although the law does not currently compel any organisation to have an OHS policy, it would be in the best interest of CHAU and its members, for the University to develop one. Furthermore, Key Informant HE1 indicated that while the HEA does not require universities to have an OHS policy, it would be easier for CHAU to meet the health and safety requirements that the HEA required universities to implement to promote a healthy and safe environment. For Key Informant OH1, an OHS policy would enable the University to collate all its OHS efforts into one document that could provide guidance for managing occupational hazards and risks.

The following are the justifications for developing an OHS policy for CHAU according to the informants of this study:

7.2.1 Establish university wide health and safety management

Key Informant MM1 stated that developing an OHS policy for CHAU would enable the University to establish a university wide approach to the management of occupational hazards and risks. He explained that:

“The policy is needed to ensure that there is a university wide standard of managing health and safety. Currently, the management of health and safety at CHAU is uncoordinated, and there is no uniform information pertaining to how the University community should prevent occupational hazards. Ever since COVID-19 restrictions were lifted, there has been gross relaxation in managing the spread of the virus.”

Additionally, Key Informant MM3, TM3, and TM7 posited that, without an OHS policy, the chaotic management of health and safety that had characterised CHAU for years would continue.

This finding is consistent with best practices in OHS that advocate for the establishment of an OHS policy as a means of establishing a holistic approach to health and safety management in an organisation (see ILO, 2009a:5-6; Hughes & Ferrett, 2016:51-52; American National Standards Institute [ANSI], 2017:5-6; ISO, 2018:9).

7.2.2 Enhanced public image

Key Informant TM2 stated that, among other things, CHAU needed to develop an OHS policy to enhance its public image, especially that it was still an emerging university. He noted that no parent would be motivated to take their children to a university that was perceived to be unsafe. The key informant added that, in view of the mass shootings that had taken place at universities in countries like the USA, parents were more concerned about the safety of their children than

ever before. This finding agrees with Berns (2022) and Merin (2022) who argue that developing an OHS policy has the potential to improve the image and reputation of an organisation.

7.2.3 Protect all members of the university community

Interviews with the informants established that an OHS policy was necessary for CHAU to protect all members of the University community from injuries and accidents. These include managers, staff, students, contractors, and students. For example, Key Informant TM8 posited that an OHS policy would help CHAU to come up with mechanisms for protecting everyone in the University from occupational injuries and illnesses. The foregoing was echoed by Key Informant HE1 who indicated that developing an OHS policy at CHAU would not only protect workers but students who spent most of their time inside the campus. Furthermore, Key Informant MM3 explained as follows:

“Those of us who work with animals need a health and safety policy to protect us. There are a lot of injuries and diseases one can suffer from by handling animals such as cattle. So, we need a policy to ensure that we are protected at all times.”

This finding conforms to the moral argument of health and safety management as presented under Section 2.5.5.1 of this thesis. The moral argument holds that employers have the moral responsibility of ensuring that everyone who comes in contact with their organisation is protected from any form of harm (see Hughes & Ferrett, 2016:4-5; Hämäläinen *et al.*, 2017:11; Fuller, 2019:6-7).

7.2.4 Adherence to legal and other requirements

An interview with Key Informants ED1, MM3, and ML1 revealed that developing an OHS policy for CHAU would enable the University to adhere to OHS legal requirements in Zambia. For example, Key Informant ML1 stated that a policy would help CHAU to effectively respond to the provisions of the Occupational Health and Safety Act of 2010 and Employment Code Act of 2019. Key Informant ED1 added that a policy would enable the University to be in conformity with the law that guided the operations of universities in Zambia, the Higher Education (amendment) Act of 2021. Furthermore, Key Informant MM3 said:

“We need a policy to meet regulatory requirements. The Health Professions Council of Zambia (HPCZ) came to CHAU for regular inspections and recommended that the University should develop an OHS policy.”

This finding is consistent with the legal argument of OHS management as discussed under section 2.5.5.2 of this thesis. The legal argument holds that an organisation’s OHS management should conform to its OHS legal mandate (see ILO, 2009a:6; Hughes & Ferrett, 2016:4-8; ISO, 2018:9).

7.2.5 Proactiveness in occupational health and safety management

Interviews with the informants revealed that developing an OHS policy would enable the University to proactively manage occupational hazards and risks. Among others, this justification was advanced by Key Informant TM3 who indicated that the University desperately needed an OHS policy to introduce a culture of managing hazards before accidents happen. This finding is consistent with best practices recommended by the ILO to manage health and safety proactively, rather than reactively (see ILO, 2009a:11).

7.2.6 Review of occupational health and safety measures

Interviews with Key Informants TM3, TM5, MM3, and MM5 unveiled that developing an OHS policy for CHAU would enable the University to regularly review its OHS measures. For example, Key Informant TM3 and MM3 unearthed that OHS measures in the School of Mathematics and Sciences had never been reviewed in the ten years that they had been in existence. He added that developing an OHS policy would enable the University to establish guidelines for reviewing OHS measures regularly. This finding conforms to best practices in OHS that recommend the frequent review of policies. For instance, Hughes and Ferrett (2016:52), argue that OHS policies should be reviewed regularly to keep up with changes in the nature of hazards, among others.

7.2.7 Workers' compensation

This justification was uncovered by Key Informant TM5 who was of the view that developing an OHS policy for CHAU would provide mechanisms for compensating workers who would get injured on duty. He stated that:

“A policy (on OHS) is urgently needed to provide guidelines on how those injured at work will be compensated. Currently, we are unaware about what happens when one gets ill or injured at work. The (OHS) policy should be established to provide the needed guidelines on compensation and related matters.”

This finding is consistent with the OHS legal requirements in Zambia. For example, the Workers' Compensation Act of 1999 provides for the compensation of workers who get injured at work, among others. Given that the said Act provides for compensation requirements, the OHS policy for CHAU should include it as one of the laws guiding the management of OHS at the University.

Table 7-1: Summary of informants' justifications for an occupational health and safety policy at Chalimbana University

S/N	JUSTIFICATION FOR AN OHS POLICY AT CHAU
1.	Establish university-wide OHS management
2.	Enhanced public image
3.	Protect all members of the University community
4.	Adherence to legal and other requirements
5.	Proactiveness in OHS management
6.	Review of OHS measures
7.	Workers' compensation

Source: Researcher's field data, 2022/2023

7.3 INFORMANTS' VIEWS ON THE REQUIRED OCCUPATIONAL HEALTH AND SAFETY POLICY FOR CHALIMBANA UNIVERSITY

Having established that the key informants were in support of CHAU developing an OHS policy in the previous section, it was imperative for the study to determine the informants' views on the appropriate OHS policy for CHAU. This section was necessitated by the institutional theory, group theory, elite theory, and rational choice theory. In line with the assumption of the institutional theory that policies for organisations are influenced by the decisions of the individuals working there, the study sought to determine the appropriate OHS policy for CHAU by interviewing key informants from within the University. In line with the group theory and elite theory that the outcome of public policies can be dominated by powerful individuals and groups, the study interviewed different categories of key informants within and outside the University to ensure that the development of an appropriate OHS policy for CHAU is based on the views of varied key informants. Furthermore, in line with the assumptions of the rational choice theory, which asserts that individuals make policy decisions that maximise their self-interests, the study interviewed a myriad of key informants to ensure triangulation and negate the possibility of adopting policy options that satisfy the desires of individuals at the expense of the vast majority at CHAU.

Thus, the aim of this section was to obtain the informants' views on the required OHS policy for CHAU. To achieve the said aim, the informants were asked to indicate what specific information they believed should be included in the OHS policy for CHAU under each of the three main components that would be used to design it, as illustrated in Table 3.1 under Section 3.8 of this study. Thus, this section discusses the views of the informants on each of the following key components: Policy statement; organisation of OHS; and arrangements for OHS.

7.3.1 INFORMANTS' VIEWS ON THE REQUIRED HEALTH AND SAFETY POLICY STATEMENT FOR CHALIMBANA UNIVERSITY

As discussed under Section 3.6.2.1 of this thesis, a policy statement generally has five components, and these are: purpose of the policy; scope of the policy; statement of intent; policy objectives; policy validation; and policy review period. To establish the required health and safety

policy statement for CHAU, the study interviewed CHAU managers, staff, and students' unions, as well as representatives from relevant government ministries, institutes, and departments. It was necessary to consult various stakeholders to conform to the PDCA model, which champions collaboration of various stakeholders in the formulation of OHS policies (see ILO, 2011a:3). In so doing, the study also diminished the possibility of one group of stakeholders dominating the policy decision making process as asserted by the elite and group theories. Below is a presentation of the informants' suggestions regarding each of the aforesaid five components of the health and safety policy statement.

7.3.1.1 Required purpose

To establish the required purpose, the key informants were asked the following question: *What would be the appropriate purpose for the CHAU OHS policy?* Overall, a two-pronged purpose was unveiled by the responses of the study. The first was embodied by the response from Key Informant MM1 who stated that the appropriate purpose of the OHS policy for CHAU should be to:

“Provide overall guidelines for managing safety and health at the University.”

The foregoing was supported by Key Informant ST1 who indicated that the purpose of the policy should be to provide guidelines on how each unit in the University could manage OHS. The second one was brought out by Key Informant TM2 who stated that the purpose of CHAU's OHS policy should be to demonstrate that management has finally decided to take a definitive step towards ensuring that hazards at the University are eliminated or minimised.

Table 7-2: Informants' views on the required purpose of the occupational health and safety policy for Chalimbana University

S/N	REQUIRED PURPOSE FOR CHAU'S OHS POLICY
1.	To provide overall guidelines for managing OHS at the University.
2.	To demonstrate management's decision to take a definitive step towards ensuring that hazards at the University are eliminated or minimised.

Source: Researcher's field data, 2022/2023

These findings agree with what is obtaining at other universities. For example, in part, the purpose of the OHS policy at Durham University is to demonstrate management's commitment to OHS management.

7.3.1.2 Required scope

To established the required scope for CHAU's OHS policy, key informants were asked the following question: *What would be the appropriate scope for the OHS policy for CHAU?* Their responses revealed that the policy should cover all individuals such as managers, workers,

students, infant learners, parents, visitors, and contractors. For example, Key Informant TM2 indicated that everyone who comes to the University such as managers, staff, students, parents and guardians, partners, and contractors should be covered by the policy. Key Informant SR1 added that the policy should provide coverage to all the students, whether on full-time or part-time studies.

In addition to coverage of individuals on university premises as discussed above, the informants believed that the policy should cover staff and students at any location outside the University where they would be carrying out official university responsibilities and duties. For example, Key Informant ST1 revealed that academic staff would need to be covered by the policy whenever they travelled for research, conferences, and teaching experience. This was supported by Key Informant MM1 who stated that the OHS policy should cover the entire University and other locations where staff and students would be performing official duties. He explained that:

“Students and staff who are working outside campus during their research and teaching practice need to be covered by the policy. The students go for teaching practice to schools such as Chalimbana Primary School, Mukamambo II Secondary School, and Chongwe Secondary School. Lecturers go in the field for research. Every year, they also go to observe student teachers at locations outside campus. They need to be protected there also.”

This finding corresponds to the standards adopted at other universities. For example, at Lupane University (2017:1) in Zimbabwe, the OHS policy covers staff and students on and off campus premises. This is also the case at Curtin University (2021:1) where the OHS policy *“applies to all Curtin University workers, students and visitors on Curtin University campuses and any other locations where activities are undertaken by Curtin University representatives or on behalf of the University.”*

Table 7-3: Informants’ views on the required scope for the occupational health and safety policy for Chalimbana University

CATEGORIES OF INDIVIDUALS TO BE COVERED BY OHS POLICY	LOCATIONS TO BE COVERED BY OHS POLICY
• Management • Academic staff • Non-academic staff • Full-time students (undergraduate and postgraduate) • Part-time students (undergraduate and postgraduate) • Infant learners (3 to 6 years) • Parents/guardians • Visitors • Contractors	• On and off campus locations where official university business is taking place

Source: Researcher’s field data, 2022/2023

7.3.1.3 Required statement of intent

As discussed under Section 3.6.2.1.3 of this thesis, a statement of intent identifies specific commitments that management intends to make in an attempt to safeguard the health and safety of all members in the organisation (Hughes & Hughes, 2008:47; McKinnon, 2020:55). To establish the required statement of intent for CHAU, the study asked top level managers at CHAU the following question: *What commitments would management be willing to make to promote health and safety at CHAU?* An analysis of their responses revealed that management at CHAU would be willing to commit to the following:

7.3.1.3.1 Integrated OHS management

Key Informant TM2 stated that the University management would commit to the integration of OHS management into overall university management. He indicated that this would enable the management of health and safety to become a part of everyday responsibilities for members of the University community.

This finding agrees with practices adopted at other universities. For example, the OHS policy at Lupane University (2017:2) in Zimbabwe seeks to establish an integrated management system to promote integrated management of OHS and other systems at the University. Similarly, the University of Victoria (2021:2) is *“committed to the integration of environmental health and safety planning, implementation, auditing, and reporting into core university management activities and into existing cycles of academic and service planning.”*

7.3.1.3.2 Allocation of adequate resources to OHS management

Key informants TM2, TM4, and TM7 unveiled that the management at CHAU were willing to allocate adequate financial and human resources to promote OHS management at the University. For instance, Key Informant TM2 and TM4 emphasised that the willingness of management to allocate financial and human resources to OHS management had been demonstrated during the COVID-19 pandemic.

This finding corresponds to what other universities are doing to show commitment to OHS management. For example, the management at Flinders University (2021:2) in Australia is committed to *“providing adequate human and financial resources to effectively manage health, safety and well-being.”* The finding also confirms to the assertion by best practices in OHS that providing adequate resources for OHS management is an indication that the management of an organisation is committed to OHS management (see Cockburn, 2012:18; Reese, 2017:37; Perez, 2019:49; McKinnon, 2020:73-74).

7.3.1.3.3 *Consultation with stakeholders*

Key Informant TM2, TM4, and TM7 retorted that the management at CHAU would demonstrate commitment to OHS by consulting and collaborating with relevant stakeholders such as staff and their representatives, and students and their representatives, among others. Key Informant TM2 stated that the office of the VC already had powers to create committees. As such, the VC would be willing to show commitment to OHS management at the University by using the said powers to create an OHS committee.

This finding is in line with legal requirements in Zambia. For instance, the Occupational Health and Safety Act of 2010 requires employers with ten or more workers to establish a heterogeneous health and safety committee. Furthermore, consultation in OHS management through health and safety committees complies with OHS best practices that have been adopted at other universities. For example, the University of Canberra (2021:1) in Australia is committed to continuous consultation with staff, students, visitors, and partner organisations in maintaining health and safety at the University campus. Furthermore, NWU (2019:4) is committed “*to consult and communicate with employees, students and stakeholders on occupational health and safety issues.*”

7.3.1.3.4 *Developing OHS training programmes*

Interviews with key informants revealed that the University management would be willing to develop OHS training programmes aimed at equipping members of the University community with knowledge on how to promote OHS at the University. For instance, Key Informant TM2, TM3, and TM4 stated that willingness to OHS management at CHAU would also be shown through the development of OHS training programmes focusing on key issues such as emergency preparedness and response, and accident investigation, among others.

This finding corresponds to the legal provisions in the Factories Act of 1967. Additionally, it agrees with standards adopted at other universities. For example, NWU (2019:1) is committed to “*educate and train the workforce on risk management, and occupational health and safety principles.*”

7.3.1.3.5 *Building a robust health and safety culture*

Key Informant TM2 and TM4 stated that it was the responsibility of top level manager to inspire and build a positive OHS culture at the University. As such, Key Informant TM2 indicated that management would be more than willing to commit to building a robust health and safety culture throughout the entire University.

This finding corresponds with international best practices in OHS management (see ILO, 2009a:6; ISO, 2018:9). Furthermore, the finding conforms with what other universities have committed to. For instance, the Chinese University of Hong Kong (2014:1) is committed to establishing a continuous OHS culture at its university campus.

7.3.1.3.6 Meeting legal requirements

This was brought out by Key Informants TM2, TM3, TM5, and TM7 who revealed that management at the University would be willing to meet the requirements of the following laws: Factories Act of 1967; Occupational Health and Safety Act of 2010; and Higher Education (amendment) Act of 2021, among others.

This finding agrees with practices at other universities. For example, the University of Melbourne (2021:1) in Australia is committed to promoting the highest standard of OHS management by complying with legal requirements and international standards.

7.3.1.3.7 Demonstrating leadership in health and safety

Interviews with the informants of this study revealed that top management at CHAU was committed to providing leadership in managing health and safety at the University. It was established that this was important as it would set the tone for how others in the University conduct themselves in relation to OHS.

This finding is in line with best practices in OHS management that require top management to be committed to providing leadership, without which, OHS management is likely to be ineffective (see ILO, 2009a:6; Cockburn, 2012:18; Hughes & Ferrett, 2016:52; Reese, 2017:37; ISO, 2018:9-10; McKinnon, 2020:55). Furthermore, top managers at other universities have also shown commitment to OHS by providing leadership in the area of health and safety. At universities in the USA, for example, top managers are committed to providing leadership in health and safety (see (Binghamton University, 2021; Oregon State University, 2021; Utah State University, 2022).

7.3.1.4 Required policy objectives

To establish the required objectives of the OHS policy for CHAU, key informants were asked the following question: *What would be the appropriate OHS objectives for CHAU?* An analysis of the responses of the informants established that the key informants believed that the appropriate OHS objectives for CHAU should be as presented in Table 7.4 below.

Table 7-4: Informants' views on the required occupational health and safety objectives for Chalimbana University

S/N	REQUIRED OBJECTIVES
1.	To establish relevant and appropriate guidelines for protecting staff, students, infant learners, visitors, and contractors.
2.	To ensure that the University is ever-ready to respond to occupational hazards and risks.
3.	To improve the delivery of education through healthy and safe teaching, learning, and research.
4.	To promote a positive health and safety culture at CHAU.
5.	To manage hazards and risks and minimise the occurrence of accidents and illnesses at the University.
6.	To comply with national OHS laws.
7.	To allocate adequate resources for health and safety management.
8.	To promote consultation and collaboration among various stakeholders in managing health and safety at CHAU.
9.	To integrate health and safety in everyday activities at CHAU

Source: Researcher's field data, 2022/2023

The findings presented in Table 7.4 above are in conformity with the objectives stated in OHS policies for other universities. For example, the objectives of the health and safety policy for Lupane University (2017:1) in Zimbabwe include adherence to legal requirements and consultation, and collaboration with key stakeholders. At the University of Essex (2021:3), OHS objectives include embedding OHS in everything the University does.

7.3.1.5 Required policy validation

Under Section 3.6.2.1.5 of this thesis, it was established that an enterprise level OHS policy should be validated for it to take effect. To validate an OHS policy, the senior most officer in an organisation should append his/her signature on the policy and indicate its effective date (see Taylor *et al.*, 2004:65; Stranks, 2006:197; Hughes & Hughes, 2008:47; Hughes & Ferrett, 2016:51; Reese, 2016:425). To establish who should approve the OHS policy for CHAU, the key informants were asked the following question: *Who would be responsible for approving the OHS policy for CHAU?*

Interviews with key informants of this study revealed that the informants unanimously indicated that the VC at CHAU should be responsible for validating the University's OHS policy. For example, Key Informant TM4 stated that the VC was responsible for signing and validating all the policies at the University. As such, he should be the one to sign on the OHS policy. Correspondingly, TM2 indicated as the highest ranking officer at CHAU, the VC should validate the OHS policy for the University. Additionally, Key Informant LM2, LM3, and MM6 stated that the VC is ultimately accountable for the management of the entire University. As such, he should be the one to validate the policy so that he is ultimately accountable for OHS at the University. Furthermore, Key Informant SR1 explained that:

“The Vice-Chancellor is the head of this University. There is no one else here (at CHAU) with more authority than him. So, I believe it must be him to sign the (policy) document.”

This finding conforms to best practices in OHS that require the senior most officers in organisations to validate an OHS policy (see Hughes & Ferrett, 2016:51; Reese, 2016:425). Furthermore, it aligns with practices adopted at universities that have developed an OHS policy. For instance, the OHS policy for Huddersfield University (2018:2) in England was validated by the University’s VC.

7.3.1.6 Required review guidelines

Under Section 3.6.2.1.6, this thesis revealed that best practices in OHS management require a health and safety policy to be reviewed regularly. This is to enable the measures against OHS to be updated in line with changes in the nature of hazards and relevant OHS legislation, among others. To establish the required guidelines for the review of OHS guidelines at CHAU, the key informants were asked the following two questions: *How often would the CHAU OHS policy need to be reviewed? In your opinion, what factors would necessitate a review of the CHAU OHS policy?*

The responses of the key informants of this study revealed that the OHS policy for CHAU should be reviewed whenever it is necessary. For example, Key Informant ML1 stated that the law in Zambia did not provide guidelines pertaining to the frequency with which an OHS policy should be reviewed. He added that the common practice in the country was for organisations to review their policies whenever need arose. This view was echoed by Key Informant TM5 who stated that the review of the policy should be determined by changes in some key factors. The following are the factors that the informants believed should necessitate the review of CHAU’s OHS policy:

7.3.1.6.1 Changes in legal requirements

Informants believed that when changes in legal requirements occur, the OHS policy for CHAU should be reviewed to respond to the amendments. For instance, Key Informant ML1 indicated that changes in laws would require a review of policy. This view was also held by the Key Informant TM5 who stated that legislative changes should trigger a review of CHAU’s OHS policy because changes in laws would outlaw some policy provisions.

7.3.1.6.2 Changes in the nature of hazards

The key informants of this study believed that the OHS policy for CHAU needed to be reviewed whenever there were changes in the nature of hazards at the University. For example, Key Informant MM3 stated that due to changes in biotechnology, chemicals used for agricultural

activities were also changing rapidly. As such, there would be need to review the policy whenever there were changes in chemicals.

The foregoing notwithstanding, interviews with informants of this study revealed that, although the modus operandi of reviewing the policy should be guided by the abovementioned changes, there was need to have a fixed review period. This would still necessitate the review of the policy in an event that the said changes did not occur. In view of the foregoing, suggestions provided by the informants show that they believe the OHS policy for CHAU should be reviewed at least once every three years. For instance, Key Informant ML1 stated that:

“The standard practice in Zambia is that an occupational health and safety policy should be reviewed at least once in three years.”

The views of Key Informant ML1 were repeated by Key Informant MM5 who explained that CHAU’s OHS policy would need to be reviewed:

“Every after three years if no major changes pertaining to OHS information take place.”

Additionally, although Key Informant MM6 would prefer the policy to be reviewed annually, she noted that it was unlikely that changes to OHS would be so rampant to necessitate a yearly review. As such, she suggested that, realistically, the policy needed to be reviewed every after three years. Correspondingly, Key Informant MM2 posited that, while it is evident that there are hazards at CHAU, it is unlikely that these hazards would be changing so rapidly to require a yearly review of the OHS policy. He proposed a review of at least once after three years.

These findings above are in conformity with best practices in OHS management. For example, FFVA Mutual (2022) posits that the review of an OHS policy should be determined by a variety of factors including, but not limited to, changes in legal requirements, hazards and risks, OHS opportunities, and OHS information. Furthermore, the review of literature found that the review period for most OHS policies for universities range between one and five years. For instance, in Canada, universities reviewed their OHS policies annually as required by legal provisions (see Brock University, 2022). In Australia, the review period for university OHS policies ranges from one to five years (see Flinders University, 2021:4; Australian National University (2022:3). In Nigeria, OHS policies for universities are reviewed once in two years (see University of Lagos, 2016:3). In South Africa, the review of OHS policies for universities is once every three years (see NWU, 2019:1; Rhodes University, 2019:1).

7.3.2 INFORMANTS' VIEWS ON THE REQUIRED ORGANISATION OF HEALTH AND SAFETY AT CHALIMBANA UNIVERSITY

Under Section 3.6.2.2 of this thesis, it was established that the essence of the organisation of health and safety component in an OHS policy is to allocate responsibilities to various levels of the organisational structure. Under Section 6.2, this thesis identified and revealed the prevailing organisation of health and safety responsibilities at CHAU. This section (section 7.3.2) discusses the required allocation of OHS responsibilities at CHAU. To establish the foregoing, the study asked the key informants from CHAU questions relating to the required OHS responsibilities. Their responses established that the required organisation of OHS at CHAU would be as follows:

7.3.2.1 Required health and safety responsibilities for the Council

At the time of collecting data, the Council at CHAU had not yet been appointed. As such, top level managers were asked the following question: *What would be the appropriate OHS responsibilities for the CHAU Council once appointed?* Interviews with Key Informants TM2, TM3, TM4, TM5, and TM7 uncovered the following as the required OHS responsibilities for the CHAU Council:

Provision of OHS strategic direction: Key Informants TM2, TM3, TM4, TM5, and TM7 all stated that when appointed, Council would become the custodian of CHAU. As such, the Council would be required to provide strategic direction to the management of the entire University, including the management of OHS. This finding is critical as it conforms to the findings from other universities. For example, universities in the UAE such as UAEU (2015) and Khalifa University (2018) have OHS policies that require their Councils to provide overall OHS direction.

Provision of adequate resources: Key Informants TM2, TM4, and TM7 stated that the University Council would be required to secure and provide adequate resources for CHAU. For instance, the said Key Informants pointed out that the Council would not only need to provide financial resources, but human resources as well.

The foregoing is similar to what is happening at other universities. For example, in England, universities are governed by a board of governors that is tasked with the responsibility to provide adequate resources for OHS management (see University of Huddersfield, 2018:3; University of Essex, 2021:11; University of Manchester, 2021:4; Staffordshire University, 2022:3-4).

Spearheading the development of OHS policies and systems: Interviews with key informants from CHAU revealed that the Council would be required to initiate and spearhead the development of OHS policies and related management systems. For example, Key Informants TM2, TM4, and TM7 that the Council would have to proactively develop other policies to support the implementation of the University's OHS policy.

This finding is in line with the responsibilities of university governing bodies at other universities. In Australia, for example, university governing bodies are responsible for ensuring that OHS policies are developed and implemented (see University of Canberra Act of 1989; University of Wollongong Act of 1989, Australian National University Act of 1991; University of Melbourne Act of 2009; Federation University Australia Act of 2010).

Adherence to legal provisions: Interviews with key informants of the study revealed that the Council would have to be responsible for ensuring that all the University's legal and other requirements were met. For example, Key Informant TM2 pointed out that as a governing body for the University, the onus was on the Council to ensure that CHAU's legal and other regulations are adhered to.

This finding is related to what is already obtaining at other universities. For example, at the University of Lagos (2016:2) in Nigeria, the University's governing body is responsible for ensuring that the University conforms to all health and safety laws and regulations.

7.3.2.2 Required health and safety responsibilities of the Vice-Chancellor

To establish the required OHS responsibilities of the VC, key informants at CHAU were asked the following question: *What would be the required OHS responsibilities for the VC?* A review of the responses of the informants revealed that the key informants did not bring out any additional OHS responsibilities beyond those that the VC was already performing as discussed under Section 6.2.1 of this thesis. For example, Key Informants TM2 and TM4 insisted that there was no need to add to the OHS responsibilities that the VC was already performing. Key Informant TM4 stated that all that was needed was to formally incorporate the VC's health and safety responsibilities into his daily functions. Furthermore, Key Informant TM2 stated that the success achieved during the COVID-19 pandemic was evident enough that the VC's OHS responsibilities were adequate.

7.3.2.3 Required health and safety responsibilities for the Deputy Vice-Chancellors at Chalimbana University

To establish any additional OHS responsibilities that the two DVCs at CHAU would be required to perform, the study asked top level managers at CHAU the following question? *What would be the appropriate OHS responsibilities for the DVCs at CHAU?* The findings of the study show that the informants believed that the two DVCs would have to continue playing a supporting role to the VC as discussed under Section 6.2.2 of this thesis. For example, Key Informants TM2, TM4, TM5, and TM8 stated that the two DVCs at CHAU needed to work closely with the VC when creating OHS committees and securing funds for OHS, among others. Key Informant TM8 narrated that the status quo had to continue to make it easier for the VC to delegate any OHS responsibility to the DVCs.

7.3.2.4 Required health and safety responsibilities for the Registrar

Under Section 6.2.3, this study discussed the current OHS responsibilities being performed by the Registrar. To establish if there are any additional OHS responsibilities that the Registrar would be required to perform, this study asked the key informants from CHAU the following question: *What would be the required OHS responsibilities for the Registrar at CHAU?* The findings revealed that, among the submissions made by the informants, there were no additional OHS responsibilities beyond what the Registrar was currently performing. However, Key Informants TM2, TM3, TM4, and TM7 suggested that the OHS responsibilities for the Registrar's office needed to be performed by a specific individual whose main role would be to coordinate OHS management at CHAU. For example, Key Informant TM2 posited that there was need to appoint an OHS coordinator for CHAU under the Registrar's office from the already existing staff. He unveiled that creating a separate unit or department dedicated to OHS at CHAU would be challenging because of budget constraints and administrative issues such as the lack of the University Council. Thus, he insisted that the easiest option would be to appoint an OHS coordinator under the office of the Registrar. Key Informant TM2 added that the said OHS coordinator would also be required to facilitate transportation arrangements at CHAU. The foregoing was supported by Key informants TM3 and TM5 who revealed that the current organisation of OHS at CHAU was confusing because the DOSA also performed some OHS functions. As such, they retorted that having an officer dedicated to OHS management at the University would negate the said confusion.

7.3.2.5 Required health and safety responsibilities for top level managers

Under this section, the study sought to establish if there were any additional OHS responsibilities that top level managers needed to perform beyond those they were currently performing as discussed under Section 6.2.4 of this thesis. To this effect, top level managers were asked the following question: *What would be the required OHS responsibilities for top level managers at CHAU?* The findings of this study established that top level managers at CHAU believed that their current responsibilities were sufficient. Consequently, there were no additional health and safety responsibilities that were brought out.

However, Key Informants TM1, TM2, TM3, TM4, and TM5 revealed that the major problem was that their OHS responsibilities were not performed on a continuous basis. As such, they indicated that there was need for their OHS responsibilities to be formally allocated to them. For instance, Key Informants TM2, TM3, and TM5 stated that the modus operandi of officials in the University performing OHS functions only when there was an emergency such as fire and COVID-19 needed to come to an end.

7.3.2.6 Required health and safety responsibilities of the occupational health and safety committee

To establish the required OHS responsibilities of the OHS committee at CHAU, the key informants were asked the following question: *What would be the required health and safety responsibilities for the OHS committee at CHAU?* Key Informant ML1 stated that establishing an OHS committee for any organisation with ten or more workers was a legal requirement provided by the Occupational Health and Safety Act of 2010. He added that there was no need for CHAU to reinvent the wheel by identifying OHS responsibilities for its OHS committee as the responsibilities for any organisation's OHS committee were already stipulated by the aforementioned Act. In view of the foregoing, the study adopted the responsibilities stipulated in the Occupational Health and Safety Act of 2010 as the required responsibilities for the CHAU OHS committee. Therefore, the required health and safety responsibilities for the OHS committee at CHAU would be to:

- Promote cooperation among managers, staff, and students in achieving and maintaining a healthy and safe working and learning conditions;
- Share information about occupational health, safety and welfare with managers, staff, and students;
- Investigate and resolve any matter that may be a risk to the health and safety of managers, staff, students, infant learners, visitors, and contractors;
- Review the measures taken on the health and safety of managers, staff, students, infant learners, visitors, and contractors; and
- Formulate, review, and disseminate to the managers, staff, students, visitors, and contractors the standards, rules and procedures relating to health and safety to be conducted at the University.

7.3.2.7 Required health and safety responsibilities for middle level managers

To obtain any additional OHS responsibilities that middle level managers would be required to perform, middle level managers at CHAU were asked the following question: *What would be the required health and safety responsibilities for middle level managers at CHAU?* A review of their responses revealed that the middle level managers believed they were already performing adequate OHS responsibilities. Just like top level managers, the middle level managers pointed out that there was need to formalise the OHS responsibilities they performed during the COVID-19 pandemic such as providing OHS information to their subordinates, monitoring adherence to OHS regulations, and providing regular OHS reports to executive managers. For instance, Key Informant MM2 indicated that there was need to formalise the OHS responsibilities they played during the pandemic. He posited that this would make it easier for superiors to delegate and supervise their subordinates. In addition, Key Informant MM1 stated that, to perform their responsibilities effectively, HODs needed to have clearly stipulated and formalised OHS

responsibilities. The key informant contended that this would negate guesswork and haphazardness in the manner HODs executed their OHS responsibilities. Further to that, Key Informant MM3 stated that without the OHS responsibilities being formalised, they would not have the legitimacy to perform them.

7.3.2.8 Required health and safety responsibilities for the University Caretaker

To establish the required responsibilities of the University Caretaker, key informants were asked the following question: *What would be the required health and safety responsibilities of the University Caretaker?* An analysis of the responses of the informants in this study revealed that the University Caretaker should not have any additional responsibilities as the current ones were sufficient. For example, Key Informant LM4 indicated that the only thing that needed to be done was to formally link the Caretaker's responsibilities to OHS management at the University. He unveiled that there was currently no direct link between the responsibilities performed by the Caretaker and OHS management. Additionally, Key Informant TM2 believed that officially requiring the Caretaker to perform OHS responsibilities would ensure that the maintenance and repair of University property was anchored on health and safety management.

7.3.2.9 Required health and safety responsibilities of the University Matron

In an attempt to establish the required health and safety responsibilities for the University Matron, key informants at CHAU were asked the following question: *What would be the required health and safety responsibilities of the University Matron at CHAU?* According to the informants in this study, the Matron did not need any additional OHS responsibilities to the ones identified under Section 6.2.8 of this thesis. To this effect, Key Informants TM2, TM3, TM4, TM, and LM3 insisted that the Matron should continue performing the responsibilities that she was performing such as sensitising students on sexual health, providing counselling services to students, taking students with serious ailments to the clinic, and inspecting and monitoring hygiene levels in students' hostels.

7.3.2.10 Required health and safety responsibilities for academic and administrative staff

To establish whether or not there were any additional health and safety responsibilities that staff at CHAU needed to perform, the researcher asked managers and representatives of staff the following question: *What would be the required OHS responsibilities for staff at CHAU?* An analysis of their responses showed that staff at CHAU were already performing sufficient OHS responsibilities. For example, Key Informants MM3, MM5, LM1, LM2, LM3, LM5, ST1, ST2, ST3 stated that workers should continue with the responsibilities they performed during the COVID-19 pandemic. Furthermore, the informants pointed out that, in order for the staff to effectively

contribute to OHS management at CHAU, their responsibilities needed to be formalised and incorporated in their job descriptions.

7.3.2.11 Required health and safety responsibilities for students

The researcher sought to establish any additional health and safety responsibilities that students would be required to perform at CHAU. In doing so, key informants were asked the following question: *What would be the required health and safety responsibilities for students at CHAU?* Interviews with key informants revealed that students did not need to perform any additional responsibilities. For example, Key Informants SR1 SR2, and SR3 retorted that students needed to continue adhering to University regulations. However, they stated that most of the students were unaware of their OHS responsibilities. As such, the informants noted that, for students to effectively perform their OHS responsibilities, they should be adequately informed about them.

7.3.2.12 Required health and safety responsibilities for Chalimbana University police post

To establish if the CHAU police post needed to perform additional OHS responsibilities, key informants were asked the following question: *What would be the required health and safety responsibilities for the CHAU police post?* The responses of the informants in this study established that the responsibilities currently performed by the police post were sufficient enough to contribute positively to enhancing security at the University. For example, Key Informant ZP1 stated that:

“What we are doing is enough. We just need more police officers to do the job properly.”

7.3.2.13 Required health and safety responsibilities for visitors

To establish if visitors at CHAU were required to perform more health and safety responsibilities other than those discussed under Section 6.2.12 of this thesis, key informants were asked the following question: *What would be the required health and safety responsibilities for visitors at CHAU?* Key Informants TM2, TM3, MM1, and MM5 stated that visitors needed to continue adhering to OHS regulations. Key Informants MM1 and MM3 revealed that there was generally nothing more that visitors would be required to do beyond adhering to the University's OHS regulations. Subsequently, TM2 stated that there was need to establish formal guidelines to guide the conduct of visitors at CHAU as the University currently did not have any.

7.3.2.14 Required health and safety responsibilities for contractors

In answering the following question: *What would be the required health and safety responsibilities for contractors at CHAU?* Key informants from CHAU revealed that the responsibilities that were currently performed by contractors were sufficient. Key Informants CC1, TM2, and TM5 stated that adhering to CHAU's OHS regulations was essentially what was required of contractors. Furthermore, Key Informant CC1 stated that it would be very helpful to contractors if CHAU provided them with the University's OHS requirements.

7.3.3 INFORMANTS' VIEWS ON THE REQUIRED ARRANGEMENTS FOR OCCUPATIONAL HEALTH AND SAFETY AT CHALIMBANA UNIVERSITY

Under Section 3.6.2.3, this study discussed the third component of an enterprise level OHS policy, which is the arrangements for OHS. The section established that the said section of an enterprise level OHS policy provides processes and procedures that show how the policy objectives and commitments, among others, will be achieved. Additionally, it established that the processes and procedures should be compliant with legal and other requirements and in line with the prevailing circumstances in the organisation pertaining to, among others, hazards and risks.

Thus, this section (Section 7.3.3) sought to establish the required arrangements for OHS management at CHAU from the perspective of the informants. This information was important as it helped the study to collate the views of the informants with international standards, best practices, and Zambian laws to establish an appropriate OHS policy for CHAU.

To establish the required arrangements for managing OHS at CHAU, the researcher asked the informants the following questions: *In view of the hazards and risks prevalent at CHAU, what would be the required arrangements for managing health and safety?* An analysis of the responses of the informants revealed that the key informants suggested the following arrangements for managing OHS at CHAU:

7.3.3.1 Adherence to legal and regulative framework

Key Informant ML1 contended that for any organisation to effectively manage OHS, it would need to adhere to relevant regulations. Similarly, Key Informants HE1, OH1, and TM5 stated that it would be relevant for the CHAU OHS policy to adhere national laws and regulations, among others. Generally, the responses of the informants in this study indicated that the OHS policy for CHAU would need to adhere to the following legal and other requirements:

Occupational Health and Safety Act of 2010: Key Informant ML1 and OH1 stated that this was the primary law that guided OHS management in all organisations in Zambia. They added that

the said Act provided responsibilities for workers and employers. Furthermore, Key Informant ML1 stated that the Act provided for the establishment of OHS committees and their functions.

Employment Code Act of 2019: Key Informant ML1 indicated that the OHS policy would need to adhere to the provisions of the Employment Code Act of 2019, which provided for the establishment of mechanisms aimed at promoting sanitation at work and prohibition of abnormal working hours.

Factories Act of 1967: An interview with Key Informant ML1 established that, although CHAU was not a factory, work processes in units such as the kitchen, electrical department, and transportation would have to be guided by the Factories Act of 1967.

Workers' Compensation Act of 1999: The informants in this study stated that the OHS policy for CHAU would have to adhere to the provisions of the Workers' Compensation Act of 1999. For example, Key Informant TM5 indicated that members of staff were oblivious to their fate in the event of an accident while working. As such, there would be need for the policy to be guided by the abovementioned Act.

HEA Audit of Conventional and Dual Colleges Tool of 2020: The study's informants indicated that other than laws, there were certain regulations that needed to guide the OHS policy for CHAU. For instance, Key Informant HE1 stated that all universities in Zambia were required to comply with HEA regulations such as the Audit of Conventional and Dual Colleges Tool of 2020. He indicated that, although the Tool did not require universities to establish an OHS policy, it required them to put in place OHS measures such as fire extinguishers and adequate sanitation, among other things.

The foregoing finding is not unique to CHAU. This is because OHS policies for other universities have also been guided by national laws and regulations. For example, OHS policies for universities in South Africa are mainly guided by the Occupational Health and Safety Act No. 85 of 1993 (see NWU, 2019:4; Rhodes University, 2019:1; UCT, 2020:1; UP, 2020:3).

7.3.3.2 Integrating occupational health and safety into overall management

Key Informants TM2 and TM4 indicated that to effectively manage OHS at CHAU, it would need to be integrated into the overall management of the University to ensure that it was an everyday activity. Key Informant TM2 stated that this would be an improvement from the current situation where individuals only performed OHS responsibilities when need arose. The responses of the key informants revealed that, to effectively integrate OHS into overall management, the University would need to incorporate it into its strategic plan, job descriptions, and rules and regulations. Additionally, Key Informant ML1 indicated that the easiest way for CHAU to integrate OHS into

overall management would be to establish a management system that promoted integrated management.

This finding agrees with what obtained at universities with OHS policies. For example, universities in England such as Durham University (2021:2-3) and the University of Cambridge (2022:25) were guided by the PDCA model. Having an OHS policy that is guided by the PDCA model would be beneficial to CHAU as it would make it easier for the University to integrate OHS with other systems that use the said model (see Taylor, *et al.*, 2004:544-545; Kymal, *et al.*, 2015:13-15; Manuele, 2019:661).

7.3.3.3 Hazard identification and risk assessment

Responses from the participants in this study uncovered that the key informants believed that CHAU needed to establish arrangements to guide hazard identification and risk assessment at the University. For example, Key Informant ML1 indicated that identifying hazards and assessing risks was critical to OHS management as it would allow CHAU to proactively manage hazards. Correspondingly, Key Informants MM5 and TM5 stated that CHAU would need to establish comprehensive hazard identification guidelines, which it currently lacked. Furthermore, Key Informant FD1 added that:

“That University has lost property to fire before. It is important for them to prevent that from happening again by identifying the fire hazards and arresting them before another fire breaks out.”

This finding is reminiscent of best practices in OHS management. For instance, the ISO (2018:12) recommends that organisations should have hazard identification and risk assessment procedures in place in order to protect their workers from work-related injuries and illnesses. Furthermore, this finding conforms to OHS arrangements existing at universities with OHS policies. For example, the OHS policy for Kwame Nkrumah University of Science and Technology (2018:9) in Ghana has arrangements for risk assessments. Furthermore, the University of Huddersfield (2018) in England also has risk assessment procedures.

7.3.3.4 Collaboration and consultation

An analysis of the responses of the participants in this study illustrated that CHAU would need arrangements for promoting collaboration and consultation in managing OHS at the University. Key Informants TM1, TM2, MM3, MM5, ML1, and HE1 indicated that CHAU would need to establish an OHS committee to ensure collaboration and consultation among managers, workers, and students in OHS management at the University. Key informants ML1 and HE1 insisted that the University would have to establish its OHS policy using the provisions of the Occupational

Health and Safety Act of 2010. The foregoing was supported by Key Informant MM5 who indicated that the VC would have to create a permanent OHS committee and not an Ad hoc one as was the case during the COVID-19 pandemic. Similarly, Key Informant TM2 stated that to enhance collaboration and consultation in OHS management at CHAU, the management was willing to establish a heterogeneous OHS committee. Key Informant ML1 added that, in order for the committee to be effective, immunity would have to be given to the health and safety committee members as required by law. He explained that:

“If a committee member, while performing his/her responsibilities, challenges a superior who is forcing employees to undertake risky work, he/she should not be reprimanded.”

This finding is important because it would enable CHAU to conform to the legal provisions by the Occupational Health and Safety Act of 2010, which requires organisations with ten or more employees to establish an OHS committee. Additionally, developing an OHS committee at CHAU would make OHS management at the University to be in conformity with best practices adopted at universities that have already established OHS policies such as University of Toronto (2022) and University of Calgary (2022), University of Hong Kong (2019) in Hong Kong, and the Rhodes University (2019:8-9) in South Africa.

7.3.3.5 Occupational health and safety communication

Interactions with informants in this study through interviews revealed that the OHS policy for CHAU should establish arrangements for effective OHS communication at the University. Key Informant TM3 stated that one strategy to enhance OHS communication would be posting notices around the University premises. He noted that this strategy had been used during the COVID-19 pandemic as illustrated in Figure 7.1 below and could be adopted under the policy. In addition, Key Informant TM7 noted that, due to the proliferation of the usage of information and communication technologies (ICTs) among the older and younger generations, management would have to use social media to effectively disseminate OHS information to staff, students, visitors, contractors, and other stakeholders. Key Informant TM3 added to the foregoing by stating that social media applications such as Facebook, WhatsApp, and Twitter could be effective because the majority of the members of the University community were using at least one of them. Furthermore, Key Informant MM2 stated that it would be necessary to regularly update the website for CHAU to include OHS information. He stated that the website would provide a wider and broader reach in terms of access to OHS information at the University by various stakeholders. Key Informant TM4 also weighed in by stating that it would be necessary to attach the University's OHS policy to the students' acceptance letters.



Figure 7-1: COVID-19 notice along a corridor at Chalimbana University (Source: Researcher's archive, 2022/2023)

Arrangements for effective OHS communication would not be unique to CHAU. This is because a number of universities that have established OHS policies have put in place arrangements to ensure that internal and external stakeholders have easy access to OHS information. For example, the University of Hong Kong (2019) uses its website to communicate OHS information including the OHS policy itself. Furthermore, the finding would enable CHAU to be in conformity with international best practices that recommend the use of appropriate methods to ensure that an organisation's internal and external stakeholders are duly informed (ILO, 2009a:9; ISO, 2018:15-17). In addition, this finding would enable the OHS policy for CHAU to be in conformity with the law in Zambia. For example, the Occupational Health and Safety Act of 2010 requires organisations to ensure that their OHS policies are conspicuous and easily accessible.

7.3.3.6 Occupational health and safety training

Following an analysis of the responses of the informants in this study, it was revealed that the key informants were convinced that CHAU should provide arrangements for OHS training. Submissions made by Key Informants TM2, TM4, MM1, MM2, ST1, and LM1 brought out the following mechanisms that CHAU would use to provide OHS training to the University community:

- OHS orientation of all new workers and students;
- OHS sensitisation programmes for all workers and students whenever need arises;
- Incorporating OHS in all the study programmes for students;

- Regular physical or virtual training on the use of fire extinguishers; and
- First aid training for all staff and students.

Arrangements for OHS training would enable CHAU to conform to international best practices, which recommend that organisations should ensure that all relevant stakeholders in the organisation are trained continuously on various aspects of OHS management (ILO, 200a:8; ISO, 2018:15). Additionally, this finding would make CHAU conform to the legal provisions in Zambia. For instance, the Factories Act of 1967 requires employers to provide OHS training to all new employees.

7.3.3.7 Emergency preparedness and response

The informants in this study indicated that CHAU needed arrangements for emergency preparedness and response in order to enhance the management of OHS at the University. One strategy identified by Key Informant MM2 is creating an assembly point at the University. He stated that CHAU did not have an assembly point, which was an anomaly. He continued that creating an assembly point at CHAU was long overdue, especially that the University had suffered a series of fires in the recent past. Another strategy that was brought out by Key Informant ML1 is creating emergency exits from all buildings. He suggested that installing emergency signalling systems would be another useful strategy. The other strategy that was suggested by Key Informants ML1, HE1, OH1, and FD1 is the provision of emergency training as well as conducting fire drills to mimic emergencies such as fire outbreaks and floods, among others.

This finding shows that emergency preparedness and response is important for effective OHS management at CHAU. This is because it has also been established at universities that have developed OHS policies. For example, universities in the UK such as the University of Huddersfield (2018:15), Durham University (2021:20-24), University of Essex (2021:20), and Staffordshire University (2022:17) had put in place emergency preparedness and response arrangements in the form of fire evacuation drills, emergency exit signs, and firefighting equipment.

7.3.3.8 Collaboration with external key stakeholders

The informants of this study stated that CHAU needed to collaborate with external stakeholders in the provision of certain OHS services that the University was unable to provide on its own. For example, Key Informants SR1 and SR3 stated that CHAU needed to collaborate with Chongwe District Hospital and the Chalimbana Rural Health Centre to ensure that students were prioritised when seeking treatment. Further to that, Key Informant TM3 indicated that, given that CHAU had experienced a number of fires, the University needed to establish a collaborative partnership with the Fire Department at the Chongwe Municipal Council. Key Informant FD1 supported the

foregoing by indicating that the Fire Department would be willing to provide expert training to the University on a number of important topics including, but not limited to, fire drills, fire hazard identification and risk assessment, usage of fire extinguishers, and effective fire communication. Furthermore, Key Informant TM4 suggested that CHAU could also partner with the Chongwe Municipal Council to facilitate vaccination and execution of stray dogs.

7.3.3.9 Building medical facilities

The findings of this study established that CHAU needed to build its own medical facilities to enable the University to effectively and efficiently provide medical services to managers, workers, students, and infant learners. For example, Key Informants SR1 and SR3 contended that CHAU needed to build a University clinic within its campus. They stated that this would make it easier for students to access medical services quicker as they would no longer have to wait in queue for lengthy periods as the case was currently. The foregoing was echoed by Key Informants TM7 and LM3 who indicated that building a university clinic would prioritise the treatment of staff and students. In addition, Key Informant LM3 stated that CHAU would need to employ its own medical personnel at the University clinic to ensure accountability.

The above finding is important to this study because it demonstrates that medical facilities are critical to the management of health and safety at a university. For example, Zayed University (2019:2) in the UAE had committed to providing adequate medical facilities through its OHS policy. In addition, the above finding is significant because it would enable CHAU to be in conformity with the legal provisions in Zambia. For instance, the Employment Code Act of 2019 required employers to provide medical services to their workers.

7.3.3.10 Security management

The informants in this study pointed out that CHAU needed to establish arrangements for managing security at the University. Given that CHAU had not been allowed to build a wall fence around its campus by the traditional authority, Key Informants LM4 and CC1 stated that the University could opt to secure its campus using an electric or iron bar fence. Additionally, Key Informant ZP1 suggested that there would be need to deploy more police officers to the CHAU police post.

This study deduced that building a fence around CHAU would improve OHS management. This is because it would limit the entry of stray dogs and unauthorised individuals into the University campus. In turn, this would likely minimise the risk of staff and students being attacked by stray dogs and intruders.

7.3.3.11 Regular policy review

Interviews with the informants in this study unearthed the need for CHAU to regularly review its OHS policy. For instance, Key Informant ML1 indicated that CHAU should review its OHS policy every time there were changes to relevant OHS laws.

This finding is very important to this study because it would enable the OHS policy at CHAU to always be in conformity with the legal requirements in Zambia, among other things. In addition, reviewing its OHS policy regularly would enable CHAU to conform to best practices adopted by universities that have prioritised OHS management. For instance, universities in Australia review their OHS policies at least once every five years (see Flinders University, 2021:4; Australian National University, 2022:3).

7.3.3.12 Allocation of adequate resources

Interviews with the key informants in this study revealed that CHAU needed to allocate adequate resources for OHS management. For instance, Key Informant ST1 specified that top managers at CHAU should adequately budget for OHS annually. He added that this would negate the haphazard allocation of resources that characterised the management of the COVID-19 pandemic at the University. In supporting the foregoing, Key Informant MM2 posited that without adequate finances, it would be difficult for CHAU to manage OHS. Furthermore, Key Informant TM2 stated that the VC's office would be committed to the allocation of sufficient human and financial resources to OHS management at CHAU.

This finding demonstrated that allocation of resources is critical to the management of OHS at a university. This is because universities that have developed OHS policies have committed to allocating adequate resources for OHS management. For example, universities in Australia had committed to making available adequate financial and human resources to enhance OHS management (see University of Wollongong, 2020; Curtin University, 2021; University of Canberra, 2021; University of Melbourne, 2021; University of Southern Queensland, 2021; Australian National University, 2022). This study deduced that allocating adequate financial resources at CHAU was likely to enable the University to afford activities such as replacement of floor tiles, provision of PPEs, construction of additional student hostels, and construction of a clinic, among others.

7.3.3.13 Indemnification of workers

A review of the responses obtained from interviews with key informants established that workers and students at CHAU should be indemnified against any disciplinary action in an event that they

refused to undertake work that they believed was dangerous to their health and safety. For instance, Key Informant ST1 explained that:

“Management is expected to create an environment in which workers are free to speak freely against poor working condition which threaten their health and safety. At CHAU, because of the political influence that we experienced in the run up to the 2021 general election, most workers are afraid of speaking openly for fear of being fired.”

This finding is important to this study because it would empower workers and students to openly speak against threats to their health and safety at CHAU. This process would not be unique to CHAU as it had been reported at other universities. For instance, the Federation University (2022:9) in Australia had provided for the indemnification of workers performing OHS functions.

7.3.3.14 Supporting policies

This study established that CHAU needed to develop and implement other policies to support the OHS policy. The responses of the informants revealed that an OHS policy could not work in isolation to promote health and safety at the University. For example, Key Informant ML1 stated that, in order to be effective, an OHS policy should be complimented by other policies focusing on specific areas necessary to the management of OHS at CHAU. He pointed out that an OHS policy was usually a small document, which only provided guidelines for OHS management and pointed stakeholders to other policies with detailed information on the management of specific hazards.

This finding agrees with best practices obtaining at some universities that had developed OHS policies. For instance, universities in Canada such as Carleton University (2021), University of Victoria (2021), and University of Calgary (2022) had developed several other policies to support and compliment their OHS policies. These included policies on the following: alcohol and drug abuse, harassment and sexual violence, smoking, weapons on campus, snow management, vehicles on campus, domestic animals on campus, and children on campus.

7.3.3.15 Development of occupational health and safety guidelines specific to departments and units

Analysis of the data collected in this study revealed that each department and unit at CHAU should develop OHS guidelines that are responsive to their unique hazards and risks. The informants stated that, while CHAU needed to develop an OHS policy to provide university-wide guidelines to OHS management, there would be need for each department and unit to use the policy to establish guidelines tailored to their OHS needs. This submission was aptly personified by Key Informant TM5 who indicated that top management should:

“Sanction a university wide exercise for each school, department, and unit to develop their own safety and health guidelines that speak to their hazards and risks. This must be preceded by the development of a policy for the entire University.”

7.3.3.16 Disciplinary procedures

The responses from the participants in this study revealed that it would be imperative for CHAU to introduce disciplinary procedures for workers and students who deliberately violated OHS regulations. For example, Key Informant ML1 indicated that in accordance with the Occupational Health and Safety Act of 2010, the University would need to introduce penalties for individuals who deliberately contravened their OHS responsibilities. He added that the law in Zambia already prescribed penalties for individuals who endanger themselves and others. These included fines and imprisonment.

This finding is consistent with OHS laws in Zambia. For instance, according to the Occupational Health and Safety Act of 2010, an individual who is found guilty of having contravened their OHS duties could be fined or imprisoned or both. However, this study deduced that such disciplinary procedure should be fair and transparent.

7.3.3.17 Improved accommodation for students

A review of the interviews held with the key informants revealed that CHAU needed to take deliberate action to improve the status of student's accommodation at the University. For example, Key Informant LM1 had the following to say:

“There is need for management to build more hostels, which can accommodate all the students. If this is not possible, management must make sure that all the boarding houses in which students are staying are healthy and safe. This will protect our students from a number of factors that can compromise their health and safety.”

In addition, Key Informant HE1 emphasised that the HEA required all universities to ensure that the accommodation facilities of all their students did not pose a hazard to their health and safety. He added that CHAU needed to establish measures to ensure that students' accommodation was favourable.

7.3.3.18 Acquisition of appropriate furniture

Interviews with the informants in this study revealed that CHAU should acquire new chairs and tables to prevent ergonomic hazards related to awkward posture as discussed under Section 5.7.4.3 of this thesis. For example, Key Informant TM1 and LM1 indicated that the University

needed to conduct an audit aimed at identifying and discarding all furniture that posed ergonomic hazards to workers. Key Informant TM1 added that the foregoing should be followed by the acquisition of appropriate furniture.

This finding conforms to the legal requirements in Zambia. The Factories Act of 1967 protects workers in factories and other workplaces from ergonomic hazards. Furthermore, this finding conforms to OHS best practices adopted by other universities. For example, in the USA, the University of Connecticut (2018), Virginia Polytechnic Institute and State University (2019), Illinois State University (2021), and the Oregon State University (2021) had all put in place arrangements for protecting workers from ergonomic hazards.

7.3.3.19 Provision of personal protective equipment

After reviewing the responses of the informants in this study, it was revealed that CHAU needed to provide PPEs to staff at the University. For example, Key Informants ML1 and HE1 stated that the law in Zambia mandated employers to ensure that all workers had adequate PPEs. Similarly, Key Informant ST1 indicated that the union expected the University to provide PPEs to all the workers to ensure that they were safe all the times. Key Informant MM5 added that the University should ensure that all staff and students were provided with appropriate PPEs.

This finding conforms to the laws in Zambia. The Occupational Health and Safety Act of 2010 obliges employers to provide PPEs to employees for free. Similarly, the Factories Act of 1967 mandates factory owners to provide adequate PPEs to employees to protect them from occupational hazards.

7.3.3.20 Building and maintaining physical infrastructure

After a review of the responses obtained during this study, the findings unearthed the need for CHAU to build new infrastructure such as classrooms, offices, library, and students' accommodation. This would be aimed at preventing risks posed by old and dilapidated structures and asbestos rooftops. In addition to constructing new structures, the key informants stated that CHAU needed to maintain its infrastructure on a continuous basis. For example, Key Informant LM1 stated that, as opposed to the current situation where infrastructure at the University was only maintained reactively, there should be a shift towards proactive maintenance of University structures.

This finding is consistent with HEA guidelines that require all universities to ensure that their structures are healthy and safe at all times (see HEA, 2021:31).

7.3.3.21 Provision of clean and adequate water

The responses of the informants in this study revealed that CHAU needed to enhance the provision of clean and adequate water to manage risks posed by inadequate and inconsistent water supply. For example, Key Informant LM1 stated that the University needed to drill more boreholes for it to meet the demand for clean water at CHAU. Correspondingly, Key Informant LM4 revealed that the five boreholes at the University were not sufficient. As such, there was need to sink more boreholes. He further narrated that, if the University failed to sink more boreholes, the other option to enhance water supply would be to benefit from the water system management by the Chongwe Municipal Council.

7.3.3.22 Fire management

The informants in this study believed that CHAU needed to put in place arrangements focusing on fire management. For example, Key Informant FD1 proposed the installation of firefighting equipment like horse reels with uninterrupted water supply. He continued that the University needed to conduct fire drills to prepare all members of the University community for fire emergencies. Key Informant MM2 added that CHAU should install:

“Sprinklers and fire and smoke detectors around the campus Because manual methods like fire extinguishers have too many pitfalls.”

Similarly, Key Informant TM3 stated that in addition to the fire extinguishers that have been installed at the University, CHAU needed to provide more firefighting equipment like automated sprinklers. He also added that CHAU needed to provide regular training on fire management such as effective use of fire extinguishers.

This finding agrees with the legal requirements in Zambia. For instance, the Factories Act of 1967 requires factory owners and other employers to install adequate firefighting equipment and to ensure that they are always working. In addition, the Act requires employers to ensure that all employees receive fire management training. Furthermore, this finding conforms to the requirements by the HEA, which requires universities in Zambia to ensure that their buildings have facilities that promote fire prevention, fighting, and escaping. This finding also agrees with practices obtaining at universities with established OHS policies. For example, in England, University of Huddersfield (2018:15), Durham University (2021:20-24), University of Essex (2021:20), and Staffordshire University (2022:17) had put in place arrangements to enhance the management of fire hazards.

7.4 CHAPTER SUMMARY

This chapter has established the informants' views on the required OHS policy for CHAU. Specifically, the chapter has established the following: the required OHS policy statement for CHAU; the required organisation of OHS at CHAU; and the required arrangements for OHS. This chapter is important because the information it generated was helpful in proposing an appropriate OHS policy for CHAU. Additionally, this chapter provided information pertaining to what the key informants believed should be the appropriate OHS policy for CHAU. The next chapter proposes an OHS policy for CHAU. It does so by collating information from chapters three, four, five, six, and seven.

CHAPTER 8 PROPOSED OCCUPATIONAL HEALTH AND SAFETY POLICY FOR CHALIMBANA UNIVERSITY

8.1 INTRODUCTION

The previous chapter focused on obtaining information from the informants involved in this study on what they believed would be an appropriate OHS policy for CHAU. It unearthed relevant information pertaining to what the informants believed should be included under the three major sections of an enterprise level OHS policy that were discussed under Section 3.6.2 of this thesis. These are: policy statement; organisation for OHS; and arrangements for OHS.

The aim of this chapter is to address the fifth objective of the study, which is “*to propose an appropriate policy that would promote OHS management at CHAU.*” To propose an appropriate OSH policy for CHAU, the chapter collates information from best practices at other universities, international standards, Zambian legal and administrative requirements, and empirical findings from interviews with key informants involved in this study. This chapter comprises the following sections: introduction; public policy development; proposed OHS policy for CHAU; and summary.

8.2 PUBLIC POLICY DEVELOPMENT PROCESS

Before proposing an OHS policy for CHAU, it is necessary for this study to discuss the policy making process. This is because, all public policies are generally developed using a similar process. As discussed under Section 2.4.1, defining public policy is a complex task because the meaning varies among various stakeholders (Peters & Pierre, 2006:1-2; Gerston, 2010:5; Birkland, 2011:7; Peters & Zittoun, 2016:4; Dye, 2017:8). Regardless of the foregoing, under the aforesaid section, this study defined public policy “*as a deliberate course of action propelled by the collective efforts of state and non-state actors with the aim of solving specific public problems or protecting specific public interests.*”

Public policies can be developed at various levels including, organisational, local, regional, sectoral, and national. Regardless of the level, the process of developing a policy takes a similar trajectory. According to Anderson (2003:ix), public policy development goes through a cyclical process involving five stages. These are discussed in brief hereunder:

Agenda setting: The commencement of the development of any public policy involves identification of a public problem. This is technically a mammoth task as most problems that affect the public are complex and, in some cases, intertwined (Cochran *et al.*, 2009:9). At this stage, there are different perceptions of the problem and demands for different government actions ensue (Cochran *et al.*, 2009:9). It is important to note that during this stage, there are other competing problems that also require government intervention (Knill & Tosun, 2008:13).

Furthermore, this stage involves deciding which problems deserve the most attention (Cairney, 2012:33). However, this stage is usually contentious as several factors including cultural values, political interests, interest groups, among others, influence the process of deciding which issues deserve government action (Knill & Tosun, 2008:13; Cochran *et al.*, 2009:9). In relation to this study, the problem is that there is no OHS policy at CHAU to establish guidelines for managing the hazards that have been identified in chapter five.

Policy formulation: This stage involves determining feasible courses of action that can be taken to address the problem that has been identified (Cairney, 2012:48; Knill & Tosun, 2008:13). It involves “*setting objectives, identifying the cost and estimating the effect of the proposed solutions*” (Cairney, 2012:48). In view of this study, developing a proactive and comprehensive policy for CHAU was deemed as the feasible course of action to address the OHS challenges at the University. Stakeholders within and outside CHAU were in favour of developing an OHS policy for the University. Internal stakeholders included CHAU managers, staff representatives, and students’ representatives, among others. External stakeholders included public officials from the Ministry of Education, Ministry of Labour and Social Security, OHSI, Chongwe Municipal Council, and HEA.

Policy adoption: It involves the selection of a policy alternative or a combination of policy alternatives that will be used to address the targeted problem (Knill & Tosun, 2008:13). The adoption of policy alternatives is usually influenced by similar factors that influence the agenda setting (Cochran *et al.*, 2009:9). The adoption stage also ensures that the selected course of action has support including legislative and executive approval (Cairney, 2012:48). This study adopted the policy alternatives submitted by the informants in this study. The adopted policy alternatives were found to be in conformity with Zambian legal provisions, recommendations by international standards, and best practices prevalent in other universities. This was the core emphasis of this study as it focused on proposing an appropriate OHS policy for CHAU. Additionally, this was the last stage of the policy process that this study focused on.

Policy implementation: This is the penultimate stage of the policymaking process. It involves putting the adopted policy alternatives into effect so as to address the identified problem (Walker, 2000:15). Implementation should ensure that the policy is in line with the objectives identified in the agenda setting stage (Cairney, 2012:48). To this end, there should be a unit tasked with the responsibility to oversee the implementation process (Cairney, 2012:48). Although the scope of this study ends at adoption as indicated above, it identifies units within CHAU that would enable the implementation of the University’s proposed OHS policy.

Policy evaluation: This is the final stage, and it involves “*assessing the extent to which the policy was successful or if the policy decision was the correct one or if it was implemented correctly and*

if it had the desired effect” (Cairney, 2012:48). “Policy evaluation provides a feedback loop, which enables decision makers to draw lessons from each particular policy in operation. This feedback loop identifies new problems and sets in motion the policymaking process once again, creating an endless policy cycle” (Knill & Tosun, 2008:23). This stage is outside the scope of this study. However, the policy provides guidelines on policy review, which can be equated to evaluation. For example, the study suggests the frequency with which the proposed OHS policy for CHAU should be reviewed.

Although organisations may all follow the five-stage model of policy development, they cannot have policies that are exactly the same. This is because each organisation is unique and should adopt its own way of addressing pertinent needs. The foregoing corresponds with recommendations by international OHS standards that every organisation should develop an OHS policy that is appropriate to its size, nature, and activities (ILO, 2001; ISO, 2018). In view of the foregoing, this study focused on developing an OHS policy that is unique to CHAU.

8.3 PROPOSED OCCUPATIONAL HEALTH AND SAFETY POLICY FOR CHALIMBANA UNIVERSITY

As discussed under Section 3.4.2 of this thesis, developing an OHS policy for the first time for any organisation should be preceded by an initial status review. According to the Labour Department (2002:18) and ILO (2009a:10), an initial review should focus on the following: Identifying all OHS legal obligations of the organisation; identifying and assessing the potential risks and hazards in an organisation; and determining plans to alleviate identified hazards and risks. In keeping with the foregoing, this study did an initial status review of CHAU as follows: Under Section 4.3.2 of this thesis, the study established the legal and administrative OHS obligations of CHAU. Under sections 5.7 and 5.8, the study established the type of hazards and nature of accidents prevalent at CHAU, respectively. Under Section 6.4, the study unveiled the challenges that characterised the management of OHS at CHAU. Under sections 6.2 and 6.3, the study unearthed the current management of OHS at CHAU in the absence of a policy. Under Section 7.3, the study established the required OHS policy for CHAU.

Based on the discussions in the above-mentioned sections, this section (section 8.3) proposes an appropriate OHS policy for CHAU.

8.3.1 Health and safety policy statement

Here, the study presents the first section of the OHS policy for CHAU, the policy statement. It illustrates what should constitute the health and safety policy statement for the OHS policy for CHAU.

8.3.1.1 Purpose of the policy

The purpose of the policy should be to:

- Establish an OHS management system at CHAU based on the PDCA model as recommended by the international standard ISO 45001:2018;
- Provide comprehensive OHS guidelines for the entire University;
- Demonstrate management's commitment to managing the health and safety of all staff, students, infant learners (aged 3 to 6), visitors, and contractors at CHAU; and
- Proactively manage OHS at CHAU by anticipating hazards and developing preventive and protective measures beforehand.

8.3.1.2 Scope of the policy

The scope of the OHS policy for CHAU should be divided into parts, the categories of individuals to be covered and the locations to be covered. The categories of individuals that should be covered under the OHS policy at CHAU are:

- Employers and managers: These should include members of the University Council and individuals in management positions such as the VC, DVCs, Registrar, Deputy Registrars, Librarian, DOSA, Assistant DOSAs, Directors, Deputy Directors, Deans, Managers, and HODs, among others.
- Workers: These should include full-time and part-time academic and non-academic staff. Furthermore, both unionised and non-unionised workers should also be under the scope of the OHS policy at CHAU.
- Students: Full-time and part-time undergraduate and postgraduate students should all be covered by the OHS policy at CHAU.
- Infant learners: CHAU has an Early Childhood Education Centre of Excellence, which enrolls infants between the age of 3 and 6. These infant learners spend most of their time at the Centre where they attend their school lessons. As such, the OHS policy for CHAU should provide for their protection against occupational hazards prevalent at the University.
- Parents and guardians: Parents and guardians are responsible for taking the infant learners to and from the University premises. This means that they come in contact with the University regularly. This exposes them to the hazards and risks prevalent at the University. As such, they should also be covered under the OHS policy for CHAU.
- Visitors: CHAU receives a number of visitors on a daily basis. These include the following: representatives from partner organisations, family members of workers and students, and auditors and inspectors, among others. Whenever the said visitors are on the University premises, they should be covered by the OHS policy.

- Contractors: Like most organisations, CHAU sub-contracts individuals and organisations to provide certain services. For example, the study found that CHAU had contracted C7S and Esmili Cleaning Company to provide security services and cleaning services respectively. These should also be covered under the policy.

The locations that should be covered by the OHS policy for CHAU are:

- CHAU Chongwe campus;
- Routes to and from Chongwe campus; and
- Any other locations where staff and students will be performing official responsibilities including, but not limited to, research, training, conference and workshop presentation, teaching practice, teaching observation, and sports.

8.3.1.3 Policy statement of intent

As stated under Section 3.6.2.1.3 of this thesis, a policy statement of intent expresses management's commitment to managing OHS. Under the said section, it was unearthed that a policy statement of intent should be brief or presented as short statements to ensure that it is easily understood by everyone within and outside the organisation (see Hughes & Ferrett, 2016:52). In view of the foregoing, the management at CHAU should commit to the following:

- Meeting CHAU's legal requirements provided by the following laws: Factories Act of 1967; Workers' Compensation Act of 1999; Occupational Health and Safety Act of 2010; Higher Education Act of 2013; Employment Code Act of 2019; and Higher Education (amendment) Act of 2021.
- Establishing an OHS management system at CHAU based on the PDCA model recommended by international standards focusing on OHS.
- Allocating adequate human and financial resources to enhance the management of OHS at CHAU.
- Collaborating and consulting with internal and external stakeholders such as staff, students, medical service providers, fire management service providers, and relevant ministries, among others.
- Developing OHS training programmes for equipping staff and students with relevant and up to date OHS information.
- Building a positive health and safety culture through leading by example and constant sensitisation of staff and students on OHS management.

8.3.1.4 Policy objectives

The objectives of the OHS policy at CHAU should be to:

- Establish relevant and appropriate proactive and comprehensive guidelines for protecting all members of the University community such as managers, workers, students, infant learners, parents, visitors, and contractors;
- Improve the delivery of education by creating a healthy and safe environment suitable for teaching, researching, learning, and habitation;
- Manage hazards and risks, and minimise the occurrence of accidents and illnesses to all members of the University community;
- Establish hazard identification and risk assessment processes and procedures to enhance the management of OHS at CHAU;
- Comply with national legal provisions including: Factories Act of 1967; Workers' Compensation Act of 1999; Occupational Health and Safety Act of 2010; Higher Education Act of 2013; Employment Code Act of 2019; and Higher Education (amendment) Act of 2021;
- Allocate adequate resources for health and safety management to all units and departments;
- Promote and encourage a collaborative and consultative approach to OHS management; and
- Assimilate health and safety in responsibilities into everyday work processes.

8.3.1.5 Policy review period

The OHS policy for CHAU should be reviewed as follows:

- Frequency of review: The OHS policy for CHAU should be reviewed once every after three years.
- Conditions for reviewing the policy: Notwithstanding policy review frequency stated above, the policy should be reviewed whenever there are amendments to legal requirements, changes in the characteristics of hazards, manifestation of accidents and incidents, and noteworthy modifications in work methods, tools, and technology.

8.3.1.6 Policy validation officer

The OHS policy at CHAU should be validated as follows:

- Signature: The VC of CHAU should be responsible for signing the OHS policy. The appending of the signature should be an indicator that the policy has been approved.

- Date: The VC should write down the date on which he/she has approved the OHS policy for the University. The said date should be taken as the effective date of the policy.

8.3.2 Organisation of occupational health and safety

This section focuses on the second section of the OHS policy for CHAU, the organisation of OHS. It illustrates how OHS responsibilities at CHAU should be allotted.

8.3.2.1 University Council

The OHS responsibilities for the University Council at CHAU should be as follows:

- Developing strategic OHS plans for CHAU in line with the Higher Education Act of 2013, as amended in 2021, which gives the Council powers to govern the University.
- Providing adequate financial and human resources for enhanced OHS management at the University.
- Spearheading the establishment of CHAU's OHS management system anchored on the PDCA model.
- Guaranteeing observance to legal provisions provided by the Factories Act of 1967; Workers' Compensation Act of 1999; Occupational Health and Safety Act of 2010; Higher Education Act of 2013; Employment Code Act of 2019; and Higher Education (amendment) Act of 2021.

8.3.2.2 Vice-Chancellor

The OHS responsibilities of the VC at CHAU should be to:

- Report to the University Council on all health and safety matters including performance and challenges;
- Lobby the University Council for timely and adequate financial and human resources for enhanced OHS management at the University;
- Constitute a permanent heterogeneous OHS committee with representation from employers, staff, and students;
- Allot appropriate OHS responsibilities and commensurate authority to managers, staff, students, visitors, parents and guardians, and contractors; and
- Continuously check the general performance of OHS management at CHAU.

8.3.2.3 Deputy Vice-Chancellors

At CHAU, there are two DVCs who report to the VC. One is responsible for research and innovation, and the other for administration and academics. Their OHS responsibilities should be as follows:

- Supporting the VC in the day to day management of OHS at the University.
- Overseeing the management of OHS at CHAU when the VC is unavailable for whatever reason.

8.3.2.4 Top level management

The top level managers in the OHS policy for CHAU should include the following: Chief Librarian, Dean of Students, Chief Financial Officer (CFO), Deans of School, and Directors. They should report directly to the VC. Their OHS responsibilities should be to:

- Report regularly to the VC on the performance of OHS in the units they are superintending;
- Provide and demonstrate OHS leadership in the units they are superintending;
- Ensure that all the units under their supervision always have good quality, adequate, and appropriate PPEs;
- Ensure that all the units under their supervision are continuously furnished with relevant information pertaining to health and safety;
- Formulate annual budgets for OHS management in their units; and
- Constantly check observance to OHS guidelines among individuals in the units they are overseeing.

8.3.2.5 Health and safety coordinator

CHAU should create the position of *Health and Safety Coordinator*, which should be placed under the Registrar's office. The responsibilities of the coordinator should be to:

- Report regularly to the Registrar on OHS performance at CHAU;
- Promptly disseminate relevant OHS information to the University community using convenient channels such as emails, social media platforms, notice boards, pigeonholes, and the University's website;
- Proactively procure good quality, ample, and appropriate PPEs for the University community;
- Plan and schedule regular OHS trainings for managers, workers, students, infant learners, and contractors;
- Audit adherence to the provisions of the OHS policy throughout the University;

- Procure relevant OHS equipment such as fire extinguishers and first aid kits for all units in the University;
- Plan and manage all transportation schedules at CHAU;
- Plan and organise maintenance of all University buses and vehicles.

8.3.2.6 Occupational health and safety committee

The OHS Committee at CHAU should include representation from employers, staff, students, and parents and guardians of infant learners. The responsibilities of the OHS Committee should be to:

- Promote cooperation among University Council, management, workers, parents, and students at CHAU;
- Share information about occupational health, safety and welfare with management, students, parents and guardians, visitors, and contractors;
- Investigate and resolve any matter that may be a risk to the health and safety of Council, management, staff, students, parents and guardians, infant learners, visitors, and contractors at CHAU;
- Review the measures taken on the health and safety of Council, managers, employees, students, parents and guardians, infant learners, visitors, and contractors at CHAU;
- Formulate, review, and disseminate to the Council, management, employees, students, parents and guardians, infant learners, visitors, and contractors the standards, rules and procedures relating to health and safety to be carried out at CHAU; and
- Develop OHS orientation programmes for new staff and students at CHAU.

8.3.2.7 Heads of department and managers

At CHAU, the aforementioned officers report to top level managers. Their OHS responsibilities should be to:

- Provide regular reports to their superiors on OHS performance in their units;
- Promptly disseminate all relevant OHS information to staff and students under their supervision using appropriate channels such departmental WhatsApp groups, emails, and pigeonholes;
- Constantly check observance to OHS guidelines among staff and students under their units;
- Request fire extinguishers and first aid boxes for their units; and
- Secure sufficient and appropriate PPEs for staff and students in their units;

8.3.2.8 University caretaker

The caretaker at CHAU reports to the Registrar. The OHS responsibilities of the caretaker should be to:

- Report regularly to the Registrar on the state of the University infrastructure.
- Maintain and repair the University's infrastructure including, but not limited to, buildings, water supply systems, and electricity supply systems, among others.

8.3.2.9 University matron

The matron at CHAU reports to the Registrar. The OHS responsibilities of the matron should be to:

- Report to the Registrar on the state of health and safety among students at CHAU;
- Sensitise and train students on sexual health and personal and environmental hygiene, among others;
- Inspect and monitor adherence to hygiene regulations among students;
- Facilitate the transportation and treatment of ailing students to the nearest medical facility; and
- Administer treatment to students who do not need hospitalisation.

8.3.2.10 Workers (academic and administrative)

The OHS responsibilities for workers at CHAU should be to:

- Promptly report all occupational hazards, accidents, and incidents to the supervisor;
- Act responsibly for own health and safety and that of other people in the University;
- Desist from unsafe acts, behaviours, and work processes;
- Collaborate with the management and participate in OHS management at the University; and
- Religiously observe all OHS guidelines at the University.

8.3.2.11 Students, visitors, parents and guardians, and contractors

The OHS responsibilities for students, visitors, parents and guardians, and contractors are similar and should be combined. Their responsibilities should be to:

- Promptly report all hazards, risks, and accidents encountered at the University;
- Religiously observe all health and safety regulations instituted at the University; and
- Use machines, tools, PPEs correctly and as prescribed by the University.

8.3.3 Arrangements for health and safety

This section focuses on the third section of the OHS policy for CHAU, the arrangements for OHS. It illustrates how the OHS policy should be implemented.

8.3.3.1 Legal and administrative requirements

At the bare minimum, the development of an enterprise level OHS policy should be guided by national legal and administrative requirements. At CHAU, the development of the OHS policy should be guided by the following laws and regulatory tools:

- Occupational Health and Safety Act of 2010;
- Employment Code Act of 2019;
- Factories Act of 1967;
- Workers' Compensation Act of 1999; and
- HEA Audit of Conventional and Dual Colleges Tool of 2020.

8.3.3.2 Occupational health and safety management system

To implement the OHS policy, the management at CHAU should establish an OHS management system that is based on the PDCA model presented in Figure 8.1 below.

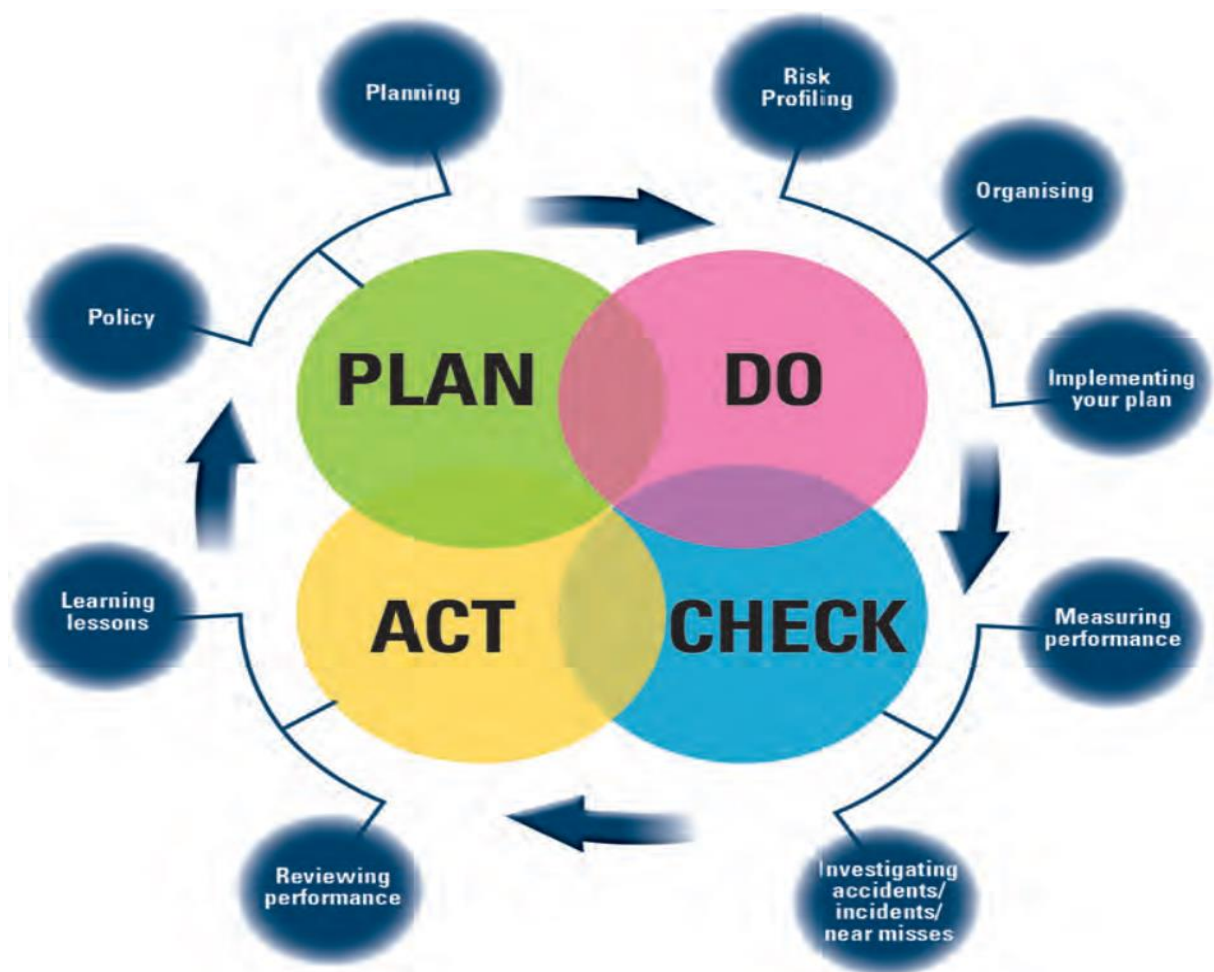


Figure 8-1: PDCA model (Source: Hughes & Ferrett, 2016:44)

Plan: This stage involves developing plans for how the organisation is going to make the workplace healthy and safe.

Do: This stage involves the implementation of the plans that were developed in the plan stage.

Check: At this stage, there is a process of checking if plans are being implemented successfully.

Act: The acting stage is concerned with taking action to correct all weaknesses and non-conformities.

8.3.3.3 Supporting policies

The OHS policy for CHAU should be supported and complemented by other policies in the University. Therefore, CHAU should develop policies focusing on the following:

- Physical and sexual violence: To guide staff and students on how the University should prevent and manage physical and sexual harassment;

- Alcohol and drug abuse: To provide guidance on how the University should manage alcohol and drug abuse among staff and students;
- Domestic animals on campus: To provide guidelines on how the University should manage the problem of stray dogs, cattle, and other domestic animals;
- Infant learners and children on campus: To guide the University on how it should protect infant learners and children from occupational hazards prevailing at CHAU;
- Student's complaint: To stipulate how students should air out their grievances without fear of punishment and ridicule;
- Disability: To stipulate how the University should accommodate staff, students, infant learners, parents and guardians, visitors, and contractors with disabilities; and
- Snake handling: To provide guidelines on how members of the University community should identify and handle poisonous snakes.

8.3.3.4 Hazard identification and risk assessment

Given that CHAU does not currently have mechanisms for identifying hazards and establishing their risk level, the management at the University should establish the following:

- Guiding techniques for identifying occupational hazards and determining their level of risk;
- Guiding procedures for efficient and effective hazard and risk reporting; and
- Guiding procedures for alleviating occupational hazards and risks.

8.3.3.5 Consultation, collaboration, and participation in health and safety management

To facilitate consultation and collaboration in health and safety management at CHAU, the management should establish the following:

- A permanent heterogeneous OHS committee constituting managers, workers, and students, among others;
- Guidelines for the composition and chairmanship of the OHS committee in line with national legal provisions and best practices;
- Functions of the said permanent heterogeneous OHS committee; and
- Quorum for meetings of the permanent heterogeneous OHS committee.

8.3.3.6 Occupational health and safety communication

To facilitate the effective communication of OHS information to stakeholders within and outside CHAU, the University should establish the following communication channels:

- Physical channels: These should include the following: posting notices on notice boards; printed newsletters and flyers; and attachments to students' acceptance letters.

- Virtual channels: These should include CHAU website; virtual newsletters; and popular social media platforms such as WhatsApp, Facebook, Thread; and X (formerly Twitter).

8.3.3.7 Health and safety training

To ensure that all relevant stakeholders at CHAU are trained in OHS management, the management at the University should establish the following: integrated

- OHS orientation programmes for all new workers and students;
- OHS sensitisation programmes for all workers and students whenever need arises;
- Incorporating OHS management in all the study programmes for students; and
- Training programmes focusing on the usage of fire extinguishers; administering first aid; hazard identification and risk assessment; accident and incident reporting; and emergency preparedness and response.

8.3.3.8 Emergency preparedness

To ensure that the University community at CHAU is always prepared to respond to emergencies of any nature, the management at the University should establish the following:

- Assembly point where all members of the University community can assemble in times of an emergency;
- Emergency exit routes and passages in all buildings at the University;
- Emergency communication and signalling systems and facilities; and
- Scheduled emergency drills for staff and students.

8.3.3.9 External partnerships

CHAU should collaborate with certain external partners that can provide services that the University is unable to provide on its own. The following are the external partners CHAU should partner with:

- Chongwe District Hospital and the Chalimbana Rural Health Centre: To establish arrangements for efficiently and effectively providing medical services to managers, staff, students, and infant learners;
- Chongwe Municipal Council: To establish proactive arrangements for fire management, dog vaccination and execution, and spraying against malaria, among others;
- Ministry of Education: To establish arrangements for effective funding of OHS management at CHAU;
- Boarding house owners: To ensure that all boarding houses meet the minimum health and safety requirements; and

- The Busoli Royal Establishment: To obtain support in OHS management. For example, allowing CHAU to build a fence around the University campus.

8.3.3.10 Medical facilities

CHAU does not have its own medical facility. As such, CHAU would continue using the nearest community clinic. However, in the long-term, CHAU should consider the following:

- Building a university clinic situated within the campus.
- Hiring specialised medical personnel to work at the University clinic.

8.3.3.11 Indemnification of workers

To ensure that members of the University community are able to speak freely on matters relating to OHS and empowered to refuse to perform work that is dangerous to their health and safety, the University should put in place the following:

- Immunity for workers who genuinely refuse to perform dangerous work.
- Reporting channels that promote anonymity.

8.3.3.12 Disciplinary action

To encourage observance to OHS regulations put in place by the University, the management at CHAU should develop the following measures:

- Fair procedures for investigating negligence by workers at CHAU;
- Fair, appropriate, and prompt disciplinary action for employees and students who are duly convicted to have contravened the OHS regulations provided by the University; and
- Fair and prompt appeal procedures and processes for workers and students who deem the disciplinary process unfair.

8.3.3.13 Fire management

To proactively manage fire at CHAU, the following measures should be established:

- Fire management training including usage of fire extinguishers;
- Fire emergency drills;
- Escape routes and assembly point;
- Regular maintenance of fire extinguishers;
- Acquisition and installation of firefighting equipment such as fire extinguishers, horse reels, fire blankets, smoke detectors, sprinklers, and fire alarms; and
- Partnership with the fire department at the Chongwe Municipal Council.

8.3.3.14 Provision of personal protective equipment

CHAU is legally mandated to provide adequate and appropriate PPEs to workers and students. Therefore, the University should put in place the following:

- Adequate funding to proactively procure sufficient, durable, and appropriate PPEs;
- Appropriate procurement procedures to ensure that the University procures PPEs of good quality;
- Procedures for workers and students to report defective PPEs; and
- Training on correct and appropriate usage of PPEs.

8.3.3.15 Managing ergonomic hazards

To manage the ergonomic hazards at CHAU, the management should do the following:

- Approve procedures for identifying ergonomic hazards at CHAU;
- Acquire appropriate furniture for all workers, students, and infant children;
- Acquire equipment for handling and lifting heavy loads; and
- Identify training and sensitisation programmes for workers and students on the right posture for sitting, lifting heavy loads, and standing.

8.3.3.16 Managing physical hazards

The physical hazards at CHAU should be managed as follows:

- To manage unrestricted entry to the University campus, the management at CHAU should do the following: build a fence around its campus; deploy security at all entrances to the University; install adequate security cameras around the University; and install adequate security lights around the campus.
- To prevent the risks posed by old buildings and poor design of infrastructure, the University should build new infrastructures that are modern and user-friendly to the differently-abled.
- To manage slips and falls, CHAU should ensure that floors are always dry; install floor tiles with grip; sensitise members of the University community on appropriate footwear; get rid of steep stairs and steps; constant maintenance of leaking water pipes in all buildings at CHAU; installation of guardrails on all staircases and placing appropriate warning signs around the University.
- To manage risks posed by dogs, the University should build a fence around the campus; regular vaccination of domesticated dogs; execution of rabid dogs; and prohibiting staff and students from feeding stray dogs.

- To manage risks posed by snakes, the management at CHAU should establish procedures for handling and identifying poisonous snakes; cutting long grass, clearing bushes and shrubs; and installing adequate lighting for the night-time.
- To prevent cuts to managers, workers, students, infant children, visitors, and contractors, CHAU should approve procedures for handling sharp instruments; procedures for identifying and repairing chipped equipment, tools, and furniture; and procedures for disposing of sharp instruments and damaged equipment.
- To manage the risk of road traffic accidents, the management at CHAU should train drivers on road safety; regularly service and maintain all University vehicles; prioritise stress management for all drivers; and employing adequate drivers.
- To protect lecturers from physical attack by students, the University should establish a fair grievance procedure for students and an efficient appeal process.
- To manage electrical hazards, the University should make the University caretaker solely responsible for repairing and maintaining all electrical faults; establish procedures for inspecting, identifying, and repairing electrical faults and hazards; establish procedures for reporting electrical faults; prohibiting students from cooking in their hostels, and enclosing the University generator.
- To ensure that there is prompt treatment of injured workers, students, infant learners, visitors, and contractors, the University should establish a red cross society to provide first aid training to all members of the University community.

8.3.3.17 Managing chemical hazards

The chemical hazards at CHAU should be managed as follows:

- Asbestos: To manage the risks posed by asbestos, the University should replace all asbestos roofing sheets with safer alternatives on all existing buildings; use safer roofing materials on new buildings; and develop procedures for handling asbestos.
- Laboratory chemicals: To manage laboratory chemicals, CHAU should establish laboratory safety rules; frequently review laboratory rules; establish procedures for handling laboratory chemicals; develop procedures for monitoring adherence to laboratory safety rules; sensitise workers and staff on laboratory safety rules; and effectively communicate and display laboratory safety rules.
- Dust: To manage the risks posed by dust, the University should subcontract a cleaning company to constantly clean offices and classrooms; replace black boards with white boards; improve ventilation in all University buildings; and pave the dusty areas of the University.

8.3.3.18 Managing biological hazards

The biological hazards at CHAU should be managed as follows:

- Poor sewer system: To negate the risks posed by the poor sewer system, the University should overhaul the whole sewer system at CHAU and chlorinate the water, at all times.
- Erratic water supply: To manage the risks posed by erratic water supply, the University should drill more boreholes and increase water storage capacity using overhead tanks.
- Indiscriminate sexual relations: This should be managed by sensitising students on sexual health; providing access to birth control pills and condoms; and providing voluntary free testing for HIV and other sexually transmitted infections.
- Overcrowding in classrooms: This should be managed by enrolling students based on the capacity of the classrooms at CHAU; building more and bigger classrooms; and establishing procedures for managing overcrowded classes.
- Diseases caused by dogs: The biological risks posed by dogs should be managed by executing rabid dogs; vaccinating all domesticated dogs; establishing procedures for handling stray dogs; and securing the University premises with a fence.
- Mosquitos: CHAU should fumigate the University premises; cut long grass around the University; drain or treat all ponds with stagnant water; and distribute mosquito nets to staff and students at the University.

8.3.3.19 Managing psychosocial hazards

The following is how CHAU should manage psychosocial hazards at the University:

- Sexual violence and harassment: The University should establishment a policy on sexual violence and harassment. The policy should clearly define sexual violence and harassment and provide convenient procedures for victims to report.
- Abnormal workload and long working hours: This should be managed as follows: establishing an acceptable lecturer – student ratio for CHAU; enrolling students in line with the said ratio; rightsizing the staff establishment at CHAU; and matching annual intakes to the staff establishment.
- Alcohol and drug abuse: CHAU should establish a counselling centre where the University should be offering confidential counselling services to staff and students.

8.4 CHAPTER SUMMARY

This chapter has presented the proposed OHS policy for CHAU. It has proposed what the University should do in three key sections of the policy, and these are: the health and safety policy statement; the organisation of OHS at CHAU; and the arrangements for implementing the

University's OHS policy. The appropriate OHS policy was proposed after considering the information obtained from reviewing the following: OHS policies developed by other universities within and outside Africa; international best practices in the design of enterprise level OHS policy; legal and regulative requirements in Zambia; and responses from the informants involved in this study. The proposed policy is proactive and provides guidelines for the entire University. The policy has been proposed in such a way that it responds to the prevailing circumstances at CHAU as recommended by international best practices in OHS management. This proposed policy is strictly for CHAU and may not be appropriate for another university in Zambia or elsewhere. Given that the proposed policy considered the prevailing hazards and challenges at CHAU, it should enable CHAU to proactively manage OHS.

The next chapter is the conclusive chapter of this thesis. It focuses on reviewing whether the research objectives of the study were attained and provides the conclusions of the study as well as recommendations for future researchers, academics, policy analysts, education administrators, politicians, and the general citizenry.

CHAPTER 9 CONCLUSIONS AND RECOMMENDATIONS

9.1 INTRODUCTION

The previous chapter proposed an appropriate policy that would promote OHS management at CHAU. The proposed OHS policy is the significant contribution of this study to bridge the research gap identified in Chapter One of the thesis. The purpose of this final chapter is to present conclusions and recommendations of this thesis. To achieve this, the chapter is divided into six sections. Section one is the introduction of the chapter, while section two reaffirms the purpose and objectives of the study. Section three describes the key findings of the study and section four presents the conclusions of the thesis. Section five discusses the areas of future research, while the last section presents the recommendations of the thesis.

9.2 REFLECTION OF THE STUDY: RESEARCH OBJECTIVES, RESEARCH QUESTIONS, AND CENTRAL THEORETICAL STATEMENTS

In Section 1.4, it was established that the main objective of the study was to develop an OHS policy for CHAU that would promote the health and safety of workers. To attain the main objective, the study focused on addressing the following specific objectives:

- **RO1:** Review the theoretical underpinnings relevant for the development of public policy.
- **RO2:** Review best practices in the design of enterprise level OHS policy.
- **RO3:** Identify and describe the legal and institutional framework guiding the management of OHS in Zambia with respect to the development of enterprise level OHS policy.
- **RO4:** Establish the current OHS profile for CHAU.
- **RO5:** Propose an appropriate policy that would promote OHS management at CHAU.

The research objectives presented above formed the basis on which the research questions of the study were formed. The overall research question of the study was: What might be the best OHS policy for CHAU that would promote the health and safety of workers? To address the overall research question, the study sought to answer the following specific research questions:

- **RQ1:** What are the theoretical underpinnings relevant for the development of policy?
- **RQ2:** What are the best practices in designing an enterprise level OHS policy?
- **RQ3:** What are the legal and institutional framework guiding the management of OHS in organisations operating in Zambia?
- **RQ4:** What is the current OHS management profile for CHAU?
- **RQ5:** What appropriate policy can be proposed to improve OHS management at CHAU?

The following central theoretical statements were made in the development of an OHS policy specific to CHAU:

- **CTS 1:** Organisations of every size, type, and nature have occupational hazards and risks (Hughes & Ferrett, 2016:2; ILO, 2018:1). As such, all organisations should develop mechanisms for alleviating occupational accidents and diseases. Internationally, the recommended starting point for any organisation that seeks to manage OHS is the development of an OHS policy (ILO, 2009a:6; ISO, 2018:9). This is because an OHS policy enables an organisation to come up with guidelines of how everyone in the organisation can contribute to alleviating occupational hazards and risks (ILO, 2009a:5-6; Hughes & Ferrett, 2016:51-52; ANSI, 2017:5-6; ISO, 2018:9). Additionally, an OHS policy enables the organisation to manage OHS proactively, rather than reactively (ILO, 2009a:11). Therefore, CHAU should develop an OHS policy.
- **CTS 2:** The first-time development of an OHS policy for any organisation should be preceded by an initial status review (Labour Department, 2002:18). The initial status review should establish the status of OHS management in an organisation. This must be followed by the determination of how workers and other individuals will be protected from occupational hazards and risks (Labour Department, 2002:18; ILO, 2009a:10). Thus, an initial status review for CHAU is necessary to determine how best the University can manage OHS.
- **CTS 3:** The effective development of an OHS policy requires strong commitment from the top management of an organisation. Without top management support, the process of developing an OHS policy is likely to be futile (Cockburn, 2012:18; Reese, 2017:37; Perez, 2019:49; McKinnon, 2020:73-74). Thus, top management at CHAU should be consulted when developing an OHS policy for the University.
- **CTS 4:** When developing an OHS policy, there should be collaboration and consultation among managers, workers, and other stakeholders (ILO, 2009a:6-7; ISO, 2018:10-11). This is to enable stakeholders, other than managers, to have an input in the development of an OHS policy. Thus, workers, managers, and other stakeholders will be consulted in the process of developing an OHS policy for CHAU.
- **CTS 5:** All organisations are different and unique in their own way. As such, each organisation should develop its own OHS policy that responds to its peculiarities such as the nature of hazards, legal requirements, and institutional strengths and weaknesses, among others (Hughes & Ferrett, 2016:2). In view of the foregoing, an OHS policy appropriate to CHAU should be developed.
- **CTS 6:** There is no internationally agreed upon design for an OHS policy. However, most enterprise level OHS policies tend to have three major components as follows: policy statement; organisation of health and safety; and arrangements for health and safety

(Taylor *et al.*, 2004:65; Stranks, 2006:197; Hughes & Hughes, 2008:47; Hughes & Ferrett, 2016:51; Reese, 2016:425; McKinnon, 2020:53; Canadian Centre for Occupational Health & Safety [CCOHS], 2021). Therefore, the OHS policy for CHAU should have the said three major components.

- **CTS 7:** The design of OHS policies for universities in Africa and other continents can offer imperative lessons to the design of an OHS policy for CHAU.
- **CTS 8:** Policy formulation theories offer useful lessons on determining factors that influence the content of public policies.
- **CTS 9:** The formulation of public policies is supported by national legislative and administrative requirements.

9.3 LINK BETWEEN RESEARCH OBJECTIVES, RESEARCH QUESTIONS, AND CENTRAL THEORETICAL STATEMENTS

The problem that necessitated this study, as stated in Section 1.3 of this thesis, is the absence of an OHS policy at CHAU to provide a systematic mechanism for managing occupational hazards and risks at the University. Consequently, the study sought to propose an appropriate policy that would promote OHS management at CHAU. Furthermore, the study set out to answer five specific research objectives and research questions as presented in sections 1.4 and 1.5, respectively. To achieve its aim and answer the objectives and research questions, the study reviewed the following: relevant theories and literature pertaining to OHS as well as policy development; Zambian health and safety legal and administrative requirements; OHS policies from universities within and outside Africa; and responses from semi-structured interviews administered to key informants involved in this study. Each specific objective and research question of this study was answered using one or more chapters as presented in Table 9.1 below.

Table 9-1: Link between research objectives, research questions, and central theoretical statements

Research objective	Research question	Chapter linked to	CTS linked to
RO1: To review the theoretical underpinnings relevant for the development of public policy.	RQ1: What are the theoretical underpinnings relevant for the development of policy?	Chapter 2	CTS 8
RO2: To review best practices in the design of enterprise level OHS policy.	RQ2: What are the best practices in designing an enterprise level OHS policy?	Chapters 3	CTS 1, CTS 2, CTS 3, CTS 4, CTS 5, CTS 6, CTS 7
RO3: To identify and describe the legal and institutional framework guiding the management of OHS in Zambia with respect to the	RQ3: What are the legal and institutional framework guiding the management of OHS in organisations operating in Zambia?	Chapter 4	CTS 9

development of enterprise level OHS policy.			
RO4: To establish the current OHS profile for CHAU.	RQ4: What is the current OHS management profile for CHAU?	Chapters 5, 6, and 7	CTS 2, CTS 3, CTS 4, CTS 5, CTS 6, CTS 7, CTS 8, CTS 9
RO5: To propose an appropriate policy that would promote OHS management at CHAU	RQ5: What appropriate policy can be proposed to improve OHS management at CHAU?	Chapter 8	CTS 2, CTS 3, CTS 4, CTS 5, CTS 6, CTS 7, CTS 8, CTS 9

Source: Researcher's own creation

9.4 SUMMARY OF MAIN CHAPTERS

The introductory chapter of the thesis presented the orientation of the study. It outlined the background of the study, problem statement, research objectives and questions, aim of the study, central theoretical statements, research methodology, significance of the study, dissemination of the research findings, chapter outline, and chapter summary. The second chapter of this thesis was focused on reviewing relevant theories that seek to explain the determinants of public policy. Additionally, the chapter reviewed literature pertaining to the nature of OHS and public policy. The third chapter reviewed literature on international best practices on the design of enterprise level OHS policies. Furthermore, the chapter reviewed OHS policies of universities within and outside the African continent. The purpose of the fourth chapter was to review the OHS legal and institutional framework for Zambia. To achieve its purpose, the chapter reviewed the relevant OHS laws and policies in Zambia, among others. Chapter five presented empirical evidence focusing on the nature of hazards, accidents, and incidents prevalent at CHAU. Chapter six focused on analysing empirical evidence on how CHAU managed OHS in the absence of a policy. The seventh chapter used empirical evidence to establish what the informants of the study believed would be the required OHS policy for CHAU. The penultimate chapter, chapter eight, proposed an appropriate OHS policy that would ultimately aim to promote health and safety at CHAU. Chapter nine provided the summary of this thesis. Below is a concise summary of how the different chapters have contributed to attaining the overall research goal of this study.

9.4.1 Chapter 1: Introduction and orientation of the study

The chapter revealed that OHS was chosen as the main focus of this thesis because it is an important discipline that focuses on the health and safety of workers in all types of organisations. The chapter also established that CHAU was chosen as the relevant case of this study due to a number of reasons, including the following: the University has no OHS policy; it is a public University; and the University is not compliant to international best practices in OHS management. Chapter one also stated that although universities are generally viewed to be safe, there are a

number of hazards that their workers and students are exposed to. As such, it is imperative for them to put in place OHS measures to prevent occupational accidents and diseases.

The research problem of the study was also stated in the orientation chapter. The main problem that was identified is the lack of an OHS policy at CHAU, which meant that the University did not have a systematic mechanism for managing occupational hazards and risks. As such, the chapter stated that the main objective of the thesis is to develop a policy that would be appropriate for managing OHS at CHAU. In Chapter One, it was also stated that the OHS policy to be developed should be comprehensive, proactive, and appropriate to the circumstances prevailing at CHAU.

9.4.2 Chapter 2: Theoretical framework and literature review: public policy and occupational health and safety

The second chapter is linked to RO1, RQ1, and CTS8. It focused on presenting the theoretical framework and literature review. The chapter stated that in order to have a better understanding of public policy, there was need to review the theory of public administration. This is because of the fact that public administration and public policy are closely linked. Therefore, the chapter reviewed how public policy has evolved together with the evolution of public administration. Furthermore, chapter two revealed that this study was guided by five theories of public policy, namely: Elite Theory; Institutional Theory; Rational Choice Theory; Systems Theory; and Group theory. Moreover, the chapter reviewed literature on public policy. It unveiled that defining public policy is challenging because it means different things to different people. The foregoing notwithstanding, in the said chapter, the study adopted the following definition of public policy *“a deliberate course of action propelled by the collective efforts of state and non-state actors with the aim of solving specific public problems or protecting specific public interests.”*

Chapter two also reviewed literature on OHS. It revealed that the definition of OHS is multidimensional because it cuts across all sectors where humans are required to work. In addition, the chapter established that OHS management is as old as humanity as it can be traced back to the early human societies such as the hunter-gatherer society. The second chapter also indicated that mechanisms for OHS management have evolved from reactive approaches before the 1970s to proactive ones following the publication of the Robens' report and the subsequent enactment of the Health and Safety at Work etc Act of 1974.

The second chapter further revealed that there are several occupational hazards that exist in workplaces and that establishing a comprehensive list consisting of all hazards is a tall order. As such, there are categories of occupational hazards that have been created to make it easier to keep a record. These categories are: accident hazards; physical hazards; chemical hazards; biological hazards; ergonomic hazards; and psychosocial hazards. Lastly, the chapter confirmed

that there are three main arguments that justify the management of OHS at work and these are: moral justification; legal justification; and financial justification.

9.4.3 Chapter 3: Review of best practices in the design of enterprise level occupational health and safety policy

The third chapter is linked to RO2, RQ2, CTS 1, CTS 2, CTS 3, CTS 4, CTS 5, CTS 6, and CTS 7. It reviewed literature on the following: general design of enterprise level OHS policy; design of OHS policy for parastatals in Zambia; design of OHS for universities in Australia, Canada, England, Ghana, Hong Kong, Nigeria, South Africa, UAE, USA, and Zimbabwe. The chapter revealed that for any organisation that seeks to develop an OHS policy for the first time, there has to be an initial status review to establish the profile of that organisation. Particularly, the initial status review should be a consultative process that should incorporate the views of various stakeholders within and outside the organisation. Additionally, the initial status review should identify the legal obligations of the organisation, the occupational hazards and risks prevailing in that organisation, and the plans to alleviate the OHS challenges in the organisation.

The chapter stated that an OHS policy is the ultimate embodiment of management's commitment to OHS. Top management should be strongly committed to OHS for an organisation to successfully protect its workers from occupational accidents and risks. The chapter also revealed that an OHS policy is the starting point for any efforts by an organisation to establish a management system that focuses on OHS. It was also revealed that the internationally recognised management system for OHS is the PDCA model, which makes it easier for organisation to integrate OHS with other systems. In chapter three, it was also established that there is no universally agreed upon format for writing an OHS policy for an enterprise. However, generally, most policies tend to have the following three main components: health and safety policy statement; organisation of health and safety; and arrangements for health and safety. The chapter also revealed that university OHS policies that were reviewed generally had the aforementioned three components.

9.4.4 Chapter 4: Zambia's occupational health and safety legal and administrative framework

The fourth chapter is affiliated to RO3, RQ3, and CTS 9. It focused on reviewing the legal and administrative framework that guides the management of OHS in Zambia. The chapter revealed that Zambia has a number of laws that provide for the management of OHS in organisations. Key among them are the Factories Act of 1967, Occupational Health and Safety Act of 2010, and Employment Code Act of 2019. In the said chapter, it was confirmed that Zambia does not have a law that mandates organisations to develop an OHS policy. However, the law compels every organisation to ensure that they put in place measures to protect workers from occupational

accidents and diseases. For instance, every organisation that has ten or more employees is required by law to establish an OHS committee to promote consultation and collaboration. Furthermore, organisations are required to provide the following: first aid boxes, firefighting equipment, clean and sufficient water, clean toilets and bathrooms, PPEs at no cost to workers; medical services; and rails on stairs, among others. It was also revealed that most of the OHS laws in the country fall short of international standards. Additionally, it was revealed that the laws are somewhat contradictory to one another.

In addition to the legal legislative and regulatory framework, the chapter revealed that Zambia had a number of institutions that provide guidance for OHS management in the country. Key among them is the OHSI which is responsible for overseeing the management of OHS in all sectors of the country. The chapter also established that the institutions responsible for OHS management have overlapping functions, which make it difficult for them to perform.

9.4.5 Chapter 5: Review of occupational hazards, accidents, and incidents prevalent at Chalimbana University: empirical evidence

Chapter five is associated with RO4, RQ4, CTS 2, CTS 3, CTS 4, CTS 5, CTS 6, CTS 7, CTS 8, and CTS 9. Chapter five focused on establishing the occupational hazards, accidents, and incidents that are prevalent at CHAU. The chapter revealed that the informants of this study understood what an OHS policy is as they were generally able to define it. The chapter also established that CHAU had not been able to develop an OHS policy because the top management had not made it a priority. Chapter five further revealed that there were several hazards that existed at CHAU. These were grouped into five major categories as follows: physical hazards; chemical hazards; biological hazards; ergonomic hazards; and psychosocial hazards. In addition, the chapter also identified the occupational accidents and incidents that had afflicted the members of the University community.

9.4.6 Chapter 6: Analysis of the current occupational health and safety management at Chalimbana University: empirical evidence

Chapter six is linked to RO4, RQ4, CTS 2, CTS 3, CTS 4, CTS 5, CTS 6, CTS 7, CTS 8, and CTS 9. This chapter sought to establish the current state of OHS management at CHAU. The chapter established that there was no formalised OHS management system at CHAU. Furthermore, it revealed that the University had not formally allocated OHS responsibilities to managers, workers, students, visitors, and contractors. The foregoing notwithstanding, the chapter discovered that the said categories of individuals had performed some OHS responsibilities. However, the said responsibilities were only consistently performed during the COVID-19 pandemic.

The sixth chapter revealed that the following had performed some OHS responsibilities during the COVID-19 pandemic: VC, DVCs; Registrar; top level managers; OHS committee; middle level managers; University caretaker; University matron; staff; students; Chalimbana University police post; visitors; and contractors.

The chapter also uncovered that despite CHAU not having an OHS management system in place, the University had certain measures that it used to manage OHS. However, these measures were uncoordinated and lacked formal processes and procedures. For example, while the University had put in place fire extinguishers around the campus, there were no processes and procedures for training workers and students on how to use them. Furthermore, this chapter revealed that there were a number of challenges that hampered the management of OHS at CHAU. These included the following: lack of OHS training programmes; lack of review of existing OHS guidelines; inadequate funding; poor OHS communication; negative OHS culture; and lack of emergency procedures; among others.

9.4.7 Chapter 7: Analysis of the required occupational health and safety policy for Chalimbana University: empirical evidence

Chapter seven is linked to RO4, RQ4, CTS 2, CTS 3, CTS 4, CTS 5, CTS 6, CTS 7, CTS 8, and CTS 9. The chapter focused on establishing the views of the informants on what they believed should be the appropriate OHS policy for CHAU. This chapter further revealed that the informants of the study believed that CHAU needed to develop an OHS policy due to the following: to establish a university-wide approach to OHS management; to enhance the public image of the University; to protect all members of the University community from occupational accidents and diseases; to enable the University to adhere to its legal obligations; to enable the University to be proactive, rather than reactive, in OHS management; to provide mechanisms for reviewing OHS regulations at the University; and to provide guidelines for compensating workers at CHAU. The said chapter also established the views of the informants on the three main components of the OHS policy for CHAU. These were OHS policy statement, organisation of OHS, and arrangements for OHS.

9.4.8 Chapter 8: Proposed occupational health and safety policy for Chalimbana University

Chapter eight is linked to RO5, RQ5, CTS 2, CTS 3, CTS 4, CTS 5, CTS 6, CTS 7, CTS 8, and CTS 9. The chapter focused on proposing an appropriate policy for OHS management at CHAU. It established that before proposing an OHS policy for CHAU, there was need to provide a discussion on the public policy development process. The eighth chapter proposed an appropriate OHS policy for CHAU by collating information from the literature review, national legal and administrative requirements, OHS policies for other universities, and views of the informants.

Thus, triangulation took place as an important element of the study. The OHS policy that was proposed is comprehensive as it provides guidelines on managing OHS for the entire University. Additionally, the policy is proactive because it has mechanisms for anticipating OHS hazards rather than waiting for them to happen. Furthermore, the proposed policy is anchored by recommendations on international best practices such as leadership commitment, scheduled review, consultation and collaboration, communication, training, emergency preparedness, hazard identification and risk assessment, among others. The OHS policy will be anchored by the PDCA model, as it would make it easier to integrate OHS with other management systems.

9.5 POLICY RECOMMENDATIONS

The thesis unearthed a number of concerns in the management of OHS in Zambia that need to be addressed. In view of the foregoing, the study made a number of recommendations that have the potential to improve how OHS is managed in the country.

9.5.1 Implementation of the national occupational health and safety policy

The national OHS policy for Zambia was launched in the year 2023. Its absence has been a source of a number of challenges in the management of OHS in Zambia. For example, in the absence of the policy, the country did not have a standard that was adopted for managing OHS in organisations operating in Zambia. Now that it has been developed, the OHS policy should be implemented expeditiously. The implementation of the OHS policy should be well coordinated and publicised to ensure that all relevant stakeholders are aware that the country now has a national OHS policy. Without stakeholders being aware, the implementation of the policy would be futile.

9.5.2 Restructure occupational health and safety institutions

In Zambia, it has been established that the organisations responsible for OHS management such as MSD, OSHSD, and WCFCB have overlapping functions. This causes confusion and uncertainty on the part of organisations as they struggle to determine which institution to report certain OHS matters to. Additionally, the said institutions also duplicate each other's functions. This situation creates confusion about which institution should perform which functions. Furthermore, there is no coordination among the above-mentioned institutions. As such, the government should restructure the aforesaid institutions to create coordination among them and curtail the overlapping and duplication of functions.

9.5.3 Review occupational health and safety laws

The OHS laws in Zambia are not compatible with international standards in OHS management. For example, the OHS laws in Zambia have not made the development of an enterprise level

OHS policy mandatory. In addition, OHS laws in Zambia do not cover accidents that happen to workers in transit to and from work. As such, the Zambian Government should review all the OHS laws to ensure that they are compatible with international standards that promote best practices in OHS management.

9.5.4 Establish a national data base

Despite having a number of institutions responsible for OHS management in Zambia, the country lacks a national data base where all relevant information such as hazards, diseases, deaths, injuries, and other statistics can be recorded. As such, information on the OHS situation in the country is fragmented, inconsistent, and incomplete. This means that it is difficult for the relevant government institutions to determine the accurate state of OHS in Zambia. In view of the foregoing, the government should establish a national data base, which could be situated at a convenient institution.

9.5.5 Establish more occupational health and safety training programmes

One of the major OHS challenges in Zambia is that there are few workers who possess OHS skills. One major cause of the foregoing is that there are very few universities and colleges that offer training programmes in OHS management. This lack of skilled labour in OHS has made it difficult for organisations to identify and employ competent individuals in OHS management. Thus, the government should stimulate initiative in both public and private institutions of higher learning to develop training programmes in OHS.

9.5.6 Employ more occupational health and safety inspectors

Another challenge to OHS management in Zambia is the lack of adequate inspectors. The OSHSD at the Ministry of Labour and Social Services has for a very long time grappled with the lack of sufficient inspectors. This has made it challenging for the said ministry to conduct countrywide OHS inspections. As such, a number of organisations have been getting away with poor OHS management and non-compliance, in some cases. Therefore, the government should increase funding to the Ministry of Labour and Social Services to allow the Ministry to employ more inspectors.

9.6 AREAS FOR FURTHER RESEARCH

This study was confined to developing an OHS policy for CHAU. As a result, its focus was on reviewing international best practices on developing an OHS policy for an organisation in general, and a university in particular. From the foregoing, it is clear that this thesis only addressed a narrow scope. This means that there are several other areas for further research. For example, future research may focus on the effective implementation framework for an OHS policy at CHAU

or any public university in Zambia. Additionally, future research may focus on evaluating the effectiveness of OHS policy at CHAU and other public universities in Zambia. Furthermore, future research may focus on investigating the effectiveness of OHS laws in ensuring compliance to OHS regulations in Zambian universities.

9.7 FINAL CONCLUSION OF THE STUDY

The chapter has presented the conclusions and recommendations of the study. The study established that developing a comprehensive and proactive OHS policy enables an organisation to improve its ability to protect workers and other stakeholders from occupational hazards and risks. The study also found that an OHS policy for a university should generally have three main components as follows: health and safety policy statement; organisation of OHS; and arrangements for OHS. Therefore, this study proposed a comprehensive and proactive OHS policy for CHAU consisting of the aforesaid three components.

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ANNEXES

Annexure A: Ethical Clearance Approval



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Basic and Social Science Research Ethics Committee (BaSSREC)

Faculty of Humanities

Tel: 018 299 1586

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30 November 2022

APPROVAL FOR CONTINUATION OF THE RESEARCH STUDY

Ethics number: NWU-00956-22-A7

Study title: Developing an Occupational Health and Safety Policy for Chalimbana University

Study leader/supervisor: Prof M Diedericks

Student: M Chewe 36506192

Application type: Single Study

Risk level: Low risk

Dear researcher

You are kindly informed that this application was reviewed for monitoring at the meeting of the North-West University Basic and Social Science Research Ethics Committee (BaSSREC), Faculty of Humanities, North-West University, held on 30/11/2022. Following the review of the application, it has been decided that the study is approved for continuation.

Suspension	
Continuation	X
Termination	

Approval date: 30/11/2022

Expiry date: 30/11/2023

If you have any questions or need further assistance, please contact BaSSREC.

Yours sincerely

A handwritten signature in black ink, appearing to be 'Erhabor Idemudia', is written over a horizontal line.

Professor Erhabor Idemudia Chairperson: NWU-BaSSREC

Current details: (23239522) G:\My Drive\9. Research and Postgraduate Education\9.1.5.3 Letters Templates\9.1.5.3.6_Gatekeepers_Letter_HREC.docm
30 April 2018

File reference: 9.1.5.3.6

Annexure B: Informed Consent



Building F13, Room 116
Basic and Social Sciences Research Ethics Committee (BaSSREC)
21081719@nwu.ac.za

DATE:

BaSSREC Authorization

PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM

Title of the research project	Developing an Occupational Health and Safety Policy for Chalimbana University
Ethics number	NWU-00956-22-A7
Principal investigator	Moses Chewe
Student number	36506192
Address	New Avondale, House # 12006, Simon Mwansa Kapwepwe Rd, Lusaka
Email address	moseschewe@gmail.com
Contact number	+260977164434 (Zambia)

You are being invited to take part in a research project that forms part of my PhD studies at the North-West University in South Africa. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research is about and how you could be involved. Also, your participation is **entirely voluntary**, and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any

point, even if you do agree to take part. Prior to publication of the study's results (or the point that publication is in process), you may also withdraw the data you generate.

This study has been approved by the **Basic Social Sciences Research Ethics Committee (BaSSREC) of the Faculty of Humanities of the North-West University (NWU – Potchefstroom Campus)** and will be conducted according to the ethical guidelines and principles of the international Singapore Statement on Research Integrity (2010) and the ethical guidelines of the National Health Research Ethics Council. It might be necessary for the research ethics committee members or relevant authorities to inspect the research records to make sure that we (the researchers) are conducting research in an ethical manner.

What is this research study all about?

- This study is aimed at developing an occupational health and safety policy for Chalimbana University and will involve the use of interview guides to collect data.
- The researcher has been trained to use the methods mentioned in the previous sentence.
- Approximately 31 participants will be included in this study.
- The objectives of this research are:
 - Review the theoretical underpinnings relevant for the development of public policy.
 - Review best practices in the design of enterprise level OHS policy.
 - Identify and describe the legal and institutional framework guiding the management of OHS in Zambia with respect to the development of enterprise level OHS policy.
 - To establish the current OHS profile for CHAU.
 - To propose an appropriate policy that would promote OHS management at CHAU.

Why have you been invited to participate?

- You have been invited to participate because you have relevant information relating to occupational health and safety management.
- You have also complied with the following inclusion criteria: you work in an organisation which belongs to one of the sectors that have the highest occupational health and safety accidents and illnesses.
- You will be excluded if you do not have any information relating to occupational health and safety management.

What will your responsibilities be?

- You will be invited to participate in the noted study by responding to interview questions.
- You will have five days/weeks to indicate whether you would be willing to participate.
- You will be requested to sign this Informed Consent Statement before the commencement of the study.

Will you benefit from taking part in this research?

- The direct benefits for you as a participant will probably be that you will gain more knowledge on how occupational health and safety can be managed.
- The indirect benefit will probably be that you will contribute to the generation of knowledge that can be used to improve occupational health and safety management in Zambia.

Are there risks involved in your taking part in this research and how will these be managed?

The possible risks in this study, and how these will be managed, are summarised in the table below:

Possible risk	Mitigation strategy
COVID 19 risk during face-to-face interviews.	Strict adherence to COVID-19 guidelines that include wearing of face masks throughout, social distancing and regular hand sanitising
Emotional distress of the participants.	It is less likely that participants will suffer any emotional distress
Tiredness and discomfort.	Comfort breaks of 10 minutes will be taken after every hour
Lack of privacy and comfort during interviews	Participants will be interviewed in an environment where they will be most comfortable and free to give their responses

- However, we do believe that the benefits to you and to science (as noted in the previous section) outweigh the risks we have listed. If you disagree, then please feel free not to participate in this study. We will respect your decision.
- Should we learn, in the course of the research, that someone is harming you, or that you are intending to harm someone, then we must tell someone who can help you/warn the person you are intending to harm.

Who will have access to the data?

- The *handling, storage, security and analysis of data* is critical in ethical considerations. I will ensure data in both hard-(printed) and soft copy (electronic) are safely locked away and password-protected, respectively. Only approved people in my research team (*if applicable*) will/may have access to my raw data where the need arises. At the analysis stage, as will be the case throughout, the use of coding will reinforce participants' non-identification, hence upholding the assurance of confidentiality and anonymity.
- *Anonymity* will be ensured by choosing your own fictitious names/I will assign a fictitious name to you before the interview starts. Only this name will be used in the research process.
- *Confidentiality* will include the use of pseudonyms for participants, organisations and locations. It involves not disclosing any information gained from an interviewee deliberately or accidentally in ways that might identify an individual or organisation.

- *Privacy* will be ensured by not probing unnecessarily if you do not wish to discuss particular matters.
- I will not use a *transcriber* for the purpose of the transcripts after the interview. I will be responsible for transcribing the data – no other person will have access to the data.
- I will not use a *translator/interpreter* for the purpose of the interviews/explaining the informed consent, etc.
- The data will be *stored safely in electronic form* for a period of five years after which it will be destroyed.

What will happen to the data?

The data from this study will be reported in the following ways: it will be analysed using qualitative analysis methods and used it will be used to write a thesis which is a requirement for the completion of my PhD studies. In all of this reporting, you will not be personally identified. This means that the reporting will not include your name or details that will help others to know that you participated such as your address or the name of your organisation.

This is a once-off study, so the data will not be re-used.

Will you be paid/compensated to take part in this study and are there any costs involved?

No, you will not receive any payment to take part in the study and it will cost you nothing to be part of the study.

How will you know about the findings?

- The general findings of the research will be shared with you by electronic copy.
- If you would like feedback on your personal results, then you can contact me on the details provided below.

Is there anything else that you should know or do?

- You can call Moses Chewe on +260977164434 or email him using moseschewe@gmail.com if you have any further queries or encounter any problems.
- You can contact the chair of the Basic Social Sciences Research Ethics Committee (Prof Jacques Rothmann) at 018 299 1595 or 21081719@nwu.ac.za if you have any concerns or complaints that have not been adequately addressed by the researcher.
- You will receive a copy of this information and consent form for your own records.

Declaration by participant

By signing below, I _____ agree to take part in a research study entitled: “Developing an Occupational Health and Safety Policy for Chalimbana University”.

I declare that:

- I have read and understood this information and consent form and it is written in a language with which I am fluent and comfortable.

- I have had a chance to ask questions to both the person obtaining consent, as well as the researcher (if this is a different person), and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I understand that what I contribute (what I report/say/write/draw/produce visually) could be reproduced publically and/or quoted, but without reference to my personal identity.
- I consent to an audio and/or audio-visual recording of the ... (study).
- I am aware of the fact that I may request that the researcher does not continue with said recording if I request it.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.

Signed at (place) _____ on (date) _____ 20____

Signature of participant

Signature of witness

- You may contact me again ☐ Yes ☐ No
- I would like a summary of the findings of this research ☐ Yes ☐ No
- I would like feedback on my functioning/wellbeing as reflected in the questionnaires I completed ☐ Yes ☐ No

The best way to reach me is:

Name & Surname: _____
Postal Address: _____
Email: _____

Phone Number: _____

Cell Phone Number: _____

In case the above details change, please contact the following person who knows me well and who does not live with me and who will help you to contact me:

Name _____ & _____ Surname: _____

Phone/ _____ Cell _____ Phone _____ Number _____ /Email: _____

Declaration by person obtaining consent (if not the researcher)

I (name) _____ declare that:

- I explained the information in this document to _____
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter.

Signed at (place) _____ on (date) _____ 20____

Signature of person obtaining consent

Signature of witness

Declaration by researcher

I (name) Moses Chewe declare that:

- I explained the information in this document to _____
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter.

Signed at (place) _____ on (date) _____ 20____



Signature of researcher

Signature of witness

Personal face-to-face interviews during Covid-19 restrictions

Additional declaration by participant in those instances where the participant requests to participate in a personal face-to-face semi-structured interview:

By signing below, I _____, acknowledge the following information related to the required measures regarding Covid-19:

I declare that:

- It is my personal choice and preference to participate in a personal face-to-face semi-structured interview with the researcher.
- This requires that I consent to the following strict measures to safeguard the personal health and safety of myself and that of the researcher/interviewer/primary investigator:
 - I consent to the researcher taking my temperature before the interview using a thermometer. ☐ Yes ☐ No
 - I confirm that my temperature measured at _____ degrees. ☐ Yes ☐ No
 - I consent to use the three-ply mask provided by the researcher. ☐ Yes ☐ No
 - I consent to wear the three-ply mask for the full duration of the interview. ☐ Yes ☐ No
- I consent to the researcher sanitising the interview context using a sanitiser with an 80% alcohol content before the commencement of the interview. ☐ Yes ☐ No
- I consent to the researcher using a sanitiser with an 80% alcohol content before and during the interview if required. ☐ Yes ☐ No

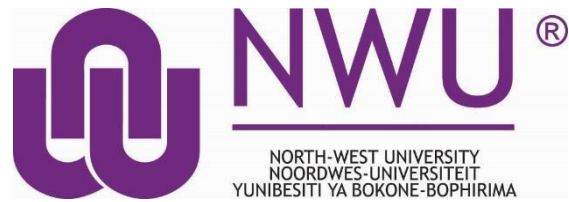
Signed at (*place*) _____ on (*date*) _____ 20

Signature of participant



Signature of researcher

Annexure C: Gatekeepers' Letters – Letter of Introduction



North-West University, Potchefstroom Campus
Faculty of Humanities
Department of Government Studies
53 Borchard Street, Potchefstroom 2531
11 Hoffman Street, Potchefstroom 2531

8th March 2023

TO WHOM IT MAY CONCERN

This is to introduce to you Mr. Moses Chewe student number 36506192 who is a PhD (Social Sciences with Public Management and Governance) student at the North-West University, Potchefstroom Campus in South Africa. His research topic is titled “**Developing an Occupational Health and Safety (OHS) Policy for Chalimbana University.**” As part of his research, he intends to conduct key informant interviews in your organisation.

The main objective of his PhD research is to develop a national OHS policy framework for Chalimbana University to alleviate related challenges pertaining to the health and safety of workers. Before he proceeds with data collection, the University Ethics Committee requires him to get a clearance from the organisations where he intends to collect data from.

Therefore, the purpose of this letter is to seek your permission in writing to allow Mr. Moses Chewe to collect data from your organisation.

Your support in this regard will be highly appreciated.

Kind regards

Prof. M Diedericks (Study supervisor)
Email: Melvin.Diedericks@nwu.ac.za

Mr. Moses Chewe (PhD Researcher)
Email: moseschewe@gmail.com
Cell: +260977164434

Signature:

Signature:

Annexure D: Gatekeeper's Letter – Chalimbana University



Chalimbana University

OFFICE OF THE REGISTRAR
PRIVATE BAG E1
LUSAKA.
Phone: +260 977700161
Email: jerichomichelo@gmail.com

20TH OCTOBER, 2022

The University of Zambia
P.O. Box
LUSAKA

Dear Mr. Chewe,

RE: PERMISSION TO DEVELOP A OCCUPATIONAL HEALTH AND SAFETY POLICY FOR CHALIMBANA UNIVERSITY

On behalf of Chalimbana University Management, I write to inform you that you can use our Institution as your sample in developing a Occupational Health and Safety Policy.

Please feel free to visit the Institution should such a need arise.

Yours faithfully,

Michelo, J. PhD
Acting Registrar
Chalimbana University.

Integrity. Service. Excellence.

Annexure E: Gate Keeper's Letter – Ministry of Education

159

MOE/101/16/2

PUEDs

Kindly attend to this

AAA
ADZE
28/05/2023

2nd May, 2023

Mr. Moses Chewe
C/o University of Zambia
School of Humanities and Social Sciences
Department of Government and Management Studies
P.O Box 32379
LUSAKA

Dear Mr. Chewe,

RE: REQUEST TO CONDUCT RESEARCH: YOURSELF

Reference is made to your letter dated 11th March, 2023 in which you requested for permission to conduct a research interview with an official form Ministry.

I write to inform you that the Ministry of Education has granted you permission to collect data for your research titled "**Developing an Occupational Health and Safety Policy Framework for Chalimbana University**" for research purposes only.

Kindly be informed that the research is purely for academic purposes and you are expected to exhibit high professionalism, confidentiality and being ethical during the period that you will be conducting the research. Be reminded that the research should not interfere with planned programmes and activities in the Ministry.

Kindly be informed.


Kasonde Mwila
Director – HRA
For/PERMANENT SECRETARY-A
MINISTRY OF EDUCATION

gmc

Annexure F: Gate Keeper's Letter – Occupational Health and Safety Institute

 OCCUPATIONAL HEALTH AND SAFETY INSTITUTE
P.O. Box 20205 – Kitwe, Zambia
ALL COMMUNICATION SHOULD BE ADDRESSED TO:
THE DIRECTOR
Telephone: +260-211-222823, 0212 224006, +260 212-228977
Email: olumba@zamnet.zm; info@ohsi.co.zm


Sent on whatsapp on 6/04/22

OH/101/9/1
6 April 2022

Mr. Moses Chew (SB36506192)
North-West University
School of Government Studies
Public Administration
11 Hoffman Street, Potchestroom
SOUTH AFRICA

Dear Sir

RE: REQUEST TO CONDUCT PhD RESEARCH

The above subject matter refers.

We are in receipt of your letter dated 16 March 2022 and copies of your provisional research ethics approval and interview guide for your research topic entitled "Developing a National Occupational Health and Safety (OHS) Policy Framework for Zambia."

I am glad to inform you that management has granted permission to you to collect data from the Institute for research purposes.

At the end of your research, kindly send us a copy of your work for future reference.

Yours faithfully
OCCUPATIONAL HEALTH AND SAFETY INSTITUTE


Dr. Kingsley Ngosa
DEPUTY DIRECTOR

cc. DIRECTOR

Annexure G: Semi-Structured Interview Guide for Top Level Managers at Chalimbana University



Dear Sir/Madam,

PhD Research Interview: An Occupational Health and Safety Policy for Chalimbana University

The above matter refers. Mr Moses Chewa is pursuing research towards a PhD degree in Public Management & Governance at the Potchefstroom Campus of the North-West University, South Africa and would like to solicit your assistance in participating in an interview schedule. The purpose of this research is to investigate the development of an OHS plan for Chalimbana University.

The completion of the interview questionnaire will only take **30 - 45 minutes**. Anonymity of participatory results and confidentiality are guaranteed. Your gender, age, position, experience and qualifications are only required for our records, in order to ease the process of data analysis.

Interview details

Date of the interview _____

Starting time of the interview _____

Location of the interview _____

Gender of Interviewee _____

Job title _____

Level of education _____

Longevity of occupancy _____

QUESTIONS

Section A: Health and safety profile for CHAU

1. In your own words, what is a health and safety policy?
2. Why does CHAU not have a health and safety policy?
3. Are there any active plans to develop a health and safety policy for the University?
4. Answer the following questions:
 - a) What specific hazards exist at CHAU?
 - b) Does the management keep an official record off all hazards prevalent at CHAU?
5. Answer the following questions:
 - a) What is the nature of accidents that have occurred at CHAU?
 - b) Does the management keep an official record of all the accidents that happen at CHAU?
6. Answer the following questions:
 - a) What measures has management put in place to manage occupational hazards and accidents at CHAU?
 - b) What stakeholders were consulted by management before putting in place the measures mentioned in (a) above?
 - c) How often are the measures stated in (a) above reviewed?
 - d) What factors determine the review of the measures stated in (a) above?
 - e) What laws, regulations, and standards guided the development of the measures stated in (a) above?
 - f) What existing policies support the implementation of the measures stated in (a) above?
 - g) What is the scope of the measures stated in (a) above in terms of personnel and physical location?
 - h) In your opinion, how effective have the measures stated in (a) above been in managing occupational hazards and accidents at CHAU?
7. What have been the challenges of managing health and safety at CHAU?

Section B: Current organisation of health and safety at CHAU

8. Who is currently accountable for health and safety at CHAU?
9. Answer the following questions:
 - a) What health and safety responsibilities do you perform by virtue of occupying your current office?
 - b) Are the health and safety responsibilities stated in (a) above officially allocated to your office?

10. What health and safety responsibilities have the following categories of individuals performed at CHAU?
- a) Middle level management
 - b) Lower level management
 - c) Staff
 - d) Students
 - e) Visitors
 - f) Contractors
 - g) Any other, specify
11. What external stakeholders aid CHAU in the management of health and safety?
12. What procedures and processes currently exist at CHAU for the following activities?
- a) Hazard identification and risk assessment
 - b) Consultation with stakeholders
 - c) Communication of health and safety information internally and externally
 - d) Health and safety training
 - e) Accident investigation
 - f) Health and safety reporting
 - g) Emergency procedures
 - h) Any other procedures and processes.

Section C: Preferred health and safety policy for CHAU

13. Does CHAU need a health and safety policy and why?
14. What would be an appropriate policy statement for management to demonstrate acceptance of occupational health and safety responsibility and accountability at CHAU?
15. What commitments would the management at CHAU be willing to make towards each of the following?
- a) Providing a healthy and safe working environment at Chalimbana University?
 - b) Fulfilling Chalimbana University's occupational health and safety legal requirements and other requirements?
 - c) Eliminating hazards and reducing occupational health and safety risks?
 - d) Continual improvement of occupational health and safety management at Chalimbana University?
 - e) Consultation and participation of workers and students and their representatives?
 - f) Encouraging workers to report mistakes, accidents, injuries, illnesses, incidents, and near misses?
 - g) Promoting a positive health and safety culture at Chalimbana University?

- h) Effective communication of occupational health and safety information internally and externally?
 - i) Resources relevant for occupational health and safety management at Chalimbana University?
16. What would be the appropriate health and safety responsibilities of the Council under the policy?
17. What would be the appropriate OHS responsibilities of the following under the OHS policy for CHAU?
- a) Council
 - b) VC
 - c) Top level management
 - d) Middle level management
 - e) Lower level management
 - f) Staff
 - g) Students
 - h) Visitors
 - i) Contractors
18. What would be the appropriate purpose of the CHAU OHS policy?
19. What would be the appropriate specific objectives of the CHAU OHS policy?
20. What would be the appropriate scope for the CHAU OHS policy in terms of personnel and physical location?
21. How often would the CHAU OHS policy need to be reviewed?
22. In your opinion, what factors would necessitate a review of the CHAU OHS policy?
23. Who would be responsible for approving the CHAU OHS policy?
24. What legal and other requirements would the CHAU OHS policy need to fulfil?
25. What appropriate arrangements would need to be established for each of the following?
- a) Hazard identification and risk assessment
 - b) Consultation with stakeholders
 - c) Communication of health and safety information internally and externally
 - d) Health and safety training
 - e) Accident investigation
 - f) Health and safety reporting
 - g) Emergency procedures
 - h) Specify any other

THANK YOU FOR YOUR PARTICIPATION

Annexure H: Semi-Structured Interview Guide for Middle Level Managers at Chalimbana University



Dear Sir/Madam,

PhD Research Interview: An Occupational Health and Safety Policy for Chalimbana University

The above matter refers. Mr Moses Chewa is pursuing research towards a PhD degree in Public Management & Governance at the Potchefstroom Campus of the North-West University, South Africa and would like to solicit your assistance in participating in an interview schedule. The purpose of this research is to investigate the development of an OHS plan for Chalimbana University.

The completion of the interview questionnaire will only take **30 - 45 minutes**. Anonymity of participatory results and confidentiality are guaranteed. Your gender, age, position, experience and qualifications are only required for our records, in order to ease the process of data analysis.

Interview details

Date of the interview _____

Starting time of the interview _____

Location of the interview _____

Gender of Interviewee _____

Job title _____

Level of education _____

Longevity of occupancy _____

QUESTIONS

Section A: Health and safety profile for CHAU

1. In your own words, what is a health and safety policy?
2. Why does CHAU not have a health and safety policy?
3. Are there any active plans to develop a health and safety policy for the University?
4. Answer the following questions:
 - a) What specific hazards exist at CHAU?
 - b) Does the management keep an official record off all hazards prevalent at CHAU?
5. Answer the following questions:
 - c) What is the nature of accidents that have occurred at CHAU?
 - d) Does the management keep an official record of all the accidents that happen at CHAU?
6. Answer the following questions:
 - a) What measures has management put in place to manage occupational hazards and accidents at CHAU?
 - b) What stakeholders were consulted by management before putting in place the measures mentioned in (a) above?
 - c) How often are the measures stated in (a) above reviewed?
 - d) What factors determine the review of the measures stated in (a) above?
 - e) What laws, regulations, and standards guided the development of the measures stated in (a) above?
 - f) What existing policies support the implementation of the measures stated in (a) above?
 - g) What is the scope of the measures stated in (a) above in terms of personnel and physical location?
 - h) In your opinion, how effective have the measures stated in (a) above been in managing occupational hazards and accidents at CHAU?
7. What have been the challenges of managing health and safety at CHAU?

Section B: Current organisation of health and safety at CHAU

8. Who is currently accountable for health and safety at CHAU?
9. Answer the following questions:
 - a) What health and safety responsibilities do you perform by virtue of occupying your current office?
 - b) Are the health and safety responsibilities stated in (a) above officially allocated to your office?

10. What health and safety responsibilities have the following categories of individuals performed at CHAU?
- a) Lower level management
 - b) Staff
 - c) Students
 - d) Visitors
 - e) Contractors
 - f) Any other, specify
11. What external stakeholders aid CHAU in the management of health and safety?
12. What procedures and processes currently exist at CHAU for the following activities?
- a) Hazard identification and risk assessment
 - b) Consultation with stakeholders
 - c) Communication of health and safety information internally and externally
 - d) Health and safety training
 - e) Accident investigation
 - f) Health and safety reporting
 - g) Emergency procedures
 - h) Any other procedures and processes.

Section C: Preferred health and safety policy for CHAU

13. Does CHAU need a health and safety policy and why?
14. What would be an appropriate policy statement for management to demonstrate acceptance of occupational health and safety responsibility and accountability at CHAU?
15. What commitments would top management at CHAU need to make towards each of the following to enhance OHS at the University?
- a) Providing a healthy and safe working environment at Chalimbana University?
 - b) Fulfilling Chalimbana University's occupational health and safety legal requirements and other requirements?
 - c) Eliminating hazards and reducing occupational health and safety risks?
 - d) Continual improvement of occupational health and safety management at Chalimbana University?
 - e) Consultation and participation of workers and students and their representatives?
 - f) Encouraging workers to report mistakes, accidents, injuries, illnesses, incidents, and near misses?
 - g) Promoting a positive health and safety culture at Chalimbana University?
 - h) Effective communication of occupational health and safety information internally and externally?

- i) Resources relevant for occupational health and safety management at Chalimbana University?
16. What would be the appropriate OHS responsibilities of the following under the OHS policy for CHAU?
- a) Middle level management
 - b) Lower level management
 - c) Staff
 - d) Students
 - e) Visitors
 - f) Contractors
17. What would be the appropriate purpose of the CHAU OHS policy?
18. What would be the appropriate specific objectives of the CHAU OHS policy?
19. What would be the appropriate scope for the CHAU OHS policy in terms of personnel and physical location?
20. How often would the CHAU OHS policy need to be reviewed?
21. In your opinion, what factors would necessitate a review of the CHAU OHS policy?
22. Who would be responsible for approving the CHAU OHS policy?
23. What legal and other requirements would the CHAU OHS policy need to fulfil?
24. What appropriate arrangements would need to be established for each of the following?
- a) Hazard identification and risk assessment
 - b) Consultation with stakeholders
 - c) Communication of health and safety information internally and externally
 - d) Health and safety training
 - e) Accident investigation
 - f) Health and safety reporting
 - g) Emergency procedures
 - h) Specify any other

THANK YOUR FOR YOUR PARTICIPATION

Annexure I: Semi-Structured Interview Guide for Lower Level Managers at Chalimbana University



Dear Sir/Madam,

PhD Research Interview: An Occupational Health and Safety Policy for Chalimbana University

The above matter refers. Mr Moses Chewa is pursuing research towards a PhD degree in Public Management & Governance at the Potchefstroom Campus of the North-West University, South Africa and would like to solicit your assistance in participating in an interview schedule. The purpose of this research is to investigate the development of an OHS plan for Chalimbana University.

The completion of the interview questionnaire will only take **30 - 45 minutes**. Anonymity of participatory results and confidentiality are guaranteed. Your gender, age, position, experience and qualifications are only required for our records, in order to ease the process of data analysis.

Interview details

Date of the interview _____

Starting time of the interview _____

Location of the interview _____

Gender of Interviewee _____

Job title _____

Level of education _____

Longevity of occupancy _____

QUESTIONS

Section A: Health and safety profile for CHAU

1. In your own words, what is a health and safety policy?
2. Why does CHAU not have a health and safety policy?
3. Are there any active plans to develop a health and safety policy for the University?
4. Answer the following questions:
 - a) What specific hazards exist at CHAU?
 - b) Does the management keep an official record off all hazards prevalent at CHAU?
5. Answer the following questions:
 - a) What is the nature of accidents that have occurred at CHAU?
 - b) Does the management keep an official record of all the accidents that happen at CHAU?
6. Answer the following questions:
 - a) What measures has management put in place to manage occupational hazards and accidents at CHAU?
 - b) What stakeholders were consulted by management before putting in place the measures mentioned in (a) above?
 - c) How often are the measures stated in (a) above reviewed?
 - d) What factors determine the review of the measures stated in (a) above?
 - e) What laws, regulations, and standards guided the development of the measures stated in (a) above?
 - f) What existing policies support the implementation of the measures stated in (a) above?
 - g) What is the scope of the measures stated in (a) above in terms of personnel and physical location?
 - h) In your opinion, how effective have the measures stated in (a) above been in managing occupational hazards and accidents at CHAU?
7. What have been the challenges of managing health and safety at CHAU?

Section B: Current organisation of health and safety at CHAU

8. Who is currently accountable for health and safety at CHAU?
9. Answer the following questions:
 - a) What health and safety responsibilities do you perform by virtue of occupying your current office?
 - b) Are the health and safety responsibilities stated in (a) above officially allocated to your office?

10. What health and safety responsibilities have the following categories of individuals performed at CHAU?
- a) Staff
 - b) Students
 - c) Visitors
 - d) Contractors
 - e) Any other, specify
11. What external stakeholders aid CHAU in the management of health and safety?
12. What procedures and processes currently exist at CHAU for the following activities?
- a) Hazard identification and risk assessment
 - b) Consultation with stakeholders
 - c) Communication of health and safety information internally and externally
 - d) Health and safety training
 - e) Accident investigation
 - f) Health and safety reporting
 - g) Emergency procedures
 - h) Any other procedures and processes.

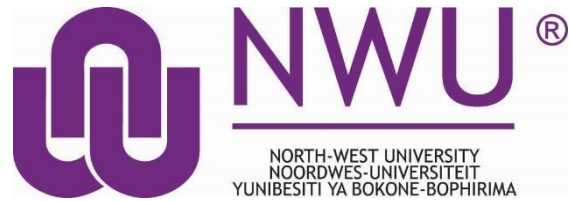
Section C: Preferred health and safety policy for CHAU

13. Does CHAU need a health and safety policy and why?
14. What would be an appropriate policy statement for management to demonstrate acceptance of occupational health and safety responsibility and accountability at CHAU?
15. What commitments would top management at CHAU need to make towards each of the following to enhance OHS at the University?
- a) Providing a healthy and safe working environment at Chalimbana University?
 - b) Fulfilling Chalimbana University's occupational health and safety legal requirements and other requirements?
 - c) Eliminating hazards and reducing occupational health and safety risks?
 - d) Continual improvement of occupational health and safety management at Chalimbana University?
 - e) Consultation and participation of workers and students and their representatives?
 - f) Encouraging workers to report mistakes, accidents, injuries, illnesses, incidents, and near misses?
 - g) Promoting a positive health and safety culture at Chalimbana University?
 - h) Effective communication of occupational health and safety information internally and externally?

- i) Resources relevant for occupational health and safety management at Chalimbana University?
16. What would be the appropriate OHS responsibilities of the following under the OHS policy for CHAU?
- a) Lower level management
 - b) Staff
 - c) Students
 - d) Visitors
 - e) Contractors
 - f) Any other, specify
17. What would be the appropriate purpose of the CHAU OHS policy?
18. What would be the appropriate specific objectives of the CHAU OHS policy?
19. What would be the appropriate scope for the CHAU OHS policy in terms of personnel and physical location?
20. How often would the CHAU OHS policy need to be reviewed?
21. In your opinion, what factors would necessitate a review of the CHAU OHS policy?
22. Who would be responsible for approving the CHAU OHS policy?
23. What legal and other requirements would the CHAU OHS policy need to fulfil?
24. What appropriate arrangements would need to be established for each of the following?
- a) Hazard identification and risk assessment
 - b) Consultation with stakeholders
 - c) Communication of health and safety information internally and externally
 - d) Health and safety training
 - e) Accident investigation
 - f) Health and safety reporting
 - g) Emergency procedures
 - h) Specify any other

THANK YOU FOR YOUR PARTICIPATION

Annexure J: Semi-Structured Interview Guide for Staff Representatives at Chalimbana University



Dear Sir/Madam,

PhD Research Interview: An Occupational Health and Safety Policy for Chalimbana University

The above matter refers. Mr Moses Chewa is pursuing research towards a PhD degree in Public Management & Governance at the Potchefstroom Campus of the North-West University, South Africa and would like to solicit your assistance in participating in an interview schedule. The purpose of this research is to investigate the development of an OHS plan for Chalimbana University.

The completion of the interview questionnaire will only take **30 - 45 minutes**. Anonymity of participatory results and confidentiality are guaranteed. Your gender, age, position, experience and qualifications are only required for our records, in order to ease the process of data analysis.

Interview details

Date of the interview _____

Starting time of the interview _____

Location of the interview _____

Gender of Interviewee _____

Job title _____

Level of education _____

Longevity of occupancy _____

QUESTIONS

Section A: Health and safety profile for CHAU

1. In your own words, what is a health and safety policy?
2. Why does CHAU not have a health and safety policy?
3. Are there any active plans to develop a health and safety policy for the University?
4. Answer the following questions:
 - a) What specific hazards exist at CHAU?
 - b) Does the management keep an official record off all hazards prevalent at CHAU?
5. Answer the following questions:
 - a) What is the nature of accidents that have occurred at CHAU?
 - b) Does the management keep an official record of all the accidents that happen at CHAU?
6. Answer the following questions:
 - a) What measures has management put in place to manage occupational hazards and accidents at CHAU?
 - b) What stakeholders were consulted by management before putting in place the measures mentioned in (a) above?
 - c) How often are the measures stated in (a) above reviewed?
 - d) What factors determine the review of the measures stated in (a) above?
 - e) What laws, regulations, and standards guided the development of the measures stated in (a) above?
 - f) What existing policies support the implementation of the measures stated in (a) above?
 - g) What is the scope of the measures stated in (a) above in terms of personnel and physical location?
 - h) In your opinion, how effective have the measures stated in (a) above been in managing occupational hazards and accidents at CHAU?
7. What have been the challenges of managing health and safety at CHAU?

Section B: Current organisation of health and safety at CHAU

8. Who is currently accountable for health and safety at CHAU?
9. Answer the following questions:
 - a) What are the health and safety responsibilities of staff at CHAU?
 - b) Are the health and safety responsibilities of staff stated in (a) above officially allocated to them?
10. What procedures and processes currently exist at CHAU for the following activities?

- a) Hazard identification and risk assessment
- b) Consultation with stakeholders
- c) Communication of health and safety information internally and externally
- d) Health and safety training
- e) Accident investigation
- f) Health and safety reporting
- g) Emergency procedures
- h) Any other procedures and processes.

Section C: Preferred health and safety policy for CHAU

11. Does CHAU need a health and safety policy and why?
12. What would be an appropriate policy statement for management to demonstrate acceptance of occupational health and safety responsibility and accountability at CHAU?
13. What commitments would top management at CHAU need to make towards each of the following to enhance OHS at the University?
 - a) Providing a healthy and safe working environment at Chalimbana University?
 - b) Fulfilling Chalimbana University's occupational health and safety legal requirements and other requirements?
 - c) Eliminating hazards and reducing occupational health and safety risks?
 - d) Continual improvement of occupational health and safety management at Chalimbana University?
 - e) Consultation and participation of workers and students and their representatives?
 - f) Encouraging workers to report mistakes, accidents, injuries, illnesses, incidents, and near misses?
 - g) Promoting a positive health and safety culture at Chalimbana University?
 - h) Effective communication of occupational health and safety information internally and externally?
 - i) Resources relevant for occupational health and safety management at Chalimbana University?
14. What would be the appropriate OHS responsibilities of the following under the OHS policy for CHAU?
 - a) Staff
 - b) Students
 - c) Visitors
 - d) Contractors
 - e) Any other, specify
15. What would be the appropriate purpose of the CHAU OHS policy?

16. What would be the appropriate specific objectives of the CHAU OHS policy?
17. What would be the appropriate scope for the CHAU OHS policy in terms of personnel and physical location?
18. How often would the CHAU OHS policy need to be reviewed?
19. In your opinion, what factors would necessitate a review of the CHAU OHS policy?
20. Who would be responsible for approving the CHAU OHS policy?
21. What legal and other requirements would the CHAU OHS policy need to fulfil?
22. What appropriate arrangements would need to be established for each of the following?
 - a) Hazard identification and risk assessment
 - b) Consultation with stakeholders
 - c) Communication of health and safety information internally and externally
 - d) Health and safety training
 - e) Accident investigation
 - f) Health and safety reporting
 - g) Emergency procedures
 - h) Specify any other

THAK YOU FOR YOUR PARTICIPATION

Annexure K: Interview Guide for Students' Representatives at Chalimbana University



Dear Sir/Madam,

PhD Research Interview: An Occupational Health and Safety Policy for Chalimbana University

The above matter refers. Mr Moses Chewa is pursuing research towards a PhD degree in Public Management & Governance at the Potchefstroom Campus of the North-West University, South Africa and would like to solicit your assistance in participating in an interview schedule. The purpose of this research is to investigate the development of an OHS plan for Chalimbana University.

The completion of the interview questionnaire will only take **30 - 45 minutes**. Anonymity of participatory results and confidentiality are guaranteed. Your gender, age, position, experience and qualifications are only required for our records, in order to ease the process of data analysis.

Interview details

Date of the interview _____

Starting time of the interview _____

Location of the interview _____

Gender of Interviewee _____

Job title _____

Level of education _____

Longevity of occupancy _____

QUESTIONS

Section A: Health and safety profile for CHAU

1. In your own words, what is a health and safety policy?
2. Answer the following questions:
 - a) What specific hazards exist at CHAU?
 - b) Does the management keep an official record off all hazards prevalent at CHAU?
3. Answer the following questions:
 - a) What is the nature of accidents that have occurred at CHAU?
 - b) Does the management keep an official record of all the accidents that happen at CHAU?
4. Answer the following questions:
 - a) What measures has management put in place to manage occupational hazards and accidents at CHAU?
 - b) What stakeholders were consulted by management before putting in place the measures mentioned in (a) above?
 - c) How often are the measures stated in (a) above reviewed?
 - d) What factors determine the review of the measures stated in (a) above?
 - e) What laws, regulations, and standards guided the development of the measures stated in (a) above?
 - f) What existing policies support the implementation of the measures stated in (a) above?
 - g) What is the scope of the measures stated in (a) above in terms of personnel and physical location?
 - h) In your opinion, how effective have the measures stated in (a) above been in managing occupational hazards and accidents at CHAU?
5. What have been the challenges of managing health and safety at CHAU?

Section B: Current organisation of health and safety at CHAU

6. Who is currently accountable for health and safety at CHAU?
7. Answer the following questions:
 - a) What are the health and safety responsibilities of students at CHAU?
 - b) Are the health and safety responsibilities of staff stated in (a) above officially allocated to them?
8. What procedures and processes currently exist at CHAU for the following activities?
 - a) Hazard identification and risk assessment
 - b) Consultation with stakeholders

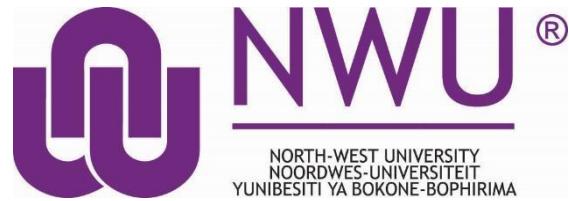
- c) Communication of health and safety information internally and externally
- d) Health and safety training
- e) Accident investigation
- f) Health and safety reporting
- g) Emergency procedures
- h) Any other procedures and processes.

Section C: Preferred health and safety policy for CHAU

- 9. Does CHAU need a health and safety policy and why?
- 10. What would be the appropriate OHS responsibilities of the students under the OHS policy for CHAU?
- 11. What would be the appropriate purpose of the CHAU OHS policy?
- 12. What would be the appropriate specific objectives of the CHAU OHS policy?
- 13. What would be the appropriate scope for the CHAU OHS policy in terms of personnel and physical location?
- 14. How often would the CHAU OHS policy need to be reviewed?
- 15. In your opinion, what factors would necessitate a review of the CHAU OHS policy?
- 16. Who would be responsible for approving the CHAU OHS policy?

THANK YOU FOR YOUR PARTICIPATION

Annexure L: Semi-Structured Interview Guide for The Ministry of Labour – Occupational Safety and Health Services Department



Dear Sir/Madam,

PhD Research Interview: An Occupational Health and Safety Policy for Chalimbana University

The above matter refers. Mr Moses Chewa is pursuing research towards a PhD degree in Public Management & Governance at the Potchefstroom Campus of the North-West University, South Africa and would like to solicit your assistance in participating in an interview schedule. The purpose of this research is to investigate the development of an OHS plan for Chalimbana University.

The completion of the interview questionnaire will only take **30 - 45 minutes**. Anonymity of participatory results and confidentiality are guaranteed. Your gender, age, position, experience and qualifications are only required for our records, in order to ease the process of data analysis.

Interview details

Date of the interview _____

Starting time of the interview _____

Location of the interview _____

Gender of Interviewee _____

Job title _____

Level of education _____

Longevity of occupancy _____

QUESTIONS

Section A: Preferred health and safety policy for CHAU

1. What is a health and safety policy?
2. What are the advantages of having a health and safety policy?
3. Are universities required to develop an OHS policy in Zambia?
4. Does CHAU need a health and safety policy and why?
5. What health and safety laws, guidelines, and regulations does the Ministry expect universities to fulfil?
6. Ideally, what should be the scope of the health and safety policy or measures for CHAU?
7. Answer the following questions:
 - a) What categories of individuals should be allocated OHS responsibilities at CHAU?
 - b) What should the specific OHS responsibilities of each category stated in (a) above?
8. Does the Ministry provide guidelines for the following?
 - a) Enterprise level policy design
 - b) Enterprise level policy review
9. Who should be accountable for health and safety at CHAU?
10. What positions, units or departments should CHAU establish to support the management of health and safety at the University?
11. What procedures and processes should CHAU establish to manage occupational hazards and risks?
12. What support would the Ministry be willing to offer to CHAU to enhance the management of OHS at the University?

THANK YOU FOR YOUR PARTICIPATION

Annexure M: Semi-Structured Interview Guide for The Higher Education Authority



Dear Sir/Madam,

PhD Research Interview: An Occupational Health and Safety Policy for Chalimbana University

The above matter refers. Mr Moses Chewa is pursuing research towards a PhD degree in Public Management & Governance at the Potchefstroom Campus of the North-West University, South Africa and would like to solicit your assistance in participating in an interview schedule. The purpose of this research is to investigate the development of an OHS plan for Chalimbana University.

The completion of the interview questionnaire will only take **30 - 45 minutes**. Anonymity of participatory results and confidentiality are guaranteed. Your gender, age, position, experience and qualifications are only required for our records, in order to ease the process of data analysis.

Interview details

Date of the interview _____

Starting time of the interview _____

Location of the interview _____

Gender of Interviewee _____

Job title _____

Level of education _____

Longevity of occupancy _____

QUESTIONS

Section A: Preferred health and safety policy for CHAU

1. What is a health and safety policy?
2. What are the advantages of having a health and safety policy?
3. Are universities required to develop an OHS policy in Zambia?
4. Does CHAU need a health and safety policy and why?
5. What health and safety laws, guidelines, and regulations does the HEA expect universities to fulfil?
6. Ideally, what should be the scope of the health and safety policy or measures for CHAU?
7. Answer the following questions:
 - a) What categories of individuals should be allocated OHS responsibilities at CHAU?
 - b) What should the specific OHS responsibilities of each category stated in (a) above?
8. Does the HEA provide guidelines for the following?
 - c) University policy design
 - d) University policy review
9. Who should be accountable for health and safety at CHAU?
10. What positions, units or departments should CHAU establish to support the management of health and safety at the University?
11. What procedures and processes should CHAU establish to manage occupational hazards and risks?
12. What support would the HEA be willing to offer to CHAU to enhance the management of OHS at the University?

THANK YOU FOR YOUR PARTICIPATION

Annexure N: Semi-Structured Interview Guide for The Ministry of Education



Dear Sir/Madam,

PhD Research Interview: An Occupational Health and Safety Policy for Chalimbana University

The above matter refers. Mr Moses Chewa is pursuing research towards a PhD degree in Public Management & Governance at the Potchefstroom Campus of the North-West University, South Africa and would like to solicit your assistance in participating in an interview schedule. The purpose of this research is to investigate the development of an OHS plan for Chalimbana University.

The completion of the interview questionnaire will only take **30 - 45 minutes**. Anonymity of participatory results and confidentiality are guaranteed. Your gender, age, position, experience and qualifications are only required for our records, in order to ease the process of data analysis.

Interview details

Date of the interview _____

Starting time of the interview _____

Location of the interview _____

Gender of Interviewee _____

Job title _____

Level of education _____

Longevity of occupancy _____

QUESTIONS

Section A: Preferred health and safety policy for CHAU

1. What is a health and safety policy?
2. What are the advantages of having a health and safety policy?
3. Are universities required to develop an OHS policy in Zambia?
4. Does CHAU need a health and safety policy and why?
5. What health and safety laws, guidelines, and regulations does the Ministry expect universities to fulfil?
6. Ideally, what should be the scope of the health and safety policy or measures for CHAU?
7. Answer the following questions:
 - a) What categories of individuals should be allocated OHS responsibilities at CHAU?
 - b) What should the specific OHS responsibilities of each category stated in (a) above?
8. Does the Ministry provide guidelines for the following?
 - a) University policy design
 - b) University policy review
9. Who should be accountable for health and safety at CHAU?
10. What positions, units or departments should CHAU establish to support the management of health and safety at the University?
11. What procedures and processes should CHAU establish to manage occupational hazards and risks?
12. What support would the Ministry be willing to offer to CHAU to enhance the management of OHS at the University?

THANK YOU FOR YOUR PARTICIPATION

Annexure O: Semi-Structured Interview Guide for The Occupational Health and Safety Institute



Dear Sir/Madam,

PhD Research Interview: An Occupational Health and Safety Policy for Chalimbana University

The above matter refers. Mr Moses Chewa is pursuing research towards a PhD degree in Public Management & Governance at the Potchefstroom Campus of the North-West University, South Africa and would like to solicit your assistance in participating in an interview schedule. The purpose of this research is to investigate the development of an OHS plan for Chalimbana University.

The completion of the interview questionnaire will only take **30 - 45 minutes**. Anonymity of participatory results and confidentiality are guaranteed. Your gender, age, position, experience and qualifications are only required for our records, in order to ease the process of data analysis.

Interview details

Date of the interview _____

Starting time of the interview _____

Location of the interview _____

Gender of Interviewee _____

Job title _____

Level of education _____

Longevity of occupancy _____

QUESTIONS

Section A: Preferred health and safety policy for CHAU

1. What is a health and safety policy?
2. What are the advantages of having a health and safety policy?
3. Are universities required to develop an OHS policy in Zambia?
4. Does CHAU need a health and safety policy and why?
5. What health and safety laws, guidelines, and regulations does the Institute expect universities to fulfil?
6. Ideally, what should be the scope of the health and safety policy or measures for CHAU?
7. Answer the following questions:
 - a) What categories of individuals should be allocated OHS responsibilities at CHAU?
 - b) What should the specific OHS responsibilities of each category stated in (a) above?
8. Does the Institute provide guidelines for the following?
 - a) University policy design
 - b) University policy review
9. Who should be accountable for health and safety at CHAU?
10. What positions, units or departments should CHAU establish to support the management of health and safety at the University?
11. What procedures and processes should CHAU establish to manage occupational hazards and risks?
12. What support would the Institute be willing to offer to CHAU to enhance the management of OHS at the University?

THANK YOU FOR YOUR PARTICIPATION

Annexure P: Semi-Structured Interview Guide for The Chongwe Municipal Council – Fire Department



Dear Sir/Madam,

PhD Research Interview: An Occupational Health and Safety Policy for Chalimbana University

The above matter refers. Mr Moses Chewa is pursuing research towards a PhD degree in Public Management & Governance at the Potchefstroom Campus of the North-West University, South Africa and would like to solicit your assistance in participating in an interview schedule. The purpose of this research is to investigate the development of an OHS plan for Chalimbana University.

The completion of the interview questionnaire will only take **30 - 45 minutes**. Anonymity of participatory results and confidentiality are guaranteed. Your gender, age, position, experience and qualifications are only required for our records, in order to ease the process of data analysis.

Interview details

Date of the interview _____

Starting time of the interview _____

Location of the interview _____

Gender of Interviewee _____

Job title _____

Level of education _____

Longevity of occupancy _____

QUESTIONS

Section A: Preferred health and safety policy for CHAU

1. What arrangement should CHAU develop to manage fire hazards at the University?
2. What is the importance of establishing arrangements for fire management?
3. How often should the arrangements for fire management be reviewed at CHAU?
4. What factors should necessitate a review of fire management arrangements at CHAU?
5. What is the nature of the working relationship between CHAU and Chongwe Municipal Council – Fire Department?
6. What can be done to enhance the working relationship between CHAU and Chongwe Municipal Council – Fire Department?
7. What position, units or department should CHAU establish to enhance the management of fire hazards at CHAU?
8. Who should be ultimately responsible for managing fire hazards at CHAU?

THANK YOU FOR YOUR PARTICIPATION

Annexure Q: Semi-Structured Interview Guide for Chalimbana University Police Post



Dear Sir/Madam,

PhD Research Interview: An Occupational Health and Safety Policy for Chalimbana University

The above matter refers. Mr Moses Chewa is pursuing research towards a PhD degree in Public Management & Governance at the Potchefstroom Campus of the North-West University, South Africa and would like to solicit your assistance in participating in an interview schedule. The purpose of this research is to investigate the development of an OHS plan for Chalimbana University.

The completion of the interview questionnaire will only take **30 - 45 minutes**. Anonymity of participatory results and confidentiality are guaranteed. Your gender, age, position, experience and qualifications are only required for our records, in order to ease the process of data analysis.

Interview details

Date of the interview _____

Starting time of the interview _____

Location of the interview _____

Gender of Interviewee _____

Job title _____

Level of education _____

Longevity of occupancy _____

QUESTIONS

Section A: Health and safety profile for CHAU

1. In your own words, what is a health and safety policy?
2. Answer the following questions:
 - a) What specific hazards exist at CHAU?
 - b) Does the management keep an official record off all hazards prevalent at CHAU?
3. Answer the following questions:
 - a) What is the nature of accidents that have occurred at CHAU?
 - b) Does the management keep an official record of all the accidents that happen at CHAU?
4. Answer the following questions:
 - a) What measures has management put in place to manage security at CHAU?
 - b) What stakeholders were consulted by management before putting in place the measures mentioned in (a) above?
 - c) How often are the measures stated in (a) above reviewed?
 - d) What factors determine the review of the measures stated in (a) above?
 - e) What laws, regulations, and standards guided the development of the measures stated in (a) above?
 - f) What existing policies at CHAU support the implementation of the measures stated in (a) above?
 - g) What is the scope of the measures stated in (a) above in terms of personnel and physical location?
 - h) In your opinion, how effective have the measures stated in (a) above been in managing occupational hazards and accidents at CHAU?
5. What have been the challenges of managing security at CHAU?

Section B: Current organisation of health and safety at CHAU

6. Who is currently for security at CHAU?
7. Answer the following questions:
 - a) What are the health and safety responsibilities of police officers at CHAU?
 - b) Are the health and safety responsibilities of staff stated in (a) above officially allocated to them?
8. What procedures and processes currently exist at CHAU for providing security at the University?

Section C: Preferred health and safety policy for CHAU

9. Does CHAU need a health and safety policy and why?

10. What commitments should top management at CHAU need to make to enhance the management of security at the University?
11. What measures should be put in place to manage security at CHAU?
12. What should be the appropriate scope of security measures at CHAU?
13. How frequently should the security measures at CHAU be reviewed?
14. What factors should necessitate a review of security measures at CHAU?
15. What legal and other requirements should guide the management of security at CHAU?

THANK YOU FOR YOUR PARTICIPATION

Annexure R: Notice to Submit



Private Bag X1290, Potchefstroom
South Africa 2520

Tel: 018 299-1111/2222
Fax: 018 299-4910
Web: <http://www.nwu.ac.za>

For Registrar
Tel: 018-299 4194
Email: ragel.jafta@nwu.ac.za

20 September 2023

Dear Mr M Chewe, 36506192

NOTICE OF SUBMISSION

A note has been taken that you wish to submit your **thesis** for examination. The registered title as it must appear on the examining copies and on the title page of the final copies is indicated below. An example of your title page will be sent together with this letter.

Developing an Occupational Health and Safety Policy for Chalimbana University

Your attention is drawn to the following matters regarding the above:

- You may submit your examination copies from 02 October to 27 November 2023 to possibly qualify for the Autumn graduation ceremonies (May/June 2024).
- Submissions received after 27 November 2023 will not be processed.

You are required to submit your examination copy in the following format:

- One electronic copy in Word format and one electronic copy in PDF format to be submitted via email to ragel.jafta@nwu.ac.za

The following forms must be submitted with your examination copies:

- The signed Solemn Declaration form
- Please visit the DIY [Student 360°](#) to ensure that your personal details are correct.
- Visit the [Personal Detail](#) on DIY to update your information. Please update your courier address to ensure that your degree certificate will be sent to the correct address after a ceremony.

I trust you find the above in order. Please do not hesitate to contact the undersigned for any more related information.

Yours sincerely

Mrs Ragel Jafta

FOR REGISTRAR

Original details: (10512187) M:\HDA Toolbox\Phase 3\2. Notice of Subm\Letter to student\July 2018\NOS July 2018 letter .docm
11 July 2022

File reference: 7.1.11.2.1

Annexure S: Editorial Certificate



THE UNIVERSITY OF ZAMBIA UNZA PRESS

Florence Tembo-Mpandamabula,
The University of Zambia Press,
P.O. Box 32379
Lusaka,
Zambia

22 November, 2023

TO WHOM IT MAY CONCERN,

North-West University, Potchefstroom Campus
53 Borchard Street, Potchefstroom 2531
11 Hoffman Street, Potchefstroom 2531
South Africa

Dear Sir/Madam,

REF: EDITORIAL CERTIFICATE

This is to certify that I **Florence Tembo-Mpandamabula** is a qualified Editor working at the University of Zambia Press and has been working in this position for ten years.

I certify that the thesis titled **Developing an Occupational Health and Safety Policy for Chalimbana University, by Moses Chew (36506192)** has been edited for language, grammar, punctuation, and spelling. I also certify that the content and author's intentions have not been altered in any way during the editing process.

Yours Faithfully,

Florence Tembo-Mpandamabula
EDITOR, UNZA PRESS
Email: florence.mpandamabula@gmail.com