

PRESBYTERIAN UNIVERSITY COLLEGE, GHANA

FACULTY OF DEVELOPMENT STUDIES

DEPARTMENT OF ENVIRONMENTAL AND NATURAL RESOURCES

MANAGEMENT

SUSTAINABLE USE AND MANAGEMENT OF CEMETERIES IN THE
ACCRA METROPOLITAN AREA, GHANA

A Dissertation Submitted to The Department of Environmental and Natural
Resources Management of the Faculty of Development Studies, Presbyterian
University College, Ghana in Partial Fulfilment of the Requirements for the
Award of Master of Science Degree in Environmental Health and Sanitation

BY

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SEPTEMBER 2020

DECLARATIONS

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Name:.....

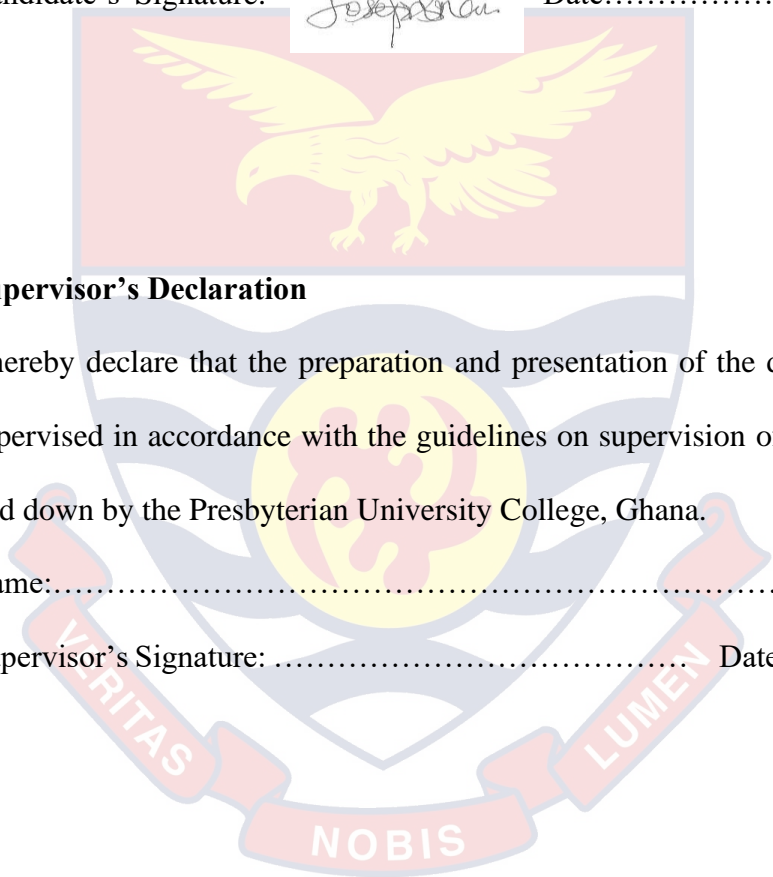
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Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of the dissertation laid down by the Presbyterian University College, Ghana.

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ABSTRACT

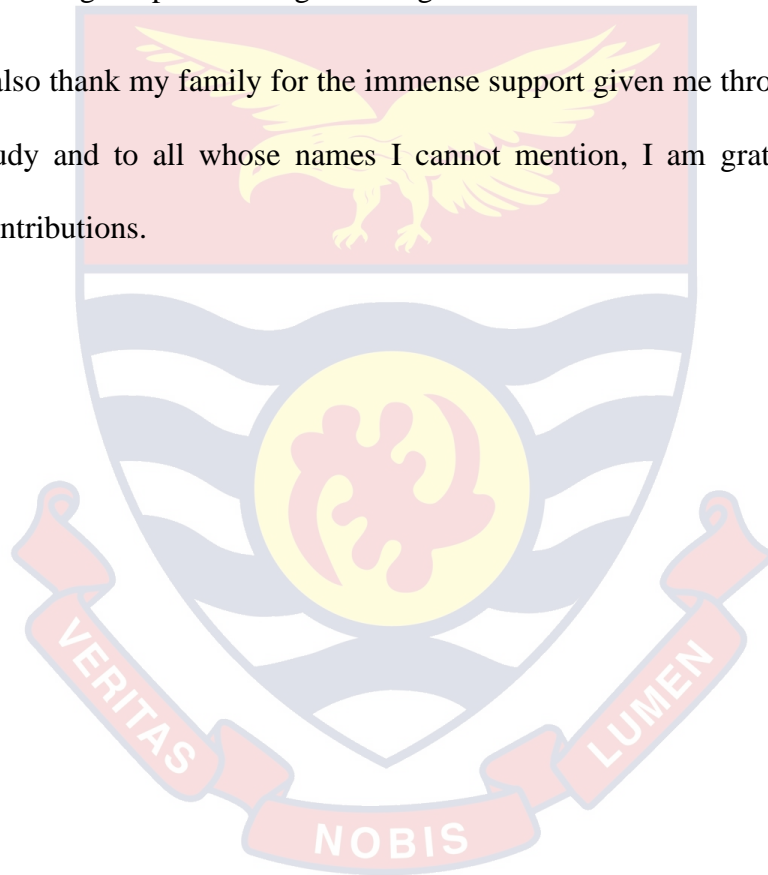
Land for burials is one of the issues that Metropolitan areas are confronted with. Cemeteries have become a valuable and a limited resource and should not be forgotten that land for cemetery usage in the Accra Metropolis is scarce. This calls for cemeteries to be very well planned and managed in the light of sustainability. However, despite actions taken by the government and local authorities in addressing this issue, there is no strategic solution to ensuring the sustainable use and management of cemeteries in the Accra Metropolitan Area. The research, therefore, focuses on sustainable management of cemeteries in the Accra Metropolitan Area and addresses the question of examining cemetery management practices and evaluating of sustainable use of cemeteries within the Accra Metropolitan Area. The target population for the study were selected employees from sampled cemeteries within the Accra Metropolis such as Cemetery management staff, supervisors, non-management staff, and other stakeholders. Overall, thirty-eight (38) employees and stakeholders constituted the actual sample size for the study. It makes use of the structured and other open-ended questionnaires as the main survey data collection technique. The study concluded that cemeteries have made a significant contribution to the development of the Metropolis through the re-using of old graves and earth burial. Thus, the management of the cemeteries impacted positively on sustainability and recommends that stakeholders should develop a comprehensive national policy framework to guide the activities and management of cemeteries in the country.

ACKNOWLEDGEMENTS

I wish to express my profound gratitude to my supervisor, Mr. Emmanuel Angmor of the Faculty of Development Studies, Presbyterian University College, Ghana for his support, contributions and suggestions and great sacrifice of hope and love shown me throughout this research.

I also acknowledge all Lecturers at the Faculty of Development Studies for the knowledge imparted and guidance given.

I also thank my family for the immense support given me throughout the entire study and to all whose names I cannot mention, I am grateful for all their contributions.



DEDICATION

To my entire family, friends and well-wishers for their support and encouragement.



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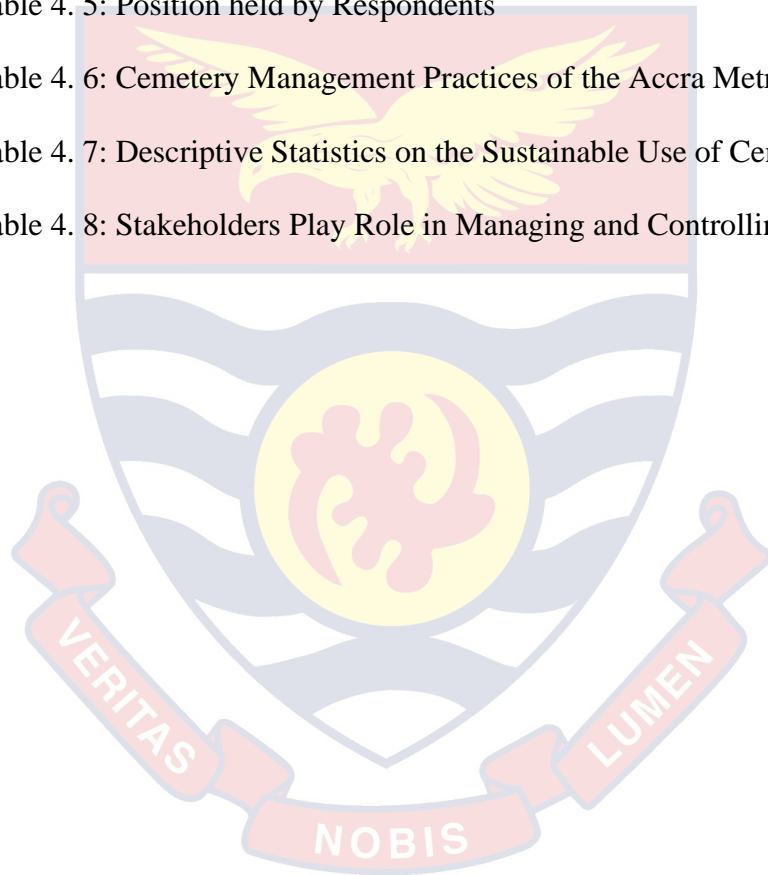
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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Today, the world faces enormous challenges of in terms of finding the best appropriate management and strategy in providing and conserving land cemetery for the mankind both present and future generation (Carlton & Coutts, 2010). This has made institutions and world bodies around the world to campaign and find more comprehensive sustainable use of the cemetery lands to protect our lands. Based on this reason, the stakeholders involved in the management of cemetery has taken upon themselves as a role to help protect the burial sites in the various sites (Carr, 2015). Moreover, both developed and developing countries are living in a troubling period because of the growing population, rapid urbanization and environmental degradation (Favretti, 2017). These have manifested themselves both in the urban and rural areas though they are heavily seen in the urban areas. Several development concepts such as green movement, coo logical approaches, sustainable development and green urbanization are being adopted to minimize environmental degradation in different areas. Cemeteries being an unavoidable form of land use in the human settlement is seen as a potential environmental protection area which should be planned, designed, managed and maintained. ecological concerns to cemeteries include the selection of burial site, the type of soil, cemetery landscape design (selection of plant species) and maintenance of cemetery landscape (weed control), after the planning and design process (Florida, 2012).

Cemeteries per the Oxford Dictionary is a large burial ground, especially one not in the churchyard. hence in general terms, it can be said to be an open space set aside for burial the dead in society or settlement cemeteries perform different and many functions but he main two functions of cemeteries are the fact that they serve as places of deposit and transformation of dead bodies without dangers to public health and places of visit for people wanting to remember dead persons and at the same time a symbol of the historical memory (Fogli, 2004). Cemeteries, therefore, have religious, symbolic, philosophical and artistic meanings for various disciplines in academia (such as theology and history of art) and they are advancing in importance as ecological reserve areas or potential green areas for branches of science dealing with urban planning or ecology since green areas in cities are reducing day by day (Fogli, 2004).

Cemeteries which were in earlier times out of cities have, over time, remained within urban settlement areas and have become entangled with inhabited areas (Uslu & Hasgiler, 2006). This has caused planner, cemetery managers and citizens who have passion for the environment to come up with the concept of commercial/private cemeteries which inculcate strong environment considerations necessary in the issue of planning, design and management of these cemeteries. Contrary to other forms of urban land use such as residential and commercial, it is difficult to change them to different functions and uses because of their religious and philosophical meanings even when urban profitability is high. Choosing a suitable place which has the appropriate characteristics and also big enough for a cemetery is the most important environmental issues. Some data type that can influence the determination of the size of a cemetery includes, demographic data including projected population

growth and death as well as the size of an area necessary for a burial place are taken into account. Thus, the need for bigger burial space is with the population growth of an urban area. Issues of selecting the location of the cemetery, forms of burial, construction of the tomb, structural and botanical design are taken up under commercial cemetery approach, which aims at maintaining and improving the natural environment.

1.2 Statement of the Problem

The problem of shortage and unreasonable locations of burial and land arises in places where there is a high density of built-up areas. There is also no comprehensive body of legislation to deal with this matter since some nations have no-space limitation for existing cemeteries as a result do not have difficulty in finding newly suitable areas for the disposal of human remains. Many problems arise in countries that do not have a shortage and unreasonable location of burial land, which is described as a scramble of land between the dead and living by some socialist (Zhou & Zhao, 2018). However, with the rapid urbanizing of the Accra Metropolitan Assembly (AMA) and the transformation of social, economic and demographic structures, communal and public cemeteries located within the AMA have become inadequate to fulfil the community needs. Most cemeteries within the municipality are now urban problem areas and lack the needed space for expansion, management and protection of graves. This situation can be attributed to the haphazard design, development and management of public cemeteries. Interestingly, communities are also not willing to provide large tracks of land for public cemeteries in urban areas like Accra, Kumasi and Tema. Stakeholders such as Planners and City authorities are also confronted with a dilemma, due to rapid changes in land-use

patterns, especially as urban areas play host to more than half of the world population (UNFPA, 2007). My perspective is that there is a research gap that has been created as a result of poor management practices in AMA cemeteries leading to our inability to use burial lands to meet the needs and expectations of current and future bereaved families. This calls for pragmatism in the sustainable use of our urban space through proper planning, designing, maintenance and management of our cemeteries. There is therefore the call for this study to be conducted on the sustainable use and management of cemeteries in the Accra Metropolitan Area.

1.3 Objectives of the Study

The general objective of the study is to examine the sustainable use and management of cemeteries in the Accra Metropolitan Area. The specific objectives are:

1. To examine the cemetery management practices of cemeteries within the Accra Metropolitan Area
2. To evaluate the sustainable use of cemeteries within the Accra Metropolitan Area
3. To ascertain the effect of cemetery management practices on the sustainability of the cemeteries within the Accra Metropolitan Area
4. To evaluate the role of other stakeholders in the cemetery management practices of cemeteries within the Accra Metropolitan Area

1.4 Research Questions

1. What are the cemetery management practices of cemeteries within the Accra Metropolitan Area?

2. How sustainable is the usage of cemeteries within the Accra Metropolitan Area?
3. What is the effect of cemetery management practices on the sustainability of the cemeteries within the Accra Metropolitan Area?
4. What are the roles of other stakeholders in the cemetery management practices of cemeteries within the Accra Metropolitan Area?

1.5 Scope of the Study

Geographically, the scope of the study is the Accra Metropolis. More specially, the study explores some section of Accra Metropolis where cemeteries are located. The study area, Accra Metropolis, was selected because it plays host to six (6) cemeteries which play vital land uses in the metropolis. The study area covers Ablekuma South, Okaikoi South and Ashiedu Keteke sub-metropolitan area which currently covers the Accra Metropolitan Area. Contextually, the study focuses on the sustainable use and management of public cemeteries in the Accra Metropolis thus it assesses the sustainability based on management dimensions.

1.6 Delimitation of the Study

It would be better to make wide the study to cover all cemeteries in the Greater Accra Region to obtain more reliable information. However, because of the constraint of time and limited financial resources. The study was limited to sustainable use and management of cemeteries in the Accra Metropolitan Area.

1.7 Limitation of the Study

Every research has limitations and this particular one is no exception. Firstly, it is very difficult in Ghana to elicit official information from individuals and households and even from government departments and agencies. As a

common thing associated with all household survey in Ghana, some people feel uncomfortable to divulge the correct and absolute information to researchers for fear of their secret being brought to the public. No matter how open researchers tend to be is, some respondents prefer to either hide their identity or not to give out the real information. This might be linked to the literacy level of the population as many people with high education mostly are secretive about their personal and family life until it is well proven to them that such information is strictly for academia purposes. Officials at the planning department of the Accra Metropolitan Assembly (AMA) often had heavy schedules and due to extra responsibilities as well as travelling and attending conferences it was difficult to get them to fill their questionnaires on time. This necessitated the use of emails and telephone calls in some cases to complete the data collection.

1.8 Organization of the Study

The study was classified into five main divisions. Chapter One of the study was made up of the background, problem statement, objectives, justification and as well as the scope of the study. Again, Chapter Two did take care of the literature of the study that comprises, the theoretical underpinnings of the study. Also, Chapter Three was designed to take care of the methods, tools and procedure used in the conduct of the study. Chapter Four is made up of the analysis and discussion of the study results whereas Chapter Five summarises the study findings, conclude and makes recommendations.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

The cemetery is a place of final disposition and demoralization of the human remains, including but not limited to only a graveyard, mausoleums, and columbarium or scattering gardens. Research shows several definitions highlighting different meanings of cemeteries (Curl, 1999). Curl (1999) defined cemetery as a burial ground, especially a large landscaped park or ground laid expressly for the deposition or interment of the dead, not being a churchyard attached to a place of worship. Curl (1999) further agreed on a broader approach in the discussion of the cemetery as a text of culture, proposing the view that not every place of burial is a cemetery. One consequence of burial in the former Yugoslavia was the creation of several mass graves which were simply a place of disposal, where corpses could disappear.

Differentiating burial sites from a cemetery, Worpole (1997) described a burial site as a certain sector of space-delimited by certain prior formulated resolutions, according to which funeral practices consistent with religious, ethnic, cultural are customary and easily define the needs of a given community. According to Curl (1999) burials are carried out solemnly. A cemetery consists of two necessary interconnected requirements; a priori formulated resolutions, and the ability of the space to facilitate burial carried out in an appropriately ritualised way. A cemetery becomes more than an unplanned site in which the disposal of human remains has taken place. Rugg (1998) provides a rather technical definition of cemeteries, as a final resting place. It is defined as municipally owned and managed and often comprises large areas of land spaces

that the dead have been buried to protect the bodies from scavengers, weather or unhygienic conditions and sanitation (Uslu, 1997). Considering their meaning as a final resting place, Comertler (2001) gives a broader explanation for cemeteries and asserts that they are special land uses within the urban fabrics, which require a special planning and design approach evaluating the concept in terms of its symbolic, social, cultural, ecological and recreational aspects apart from the hygienic and functional aspects.

Clayden and Woudstra (2000), however, emphasizes the ecological asset of cemeteries for the city and their effects on people's emotions. Worpole (1997) defines cemeteries as "a cemetery is not an all-weather pitch, neither is it simply a nature reserve: it is a complex, historical and social-cultural legacy which has great emotional meaning." Cemetery design and the unfolded activity differ from culture to culture to the different funeral customs and religious beliefs. The Cambridge English Dictionary hence gives a simple definition as "an area of the ground in which dead bodies are buried". Cemeteries as land use in various settlements, therefore, represent an important component when it comes to the ethnic and cultural identity of propelling in the settlement. Worpole (1997) assesses that cemeteries are a necessary social element serving society's needs for the memorization and accommodation of the departed.

Government through planning has a long history of setting aside significant areas of land for public cemeteries to ensure that the right to a dignified burial is afforded by all members of the community. Today, as in the past, cemeteries across the state provide services to help all religious and cultural groups to honour and bid farewell to their loved ones. Over the last two years, Ghana has become increasingly at risk of jeopardising this proud tradition. The

ability of public cemeteries in our major urban cities especially Accra to provide for the wishes of the citizens regarding the treatment of the remains of their families and loved ones who have departed has become less and less certain (DeWitte, 2003). It is therefore important that appropriate land use planning policy be provided to ensure that the needs of societies are satisfied appropriately and efficiently. This chapter reviews the literature relevant to the study. It provides a global perspective on cemeteries with the historical development of cemeteries, types of cemeteries, economic, social and health aspect of cemeteries.

2.2 Historical Development of Cemeteries

Cemeteries have been in existence for a very long time dating back to the prehistoric era when the dead were prepared and laid to rest. In caves for safeguarding against wild animals thus apart from the development of human settlements, there was the need to accommodate the deceased. However, cultural preferences which govern societies expressed how these societies accommodated these needs, with practices as diverse as the culture themselves. According to (Puckle, 2008), earth burials became prevalent and barrows were commonly used, burial grounds were then located conveniently near to the villages or settlements, but sufficiently remote to avoid a fear of proximity to the dead. The origins of early burial customs and places describe the use of caves not only for habitation by early man but as a place for their dead. The evolution of the practice from cave to shafts purposely carved into chalk, to the construction of dolmen, to eventually earth burials. (Puckle,2008) Noted that, although burial practices may vary, there appears to be a common need to

recognize and honour the deceased. Cemeteries fulfil this need by providing a centralized place for this activity.

Fisher (2010) explains that, concurrent with the rise of the earliest cities, about 7,000 to 8,000 years ago, caves or pits with bodies arranged in fetal positions came to be equated with wombs, the earth as a mother to whom the body returned, dust to dust. For cultures believing in an afterlife, the body could be required to rise as a whole, so graves offered protection from wild animals and weather that might cause bones to disperse (Egener, 2010). It was realised that egener traces the evolution of what has becomes the modern cemetery. Many cultures chose to separate the living from the dead by moving their burial grounds to the outskirts of their cities. Pre-Christianity Rome only allowed important people to be buried within their cities, whereas in ancient Greece there were several common practices. Families often buried their dead within their homes or on family plots (Kenneth, 1994). At various times they also used trenches in the ground, ornate tombs, caves and cavities cut out of rock in hillsides. Cremation was also an option wherein a body was placed on a pyre and burned, the ashes then placed in an urn and buried (Kerrigan, 2007). Other cultures followed a variety of practices in dealing with their dead. The term “cemetery” has its origin in both Greek and Latin terminology. In Greek, the word is “koimeterion”, while in Latin the word is “coemeterium” meaning “sleeping chamber”. Kenneth (1994) speculates that the concept relates to the design of the ancient burial chambers which imitated dwellings for the living. Other ancient societies dug tubular shafts into the earth to dispose of the bodies of their slaves, which when full were capped with a tree to seal the hole. A similar practice of

crypt-type burial was followed by some Scots to the end of the eighteenth century.

According to Goody and Poppi (1994), early cemeteries offered burial rights in perpetuity, by giving families rights over burial plots which contained their departed ones for which their remains were never removed. In Southern Europe, skeletal remains are exhumed from their plots after a period in a grave which was then reused. However, the reuse of graves did not become part of the burial culture in the United States of America and Britain after the reformation. Burial rights were offered in permanence and graves were not disturbed. This informed graves with indication, alternating from decorative construction of staturary and monuments through to single plaques set into a lawn. Some historians believed that the popularity of cemeteries in the 19th century relied on the fact that it was able to give families space for indication which served as an expression both of grief and status (Cannadine, 1981).

Nichol (1994) reports that cemeteries have divisions, areas within the site may be set aside for the exclusive use of religious groups or minority ethnic communities. The allocation of space within the site may take place when the cemetery is established, or develop over time. The Australia Adelaide's West Terrace Cemetery was established in the late 1830s and within a decade a Quaker community. By 1855 a further portion had been granted over for exclusive use by Quakers. It was realised that most British cemeteries have sanctified and unsanctified sections; and in such places as Ireland and Quebec, demarcations are common between Catholic and Protestant Sections (Prior, 1989). Despite the separation, however, all the communities remain part of the whole cemeteries that accommodate all.

Finer (1952) makes it clear that the siting and purpose of cemeteries can go beyond the community's need for burial space and may include concerns over public health and a desire to offer protection and privacy both to the corpse to the bereaved (McManners, 1981). The cemetery can also be a way of demonstrating a degree of civic pride (McManners, 1981). Despite the location of cemeteries, there are several obvious physical properties. The most immediate of these is a well-known perimeter. In some instances, the boundary is marked by a hedge or other planting. Commonly, a more substantial structure is used thus a high wall making it by no means an incidental feature of the site. The secured boundary of a cemetery served two purposes and they include protecting the dead from disturbances and to isolate the departed from the living. The entrance of cemeteries in the 18th and 19th century made clear of their meaning either literally or symbolically. During the time of growth of cemeteries in the 1820s and 1830s, when cemetery growth was gathering pace, classical motifs, particularly images from ancient Egypt, were deemed appropriate for cemetery architecture;

“Designs including inverted torches, and snakes devouring their own tails, were often integrated into entrance gate architecture”.

These images, which gave a meaning of the end of life, eternity and the passage of time, were not applicable in any other sort of context. Thus, both the boundary and the entrance gate signified the cemetery as a distinct place with a unique purpose (Curl, 1982).

2.3 Sacred Nature of Cemeteries

According to Kenneth (1994), the different types of burial sites with each distinguished feature can be segregated by the fact that they are regarded as

‘sacred’. ‘Sacredness’ is a concept of that is in itself slippery. Dictionary definitions give the word a range of meanings, from the ‘holy’ and ‘consecrated’, implying a spiritual element, through to ‘protected from irreligious action’ and the almost secular in tone ‘worthy of or regarded with reverence, awe or respect’ (Markins, 1991). Cemeteries are mostly regarded as sacred because the site is treated with respect much of which rests largely on the fact that the site acts as a context for grief. Thus, behaviour in cemeteries can be subject to several regulations, banning for example ball games or loud music (Saunders, 2009). In measuring the burial site as a sacred place, there are two closely related issues that one has to look at. These elements are pilgrimage permanence. ‘Pilgrimage’ is a term that can be used to describe visits to burial to tend or view a particular grave. Three intertwined reasons can be ascribed to the grave visits that are, the private and personal (Francis *et al.*, 2000), the overtly or inadvertently political (Hartman, 1986), and the recreational (Rojek, 1993). In the case of the cemetery, going to the site is for the most part a private and personal activity. The majority of visitors have friends or family buried at the site, and the essential interest in the site is largely restricted to a particular town. The high incidence of visits over a protracted time means that the site becomes sacred and is afforded some degree of permanence.

In the UK cemeteries are protected by a combination of legislative enactment and popular opinion on what is appropriate for cemetery land. There is no doubt cemetery space are regarded to some degree as sacred, cemeteries are principally institutions that aim to serve the whole community. The sites can carry multiple social and political meanings.

2.4 Purpose of Creating Cemeteries

The idea of immortality is the answer to a profound human question that shapes religions. The question, which is posed relates to “What happens to a person afterlife?”. The history of funeral customs and death rituals is parallel to the history of mankind. In most cultures such as Shaman Turks, Egypt cultures, Hindu cultures and Judaism, a classical point of view in defining death, seems to the life itself on another plane of existence. Death is perceived as a break of life, on the way to a continuation of life by other means. Religions defend that the spirit does not disappear, it survives forever. In other words, death does not mean the end of life, although the Oxford Advanced Dictionary’s definition is, the end of life, the permanent cessation of vital bodily functions, as manifested in human by the loss of heartbeat, the absence of spontaneous breathing, and brain death. In the thesis of Uslu (1997), the medical definition of death is explained as coming to the end of physical existence. Uslu states that death is the process which includes first, disappearing of effective heart contractions due to any reason, second ending blood pumping and respiration functions and finally, occurring unreturnable damages due to disoxygenated on organs and tissue. Freud said that the aim of life is death, he further explained that every organism wants to die in its fashions (Lifton & Olson, 2004).

2.5 Separating the Dead from the Living

After death, communities bury their deceased ones with a religious ritual as a farewell and mourning ceremony. Human beings are the only species which bury their dead bodies (Szamotolski 1989). Salisbury (2002) emphasized that fear of the dead is a common theme in many funerary practices around the world. According to him, some of the first burial customs appeared to protect the living

from the spirit which is described in all religions, from the most primitive to developed once such as Totemism, Shamanism, Buddhism, Jewish, Christianity and Islamic.

Also, in a historical process, besides this religious belief, corpses have been buried mainly in the soil to protect the body from scavengers and the ravages of weather or for hygienic conditions and sanitation (Ulsu, 1997). Death phenomena and disposition of the dead have a different meaning from one culture to another and thus the funeral customs related to death beliefs are different. However, among cultures, there are some similarities. Almost every culture and civilization ever studied has three things in common relating to death and the disposition of the dead, it includes some type of funeral rites, rituals, or ceremonies, a sacred place for the dead and finally memorization of the dead (Salisbury, 2002). Even today the fear of the death and the religious beliefs are the significant motivation behind the funeral customs, traditions and the interment techniques.

2.6 Signifying Status of Person

The study of social anthropologists on the technical practices of disposal of the dead body and the complex social reactions of a person has shown how great the variety of practices. Since the death of the first human being in the world, people have disposal their dead in different manners. Concerning different religious beliefs and values, human beings have used different techniques for the final disposal of human remains and marked the interment spaces (Francis, 2000). The first known body is buried 75,000 years ago (Comertler, 2003). Caves provided both shelters for the dwelling and a sepulture for the dead bodies. The first evidence of deliberate burial was found in

palaeolithic caves, and fields of prehistoric grave heaps. Prehistoric discoveries include both individual and communal burials (Salisbury, 2002). Hunters bury the bodies to protect them from wild animals. Afterwards, humankind produces different body disposal techniques and interment spaces with funeral ceremonies for their religious considerations. Thus, different ways of body disposal methods show a social and religious character and they tend to be deeply embedded in cultural traditions.

The most significant and known culture about internment ceremonies is Egyptian culture with their Magnificent tombs. In ancient Egypt, Egyptians believed an immortal life and to achieve a successful rebirth. They consider the preservation of the material body very necessary, so they mummified the corpses. At the end of the Naqada period (around 3000BC), burial goods and tomb size became more polarized. There were exceeding rich tombs, with many burial goods and complex funerary architecture, built above the ground. However, the graves of very poor people were designed with almost no burial goods. Egyptian society has become a class society and this is visible in its burial customs (Wolfram, 2013). The typical burial place of high elite officials at this time is the palace facade tomb a funerary complex consisting of two parts. The first part is the underground chambers preserve for the dead.

The second part of the façade is the superstructure, built above the ground during the burial the tomb was filled with many goods important for survival in the next world. The goods are generally, several beautiful stone vases containing a trace of food, for the meal of the poultry and stone jars (Comertler, 2003).

2.7 Types of Cemeteries

(Mcmanners, 1981) indicates that aside physical features cemeteries can also be looked at by the use and ownership. The main aim all use of the cemetery as with many burial sites in the interment of the dead. Usually, cemeteries serve a complete community, with the catchment area being an entire district or town. One aim of early French revolutionary cemetery was to present a microcosm of society and reproducing community as a whole. (Mcmanners, 1981), he further stated that cemeteries are principally circular spaces, ownership is almost always by municipal authorities or private sector concerns. The sites are intended to serve the whole community, and doing so are closely integrated into community issue. The sites can carry multiple social and political meanings. Using this element of definition, physical characteristics ownership and purpose, sacredness and the sites ability to promote or to protect the individuality of the deceased. This leads us to the cemetery type's available ranking from churchyards, public cemeteries, wall cemeteries and private cemeteries mass graves and pantheons.

2.7.1 Church Yards

In the isolated areas in the 19th century, there was no government provision for burials. So, the phases of settlement especially beyond defined boundaries or district lone graves and family cemeteries were dominant. As small religious communities develop churchyards or denominational burial grounds were established (Bender, 1975). Only when an area was officially identified as a village or township and properly surveyed would the governments dedicate a general cemetery for the community these days, churchyards are used house. Church cemeteries are often located on church publics which therefore

makes them privately owned and managed and generally opened all to visit. Once such famous churchyards are the trinity church cemeteries located in Manhattan, New York USA and the Catholic cemetery at Koforidua in the Eastern region of Ghana.

2.7.2 Public Cemeteries

During the late 19th and the early 20th Centuries, a large number of lands were dedicated as reserves for cemetery purposes through government surveyors identified land for community facilities such as cemeteries whenever they surveyed towns and villages. These areas of land were set aside in rural and urban centres and were usually divided into distinct denominational sections. They contained plots of land ownership by a government unit within a town city or country and where by law, public cemeteries that must be opened to all thus public access is available to all dedicated cemeteries. Public cemeteries were often cited as evidence of civility and operated within an essentially circular urban milieu (Bender, 1975). In 19th century cemetery where tree planting was a conscious feature of the cemetery layout, evergreen species were traditionally used. Example of public cemeteries in Ghana includes the Awudome, Osu and Tafo Cemetery.

2.7.3 Commercial Cemeteries

Commercial cemeteries are the cemeteries types which are well established with good and adequate facilities like better security, mortuary, funeral grounds lawns and protected tree species. Aside from their high economic value, they add some beauty to the urban environment and serve as an open space for emotional distress (Francis, 2010). They gain popularity in the early 19th century when the burial graveyards also known as public cemeteries began to be

established due to rapid population growth and the increasingly limited space in public cemeteries for interment. It was conceived in 1711 by a British architect Sir Christopher Wren. Even though his idea was not immediately accepted, he advocated for the creation of landscape burial grounds which featured well-planned walkways which gave extensive access to graves and planned plantings of trees, bushes and flowers (Comertler, 2013). Many new commercial cemeteries are owned by organizations or privately owned and thus independent from churches and municipalities or government. A typical example that can be mentioned is the Gethsemane memorial garden in Accra east Legon.

2.7.4 Wall Cemeteries

Wall cemeteries are established in the sense of burying a large number of the dead usually with identical markers (Kerrigan, 2007). They are owned by secular thus non-religious authorities. They are reserved for those who died as a consequence of conflict or war which also set their role in exhibiting new expression of national identity. An example is the Osu Military Cemetery at Osu.

2.8 Features or Aspects of Cemeteries

A cemetery is not merely a functional place for disposal of the dead. It also serves the community's emotional, religious and cultural needs. It shows an expression of people's culture and identity, cemeteries comprise a fascinating resource which allows the community to delve into the past (Szamatolski, 1989). The monuments and graves represent the last public memorial of many people both famous and unknown, who were intimately involved with the growth of the local area in which they buried. In this, way the headstones themselves, through the names, occupations, dates and epitaphs, provide a largely unique social literary, economic record of the district the monuments, also demonstrates the

acts of the stonemason whose skill craftsmanship is likely to be repeated. But it is not just the headstone which is important in a cemetery in the landscape. Many rural cemeteries contain important botanical species which are endangered. Cemeteries have long been recognised as repositories for heritage roses and it is being increasingly recognised that they also harbour and protect native vegetation. Along with the vegetation's cemeteries are also a having for wildlife generally (Szamatolski, 1989).

2.8.1 Religious Aspects

Cemeteries reflect the religious beliefs and customs of different sections of the populace. These are demonstrated. In the customs and rituals associated with burial and commercial. Religious adherence and beliefs can change over time, and this is often in the monuments and layout of the cemetery. Twentieth-century cemeteries in particular reveal the expanding multicultural nature of societies with a broadening of religious faith (Mcmanners, 1981). The cemetery itself may also have a significance of particular religious' groups and for individuals. It may also contain chapels or robing rooms associated with a particular religious group; or perhaps burial of a particular religious sect.

2.8.2 Social Aspects

Cemeteries have an important honouring function. The community often attach values to the graves, such as respect or reverence. Many cemeteries hold a special significance for individuals or groups as a result of personal feeling and or attachment to those buried within the cemetery. Early Europeans settlers' graves and war graves are examples of graves that are often considered socially significant to the whole community (Fogli, 2004). Also, artistic values which can be found in the landscape design and layout of the cemetery, and the

monuments styles and grave furniture gives the society the ability to enjoy the cemetery by serving as a quiet place for reading and meditating.

The arrangement of burial areas, alignment of drives, paths, avenues of trees and massing of shrubs add significance to a cemetery in that, they allow societies to have a feel pf green nature thereby being used as a park for exercising and doing other things which are of the great benefit of the society (Usla & Hasguler, 2006). Overall landscape quality is determined by the combined effect of setting, landscape design, and botanical elements. Plantings were mostly chosen for their symbiotic meanings, particularly in the 19th century. Cemeteries may therefore provide a valuable resource as a botanical collection or as a source of rare specimens of native or introduced plants. In the wise, public, private or religious cemeteries do have some value for the general public or the community in which they are found and they need to be appreciated and treated with the care they deserve (Kellaheer & Neophtou, 2010).

2.8.3 Economic Aspect

Many cemeteries reflect both the changing attitude of the community towards death and developments in architectural and artistic style and theory. The cemetery may be significant on account of the variety of artistic approaches represented in its monumental architecture, and also in the quality of craftsmanship. Cemeteries often contain examples of work by local artisans and manufacturers. A monumental mason; s name often appears on the monument or headstone, allowing the work of local craftsmen to be identified. As well as the monument itself, the execution of the lettering for the inscription may demonstrate fine workmanship (Brook *et al.*, 1989). Iron grave surrounds may be locally produced and sometimes bear the name of the manufacturer or

foundry. Grave markers may also show creative or technical ingenuity, through their use of materials or execution. This is particularly true in isolated rural districts where access to skilled monumental masons was not always available (Rojek,1993). Cemeteries also served as a source of income to municipalities when they were used as a tourist site. Père Lachaise is just one of several Parisian cemeteries that attract visitors because of the celebrity of people who are buried there. Similarly, the cemetery at Montparnasse, containing the remains of Simone de Beauvoir and Jean-Paul Sartre, advertises itself in local tourist guides as a ‘jardinpanthe Aon ’and includes a trail to help visitors locate the graves of the famous. Rojek noted how cemeteries in Los Angeles attract tourists to view the graves of famous stars and mentions other sites attracting similar attention because of the famous dead, including the protestant Cemetery in Rome and Highgate Cemetery in London (Rojek,1993). It is contended that this death tourism, in particular, the modern period, failing to note that a visit to the cemetery whether to view the last resting place of the famous, partake in melancholy remembrance, or to enjoy the landscape was very much a Victorian pastime (Brook *et al.*, 1989).

2.8.4 Health Aspect

WHO defines public health as the organized measures whether public or private to prevent disease, promote health, and prolong life among the population as a whole. It is concerned with health threats based on population health analysis (WHO, 2018). The population in question can be as small as a handful of people, or as large as all the inhabitants of several continents for instance, in the case of a pandemic the dimensions of health can encompass a state of complete physical, mental and social well-being and not merely the absence of disease or

infirmity, as defined by the United Nations 'World Health Organization. Sloane (1991) pointed out more recently that new cemeteries are usually not welcomed in the neighbourhoods of America. There were several reasons for the outlying locations in the neighbourhoods of America. There were several reasons for the outlying locations of cemeteries in the nineteenth century. Municipal governments saw burial goods as potential health hazards and most communities shied away or prevented the location of cemeteries in their area (Rojek,1993). Also, cemeteries, even those privately owned and operated for profit, were not and are sought outlying locations where large tracks of land were available at a reasonable cost. Faced with public transit lines, directly along routes of urban expansions (Pattison 1955; Rugg 2000).

The WHO explains that the most exciting cemeteries were sited close to settlements without given consideration to potential risks to the local environment or local community but due to religious and culture reasons (WHO, 2018). It has therefore been established that contamination from cemeteries can be used as a water source (Corry, 1978). A report by the Environmental Agency, Wallingford, the United Kingdom in 1998 shows that sufficient land area for cemeteries is difficult to find in populated areas, and shortly areas sufficient land area for cemeteries may not be found at all cities in most parts of the world. Given the need for a review of cemetery locations, there is a need to identify more precisely if, or in what way, cemeteries have any harmful impacts on the environment and public health. One approach would be to establish a set of basic design criteria for the siting and construction has been given to finding the most suitable soil types in which to bury human's remains as to minimize the effect of seepage on the environment and public health (Wolfram, 2013).

2.9 Management of Cemeteries in Ghana

Traditionally cemetery management only involves the allocation of land for burial, the digging and filling of graves, and the maintenance of the grounds and landscaping. The construction and maintenance of headstones and other grave monuments are usually the responsibilities of surviving families and friends (Brophy, 2006). Some considerations in cemetery management involve inspection and service maintenance machinery and equipment regularly, provide and wear appropriate safety clothing e.g. safety boots, ear defenders, safety goggles, gloves, take special care when clearing litter and rubbish, wear heavy-duty gloves, watch out for broken glass and discarded hypodermic needles. In Ghana, most cemeteries especially large urban cemeteries are owned by government (metropolitan, municipal and district assemblies) Examples of such cemeteries include the Awudome Cemetery, Osu Cemetery which are located in Accra. Nevertheless, some cemeteries are owned and managed by the traditional authorities of the land in which the cemetery finds its. Examples of such cemeteries are the Asere Royal Cemetery, Nikoi Olai Royal Mausoleum and Mantse Ankrah Royal Cemetery all of which are in the Accra Metropolitan Area. Others include the Tafo Cemetery and Banmu, (a royal cemetery for the burial of Ashanti kings) which are located in Kumasi, Ashanti region. History of a cemetery in Ghanaian culture and history deviate a little from that of contemporary history. Before the arrival of the colonial masters, Ghanaians and as a matter of contemporary history. Before the arrival of the colonial masters, Ghanaians and Africans, used to bury the dead at homes and in rooms (Jasmine, 2013).

The concept changed with time as the colonial masters came with the idea of cemeteries. According to the AMA, different sections are created within the cemeteries to accommodate the various religious groups (Arhin, 1994). This includes Catholic, Methodist, Presbyterian and Anglican. Also, the Basel Missionary cemetery which was purely for missionaries. The Awudome Cemetery and the other huge ones in our cities are prime lands that could be put to better use for the construction of hospitals, universities and polytechnics, workers' housing, hospitality centres/hotels and shopping malls. I am saying this, despite my great respect for the dead. But that does not mean that these cemeteries could not be put to better use than for burying bodies (Jasmine, 2013). In the Ghanaian society today, most cemeteries are divided into sections due to the different religious beliefs being practised in Ghana. Mostly there are spaces allocated for the Muslims, Christians and Royals due to the different form of burials these religions practice. Sometimes, within the Christians and Royals due to the different form of burials these religions practice.

City authorities are now saddled with the responsibility of locating another land to replace the over a century-old cemetery (Obour, 2013). Public cemeteries are mostly poorly planned in terms of internal layouts considering access and plots arrangement and they are characterized by poor management and security making them unsustainable. Spaces allocated or demarcated for public cemeteries are mostly encroached upon. This has brought about the deteriorating nature of public cemeteries especially those found in urban areas causing them to poorly serve the population and making them less sustainable.

2.10 Green Burials the Way to Sustainability

Green burial is essentially the way that burial has been practised across the ages until this current dispensation (Green Burial Council, 2010). Green burial, also called a natural burial, eco-burial, or woodland burial is the act of burying remains without the use of chemicals, concrete, ores, or tropical hardwoods. This usually requires a simple wood box, preferably locally and sustainably harvested, or a shroud of biodegradable materials, precluding toxic embalming or concrete liner Green burials occur in a green cemetery. Often the cemetery operator chooses to mark the gravesite with a native tree or shrub (Kerrigan, 2007). Green cemeteries create less environmental pollution than cremation and the graves require less maintenance than traditional options (Francis, 2000). Green burial indicates a trend towards a reciprocal relationship with nature. Bounded ecological areas within cemeteries are managed with an enhanced understanding of natural processes. Research conducted in the United Kingdom found increased decomposition when cadaveric materials were repeatedly reburied on the same site (Carter & Tibbett, 2008). Decomposition was enhanced through soil microbe activity with increasing efficiency with each burial of ovine (sheep) muscle tissue. Soil microbes did not increase in total amount, but the site favoured zymogenous soil microbes able to enhance the rapid decomposition

Green cemetery practices nourish and foster life through enhanced habitat and provide an alternative to current burial practices (Plumwood, 2008). (Feagan, 2008). Green cemeteries provide an opportunity for people to reconnect with the biotic community, literally embedded and embodied. Experiences come together to create culture, which is passed to the next generation. Green

cemeteries create an ecosystem and the deceased becomes an integral part (Kerrigan, 2007). A green burial can also facilitate ecological restoration and landscape-level conservation. Green cemeteries preserve ecosystem function by taking land out of circulation for other resource use, such as forestry or development. Security Issues Security is a concern for most of the cemeteries, but the exact nature of the concern varies by site. Most cemeteries' security issues are partially determined by their ability or desire to manage their border with either physical or personnel barriers.

Cemeteries, according to Rugg (2000), all share some defining physical properties and boundaries marked by a plant such as a hedge, sometimes this separation, originally established primarily for public health and safety concerns, prevents the easy adaption of this space for other perhaps no less important purposes. The dead have always left us material and spiritual legacies (Howarth, 2000). The idea of burial space is mutable; it does not carry the same significance in a uniform way across all cultures and the meaning does not remain static over time (Rugg, 2000). Cemeteries are provided to create a meaningful cultural landscape to serve functional and material purposes of disposing of the dead (Francaviglia, 1971). Cemeteries are designed and used as cultural entities with rich and complex monuments seen as social constructs over time (Matero & Peters, 2008). They offer memorials for the individual as well as society (Francis *et al.*, 2000) creating an opportunity for appreciation over a long-term period. Past and current meanings beyond the primary purpose of burial require recognizing their importance and potential as cultural, historical, scientific and scenic resources (Matero & Peters, 2008). Communities, landscapes, and customs change over some time (Rugg, 2000). Cemeteries record and reflect

cultural inclusion and assimilation within communities at different times (Francis, *et al.*, 2000). Wide ranges exist among different communities concerning the underlying purposes and meanings held by a cemetery.

Common historical practice often sites cemeteries on hilly lands which are less prone to flooding and considered less desirable for agriculture or town expansion. Settlements located cemeteries near but not necessarily within their boundaries (Rugg, 2000; Northway, 2005). A very old cemetery may maintain the original soil profile or native plants providing an ecological link to the past (Wexler, 2008). Removing cemeteries for residential development in cities is not a common practice. (Francis *et al.*, 2000). Cemetery development generally occurred with similar historical pattern, and most did not originally have a regular plot layout (Francaviglia, 1971). The earliest graves cluster in the centre, very similar to city settlement patterns (Francaviglia, 1971). Usually, cemeteries develop into a more sprawling, suburban-type expansion, with the oldest portion located on the highest ground (Francaviglia, 1971). Large family plots evolve over a long period and maybe a microcosm of the larger cemetery (Francaviglia, 1971). Definable visual markers make the cemetery distinct from other types of landscape (Francaviglia, 1971). A defined entrance states the purpose of the site literally and symbolically. The perimeter fence serves two purposes, to keep the living from the dead and the dead from the living (Rugg, 2000). A specific perimeter encloses an area demarcated for burial and maintains an ordered layout within (Rugg, 2000) expressing spatial and architectural preferences of the time. Variations of time and location create recognizable trends (Francaviglia, 1971). Early cemetery plots were offered in perpetuity, giving the plot eternally to that person, and their remains were never to be disturbed (Rugg, 2000). Families

claim control over their plots and conduct culturally appropriate funerary rituals (Francis *et al.*, 2000; Rugg, 2000). They serve and sustain families, the whole community, town or district and become part of their history (Francis *et al.*, 2000; Rugg, 2000). The cemetery reflects the social and economic stratification of the times (Francaviglia, 1971). This in turn reflects the community over many generations, all in the same place, each in their own space (Rugg, 2000). Cemeteries record the changes in culture, religion and wide social influences (Francis *et al.*, 2000). They record the intra-generational information as well as longer-term inter-generational kinship relationships (Francis *et al.*, 2000). Cemeteries may serve a function as a place of joy and remembrance (Huang, 2007), as well as enshrine the deceased placed within (Rugg, 2000). Society protects cemeteries from inappropriate or disrespectful activities (Francis *et al.*, 2000). A cemetery is a sacred space, a place for friends and family to return. Sacredness can be seen in religious terms, but also can include other meanings for cemeteries. These interpretations may be for permanence, visitation, and as a context for grief (Rugg, 2000). These spaces may become more or less sacred over time due to shifting attitudes (Rugg, 2000). The functionality of the site as well as providing an emotional context for grief makes them both sacred and profane locations (Francaviglia, 1971). Many cemeteries are primarily secular, privately or governmentally owned and operated. These quasi-public facilities accommodate limited public access (Northway, 2005). Often located near population centres cemeteries compete with other development for the same desirable land (Francaviglia, 1971). Many people may not want to live near a cemetery, adding complications (Northway, 2005). Ownership and management practices change over time, as each generation defines their appropriate

landscape for grief (Rugg, 2000). In many western countries, cemeteries incorporate into the park system or become tourist attractions (Huang, 2007). Older cemeteries may transform into heritage sites, bringing new problems such as commercialization, looting, vandalism, and inappropriate restoration. These problems can lead to diminished function for venerating the dead (Matero & Peters, 2003).

Generally, a cemetery operator can expect approximately 1,000 plots per acre (Northway, 2005). Managers and planners must consider different ways of using limited available space for burial (Francis *et al.*, 2000). Double-depth plots, the practice of layering one body atop another, increases interments per acre, creating revenue opportunities. This saves space and allows the customer to save money (Northway, 2005), although it has not caught on in the United States (Rugg, 2000). Mausoleums offer another value-added plan for cemeteries, allowing families to pay a premium for a smaller but more visible location that can hold several deceased (Northway, 2005). It is impossible to retrofit existing mausoleums for larger bodies and not uncommon for cemetery operators to receive requests for oversized plots (Northway, 2005). Vaults made of concrete and metal can be used above a casket and below the soil or maybe used above and below the casket. required by many traditional cemeteries they prevent settling, allowing the ease of use of large lawn maintaining machinery.

Sustainable Traditional Burial Customs by Religions

Christianity

In the early years of Christianity, death was seen as a private affair, except in instances where one was struck down on the battlefield or by accident. Christian views and responses to death and dying further developed during the

Medieval Latin Church, when the rise of the saints changed the relationship between the living and the dead. Remains of those honoured as “saints” were housed on church properties within the city walls (Fredrick, 2016). Since then, Christianity has used the transition from living to dead as a reminder of one’s limited time on earth, and funerals and burials became more inclusive community affairs. Embalming is an acceptable practice within the Christian religion. While cremation is also acceptable, this process typically does not occur until after a funeral mass, and the ashes generally are only be buried in the ground, within a tomb, or placed at sea, but never scattered (Everplans 2015). Vigils and wakes are widely practised and accepted; those closest to the deceased often present eulogies and tributes. No law or rule requires a memorial period or a memorial event, within the Christian religion.

Islam

Islamic law (“shariah”) states that the body of the deceased should be buried at the earliest opportunity from the time of passing (Everplans, 2015). Autopsies, embalming (unless required by local laws), and cosmetology are generally not accepted nor are they routine rituals when preparing the body for burial; cremation is forbidden in Islamic law. To prepare for burial, close same-sex family members will wash the body three times, in a specific order: upper right side, upper left side, lower right side, lower left side. Once clean and prepared, the body is then shrouded, secured with three ropes (one tied above the head, two tied around the body), and then covered in a white sheet (Everplans, 2015). Because the body must be buried at the earliest opportunity from the time of death, viewings, wakes, or visitations do not traditionally occur. However, the funeral (“Janazah”) is a public affair where prayers are performed

by many members of the deceased's community, typically occurring within the mosque's courtyard, not within the interior spaces themselves (Everplans, 2015). After prayers and blessings have been said, the body is then transported to the cemetery for burial, with only men traditionally allowed to attend the burial. The grave must be dug perpendicular to the direction of Mecca ("qiblah"), and the body placed on its right side, facing Mecca. After the body has been placed in the grave, a layer of stones or wood is placed atop of the body, preventing the body from coming into direct contact with the soil that will fill the grave. It is traditionally forbidden to erect large monuments or elaborately decorate the grave. However, for loved ones to recognize the grave, a small marker, typically a stone is allowed to be placed at the gravesite (Everplans, 2015). Under Islamic law, following the burial service, a period of mourning will last for 40 days (FuneralWise, 2017).

Hindus

Hindus believe that life and death are part of the concept of rebirth ("samsara"). If possible, once death seems imminent, the body should be transferred to a grass mat on the floor, where a small amount of water from the Ganges River is poured into their mouth; if this isn't possible before death, then it should take place as close to the time of death as possible (Everplans, 2017). Following the passing, those loved ones surrounding the deceased should avoid unnecessarily touching the body, as it is viewed as tainted. Embalming is an acceptable practice within Hinduism, and family members and close friends traditionally wash the body. When washing the body, the deceased's head must face southward, and a lighted oil lamp and a picture of the deceased are placed next to their head.

Traditionally, the body is washed in a blend of yoghurt, milk, honey, and ghee (clarified butter), and those washing the body generally chant prayers and blessings (Everplans, 2017). Following the holy bath, the big toes are tied together, hands are placed palm to palm, and the body is shrouded in a plain white sheet. A viewing or wake is typical among the Hindu, where family and friends gather around the casket to recite mantras. Traditionally, all Hindus are cremated, except saints, babies, and children (Everplans, 2017). The cremations usually take 25 places on the Ganges River in India, where the family builds a pyre for the casket to rest upon. The Karta (“priest”) will set the pyre ablaze and walk around the structure in a counter-clockwise motion while sprinkling holy water on the pyre. Those gathered to pay their respects to the deceased will stay until the body is entirely burned. Following the cremation, a period of mourning will last for 13 days (Everplans, 2017). Traditionally, on the first anniversary after the death, family members observe a memorial event, which pays respect to the deceased.

Buddhism

(The Buddhist Society, 2017), Buddhism has always viewed death as an inherent part of life itself, and so believes that the act of dying is simply another stage of life that one takes. Further, the Buddhists believe that, if an autopsy is required, then the body should not undergo one for at least three and a half days, nor should the body be embalmed at all, if possible. (The Buddhist Society, 2017). While there is not a singular funeral service practised for all of Buddhism, the vast majority of practising Buddhists choose to be cremated, as was the case of the Buddha. (The Buddhist Society, 2017). Tibetan Buddhists believe that death and dying are an important subject because dying reveals which karma

will lead the deceased person to the next rebirth. Further, since firewood was scarce throughout Tibet, and the ground was often unsuitable for burial, the practise of cremation was reserved main.

Summary of Chapter

The issue of management of most urban public cemeteries is of great eminence lately. There have however been interesting revelations on how urban public cemeteries are not in good shape making them impossible to serve the population is it intended to serve It has generally also been revealed that public cemeteries are divided into sects to cater for the different traditions and customs of the populace. The division is done mainly on denominational bases, however, in the Ghanaian context, aside spaces for the various denominations and the general public, there are spaces also allocated to the royals since they are recognized as the custodians of the land. This is however short-lived because there is a limited amount of land. In many larger towns and cities, the older cemeteries which were initially considered to be large enough often run out of space for new burial and there is on vacant adjacent land available to extend the cemetery or even land in the same area to create a new one. Authorities have no option but to establish new cemeteries on the periphery of towns and cities which are sometimes protested by residents thus these communities shy away from cemeteries.

These are some of the lessons learnt from the literature review which will be carried unto the main work. The next chapter, therefore, looks at the profile of the study area and the methods and procedures followed to undertake the study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The methodology of every research work includes the design, the sources, and the methods of collecting and analyzing data. It is the heart of the study. The generality of the findings depends on the methodology used (Creswell, 2013). Therefore, the choice of methods must be thoroughly chosen to minimize any chances of bias. The chapter describes how the research was carried out. It explains the design of the research, the determination of the sample size, the sample frame, the target population of the research, the sampling techniques, mode of data collection, and finally the data analytical techniques.

3.2 Study Area

The Accra Metropolitan Area which lies within the geographical coordinates 5°33'N 0°12'W is one of the Two Hundred and Fifty-Four (254) Metropolitan, Municipal and Districts in Ghana, and among the Twenty-Six (26) such districts in the Greater Accra Region with a population of 1,665,086 as of 2010. The district was established by the Local Government Act of 1993 (Act 462) and Legislative Instrument 1615 Accra. As far back as 1961, the district has been coterminous with the City of Accra, which also serves as its capital. Accra is the capital of Ghana covering an area of 225.67 km² with an elevation of 61m above sea level. Owing to its location in the Dahomey Gap, where the coast runs parallel to the prevailing moist monsoonal winds, Accra features a very marginal hot semi-arid climate that borders on the tropical wet and dry climate. The average annual rainfall is about 730 mm, which falls primarily during the two rainy seasons in Ghana. The main rainy season begins in April

and ends in mid-July, whilst a weaker second rainy season occurs in October. Rain usually falls in short intensive storms and causes local flooding in which the drainage channels are obstructed. Very little variation in temperature occurs throughout the year with a mean annual temperature ranging from 25.9 °C in August – 29.6 °C in March, with an annual average of 27.6 °C. As a coastal city, Accra is vulnerable to the impacts of climate change and sea-level rise, with population growth putting increasing pressure on the coastal areas. Drainage. Today, the Accra Metropolitan District is one of the 10 districts that make up the Accra Metropolitan Area, an area that serves as the capital of Ghana. The study area covers Ablekuma South, Okaikoi south and Ashiedu keteke Sub-metropolitan Area. Ablekuma South. The Sub Metro has an estimated population of 257,543 with 22,751 houses and 69,401 households according to the 2010 housing Census. It has two (2) cemeteries.

Okaikoi South. This is one of the three Sub Metropolitan District Council of the Accra Metropolitan Assembly. The 2010 Population and Housing Census estimated the population of the Sub-Metro as 121,718 with 13,378 houses and 34,800 households. It has four (4) cemeteries. The Ashiedu Keteke Sub Metro is one of the three Sub Metropolitan District Councils of Accra Metropolitan Assembly (AMA). The 2010 Population and Housing Census estimated the population of the Sub-Metro as 117,525 with 13,732 houses and 34,964 households. The nature of the Sub-Metro, therefore, attracts an estimated daily influx of about 2 million people from various walks of life who come into the City for Administrative, Educational, Industrial and Commercial concerns.



Figure 1: Map of Greater Accra Metropolis (Accra Metropolitan Assembly, 2014)

3.3 Research Design

This research is designed with a survey methodology of the sampling of individual units of employees from a population (Babbie, 2015). It makes use of the structured and other open-ended questionnaires as the main survey data collection technique. The Statistical Package for the Social Sciences (SPSS, Version 22), was used to analyze the responses of the questionnaires, from which conclusions and recommendations are given. The research method consists of research strategies, research choices, and the time horizons of the research. It gives the strategy of enquiry, which moves from the underlying philosophical assumption to the research design and data collection (Ary, Jacobs & Razavieh, 2012).

The study is both descriptive and exploratory in design. Descriptive research is a scientific method that focuses on observing and describing the

behaviour of a subject without influencing it in any way (Schutt, 2011). The study is both descriptive and exploratory in design, focusing on sustainable use and the management of cemeteries within the Accra Metropolitan Area. The study is descriptive because it seeks to describe the cemetery management practices of the sampled cemeteries within the metropolis. As noted by Creswell (2013), exploratory research seeks to establish the relationships existing between the study variables to determine their cause and effect. The study examines the sustainable use and management of cemeteries within the Accra Metropolitan Area.

3.4 Sample Size

The target population for the study are selected employees from the sampled cemeteries within the metropolis. The management staff, supervisors, non-management staff, and other stakeholders constituted the target population of the study. Overall, thirty-eight (38) employees and stakeholders constituted the actual sample size for the study out of the targeted fifty (50) respondents.

3.5 Sampling Procedure

The research approach in the view of Quinn (2010), involves the collection, aggregation, and analysis of data by the usage of graphs and figures. There are three types of research approaches according to Babbie (2015), namely; the quantitative, the qualitative and the mixed methods research approaches. The qualitative research approach is used to answer questions about the complex nature of a phenomenon and the purpose in describing and understanding the phenomena with the use of words (Fisher, 2010); whereas the quantitative research approach is an approach used in analysing numeric information in the statistical form (Creswell, 2009). The mixed methods research

approach is used when the researcher combines the elements of both the quantitative and qualitative research approaches (Saunders, Lewis, & Thornhill, 2009). In this study, the researcher made use of the mixed-method research approach by use of the quantitative methodology, in the form of the structured closed-ended questionnaire, and also the qualitative methodology, in the form of the open-ended questionnaire.

The quantitative methodological approach was adopted because it facilitates comparison and statistical aggregation of the data that would be collected and further would give a broad and illustrative set of findings presented concisely and economically. The qualitative research approach was also adopted, as it typically produces a wealth of detailed information about a much smaller number of people and cases (Young, 2009). This increases the understanding of the cases and situations studied, but it also reduces the possibility of generalizations (Quinn, 2010). Furthermore, the mixed methodological research approach provides objectivity because the respondents are the ones who provide the numbers; and therefore' the opinion of the researcher does not have any impact on answering the research questions, or the testing of the research hypothesis. In a general sense, this approach is used in explanatory researches as in the case of this particular study.

Regarding the research strategy, Quinn (2010), notes that research strategy is a plan showing the way how the research goes on and how the research questions will be answered. Quinn (2010) identified five research strategies including experiment, survey, case study, archival records, and history. The survey strategy is usually used in a deductive approach and allows the researcher to collect quantitative data. It is also the most popular strategy to

answer who, what, where, how many and how much questions. Thus, it tends to be used in descriptive such as this one. Since this study intends to describe the sustainable use and management of cemeteries within the Accra Metropolitan Area, the survey research strategy is the best strategy for this particular study. In planning research, the following question is important “is this research done in a particular time or is it done over a given period?”. According to Saunders *et al.* (2009), a study of particular phenomena taken at a particular time is cross-sectional research. On the other hand, those studies taking place over time are called longitudinal studies. The mixed methodological research approach was adopted by the researcher.

Table 3.1 therefore shows the sampling distribution of respondents across the various cemeteries within the Accra Metropolitan Area. As illustrated in Table 3.1, the sample size of thirty-eight (38) respondents, was therefore deemed most appropriate in the current study. The sampling technique adopted for the study was the non-probability sampling technique, specifically, the purposive and convenient sampling techniques (Schutt, 2011). The purposive sampling technique was deployed to specifically target the sampled cemeteries within the Accra Metropolis. This was supposed to aid the researcher in achieving the research objectives. The convenient sampling technique was also used to select the appropriate staffs from the sampled cemeteries. By the convenient sampling technique, only the targeted employees of the sampled cemeteries who were present at the time of the data collection and also willing to participate in the study were considered (Fisher, 2010).

Table 3. 1: Sampling Distribution of Cemeteries

Name of Cemetery/Institution	Actual Response (Participants)	Percentage (%)	Cumulative Percent (%)
Niikoi Olai Royal Cemetery	6	15.8	15.8
Mamprobi Sempe Cemetery	5	13.2	29.0
Bubuashie Cemetery	5	13.2	42.2
Mantse Ankrah Cemetery	5	13.2	55.4
Awudome Cemetery	5	13.2	68.6
Stakeholder Institutions	3	7.9	76.5
Accra Metropolitan Assembly	3	7.9	84.4
Environmental Protection Agency	3	7.9	92.3
Lands Commission	3	7.9	100.0
Total	38	100.0	100.0

Source: Field Survey (2020)

3.6 Data Collection Instrument

Research techniques are the step-by-step procedures in the collection and analysis of data (Ary, Jacobs, & Razavieh, 2012). The procedure employed in this study was to solicit data through the use of structured and other open-ended questionnaires. The questionnaire was structured based on the research objectives. The first section of the questionnaire solicited information on the biographic data of the respondents such as gender, age, educational background and other socio-economic characteristics. The second and third sections dealt with issues relating to the various research objectives.

The adoption of the closed-ended questions made it easier for the responses to be coded and analyzed (Quinn, 2010). It also made it easier for the researcher to collect the data within a short time. The respondents were ticking the appropriate answers after reading the questions and with the response choices given; there was no need to further explain the questions to the respondents.

However, questionnaires can be limiting by suggesting ideas to the respondents to which he or she will not otherwise have thought about. Again, respondents can answer questions anyhow or even misinterpret some questions. All in all, comparing both the merits and the demerits of using questionnaires, the merits far outweigh the demerits in a study like this, and thus it was expected that the use of questionnaires will have a good impact on the study (Fisher, 2010). All the items intended to measure the variables were adapted from previously validated instruments (Babbie, 2015). They were modified such that the focus was on the Ghanaian context. The cemetery management practices were rated on a five-point Likert-Scale, ranging from 1, which indicates strongly disagree to 5 indicating strongly agree. Each scale was scored by aggregating the total scores for each question on a given measure and reporting the total score as the composite score for the measure. The dependent variable which was also measured by the sustainable use of the cemeteries (sustainability performance) was also rated on a five-point Likert-Scale, ranging from 1, which indicates very low, to 5 indicating very high. Each scale was again scored by aggregating the total scores for each question based on performance on a given measure, and the total score was reported as the composite score for the measure.

3.7 Data Collection

According to Ary, Jacobs and Razavieh (2012), there are essentially two kinds of data collection methods: primary data collection and secondary data collection. Babbie (2015), further posits that primary data are data gathered purposely for a particular research problem or study through the use of procedures that will fit the research problem. Babbie (2015) further noted that each time primary data is collected, a fresh data set is subsequently added to the

already existing store of social knowledge about the phenomenon under study. This store of knowledge generated by other researchers is made available and may be utilized by other researchers or the general research community which then becomes secondary data.

The study relied on primary data. Primary data were collected through structured questionnaires, and other open-ended questionnaires, and which were administered using both face-to-face and self-administration. Questionnaires were distributed to employees within the cemeteries and other stakeholders, such as the Accra Metropolitan Authority (AMA), the Environmental Protection Agency (EPA), the Lands Commission, and the Traditional Authorities. The respondents were given an ample time of over one month to answer all questions on both the structured and unstructured questionnaires. The task of designing a questionnaire involves the development of a wording that is precise, concise and unambiguous which for that matter allows respondents to successfully answer the questions that it seeks to ask (Creswell, 2013).

Because of this, Fisher (2010), suggests that the questionnaire for a study like this should be pre-tested for re-wording, deleting, and or adding new items should it become necessary for better comprehension of the questionnaire by the respondents. For these reasons, the questionnaire for the study was pre-tested at the Mamprobi-Sempe Cemetery. The researcher personally distributed the questionnaires to five (5) respondents who willingly participated in the pre-test. The feedback was analyzed and the necessary changes were subsequently effected.

3.8 Data analysis and Presentation

Descriptive and inferential statistical methods were used to analyze the collected and gathered data. Previous studies about cemetery management and performance mainly used correlation and regression analyses in their studies. For this study, the survey data collected were analyzed using the Statistical Package for the Social Sciences (SPSS, Version 22), to assess the extent of the relationship between the various study constructs. The demographic characteristics of the respondents, the effect of cemetery management practices on the sustainability of cemetery, the role of key stakeholders in the management and control of cemeteries, and the sustainable use of cemeteries were examined using descriptive statistics such as percentages, means and standard deviations. Inferential analysis was also conducted on the dataset using correlation to determine the relationship between the cemetery management practices of cemeteries. Level of significance was set at $p < 0.05$. The Cronbach alpha reliability test measured the internal consistency of the dataset on cemetery management practices.

3.9 Ethical Consideration

To address the ethical considerations of the research, the participants were informed about the purpose of the study. There was voluntary participation of workers at the cemeteries and respondents were asked to withdraw if they wish to do so. Also, respondents were provided with information and assured that the research was for academic purposes for them to understand the implication of taking part in the research. Privacy and anonymity of respondents were adhered to during the administration of questionnaires throughout the

study. Discussions and analysis on cemetery management were very objective devoid of personal interest and prejudice.



CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the empirical findings of the study in the context of the objectives as stated in the introductory chapter. The study focused on sustainable use and management of cemeteries in the Accra Metropolitan Area. The results of the study are eventually discussed relative to the empirical literature and the research objectives, which could be recalled as follows:

- i. To examine the cemetery management practices of cemeteries within the Accra Metropolitan Area
- ii. To evaluate the sustainable use of cemeteries within the Accra Metropolitan Area
- iii. To ascertain the effect of cemetery management practices on the sustainability of the cemeteries within the Accra Metropolitan Area
- iv. To evaluate the role of other stakeholders in the cemetery management practices of cemeteries within the Accra Metropolitan Area

4.2 Demographic Characteristics of Respondents

A total of thirty-eight (38) respondents were sampled from five (5) cemeteries and four (4) stakeholder institutions in the Accra Metropolitan Area; The cemeteries include the Mantse Ankrah Cemetery, the Mamprobi-Sempe Cemetery, the Bubuashie Cemetery, the Niikoi Olai Cemetery, and the Awudome Cemetery.

The respondents who were all employees of the sampled cemeteries and stakeholder institutions were made up of non-management staff, a few supervisors, and some management staffs. Overall, thirty-eight (38) respondents

constituted the actual sample size as used in the study, out of the total number of fifty (50) target respondents initially envisaged to partake in the study. The sample size of 38 respondents therefore gave the researcher an overall response rate of 75%, out of the target population of 50 participants.

4.2.1 Gender Distribution of Respondents

From the gender distribution of the 38 respondents, the majority of them were males and the minority were females. About 76.3% were males and the rest, 23.7% represented females”. “This means that the information regarding the relationship between cemetery management practices and sustainability of the sampled cemeteries in the Accra Metropolitan Area, was obtained from both male and female employees of the sampled cemeteries, and therefore the findings are not gendered biased”. The gender distribution of the sampled respondents is therefore presented in Table 4.1 below.

Table 4. 1: Gender Distribution of Respondents

Category	Frequency	Percentage
Male	29	76.3
Female	9	23.7
Total	38	100.0

Source: Field Survey (2020)

4.2.2 Age Distribution of Respondents

The age of the respondents implies the ability of the participants to determine their voluntary participation in the study. As demonstrated on Table 4.2, the majority of the respondents, that is, about 42.1% indicated that they were between 30-39 years of age, and 28.9% indicated they were within the age group of 20-29 years”. “While 10.5% of the respondents were within the age range of

40-49 years of age, the remaining 18.4% were 50 years and above”. “Overall, the 38 respondents who participated in the study were 20 years of age and above”. “This means that all the respondents that participated in the study were matured enough to determine their voluntary participation in the study”. The findings revealed that a large majority of people working in cemeteries are experiencing significant shifts in the distribution of the populations by age and this is moving from an adult population to the youthful populations. This would help reduce social vices within the society as most of the youth are engaged by the Assemblies.

Table 4. 2: Age Distribution of Respondents

Category	Frequency	Percentage
20-29 years	11	28.9
30-39 years	16	42.1
40-49 years	4	10.5
50 years and above	7	18.4
Total	38	100.0

Source: Field Survey (2020)

4.2.3 Educational Qualification of Respondents

“The educational qualification of respondents is of prime significance in every research”. “The educational qualification of the respondents has significance on the ability of the respondents to read, critically analyze, understand, and interpret all the issues being raised on the research instrument, most especially regarding the topic under discussion”. “The educational qualification of the respondents is therefore illustrated on table 4.3”. “As demonstrated on table 4.3, out of the total number of 38 respondents, that is 47.4%, equivalent to 18 respondents had a minimum qualification of a senior

high certificate. The next on the scale of higher frequencies are those with a Diploma/HND qualification, representing about 26.3%, and equivalent to 10 respondents. Next on the scale are those with a Junior High (JHS) certificate, representing about 23.7% of the total respondents, and finally, 2.6% of the total population had a bachelor’s degree.

Table 4. 3: Educational Qualification of Respondents

Category	Frequency	Percentage
Junior Secondary School	9	23.7
SHS/O/A-Level	18	47.4
Diploma	10	26.3
Degree	1	2.6
Total	38	100.0

Source: Field Survey (2020)

The implication from Table 4.3 is that approximately about 47.4% of the respondents could be said to have a minimum qualification of senior high school (WASSCE), and so they were deemed to have the capacity to comprehend, analyze, evaluate, and fully criticize all the issues being raised on the research instrument by the researcher. However, with 23.7% of respondents having low education, it implies that these would have trouble getting ahead in life, they would tend to have poor health since they would be assigned the hard job of digging and covering of graves. Also, they would lack a voice and feel insecure because of low salary. This would affect their work output and most often would be exploited by their superiors making them more vulnerable to the work they perform as shoddy work would be done for clients as a result of weak supervision by managers of the cemeteries.

4.2.4 Job Tenure of Respondents

The number of years' working experience regarding the topic under discussion is of prime significance in achieving the main objective of the study. The result of the job tenure of respondents is indicated on the table.

Table 4. 4: Job Tenure of Respondents

Category	Frequency	Percentage (%)
1-5 years	1	2.6
6-10 years	17	44.7
11-15 years	20	52.6
16 years and above	0	0.0
Total	38	100.0

Source: Field Survey (2020)

From Table 4.4, 1 respondent representing 2.6% have been working with his respective cemetery from 1 to 5 years; 17 respondents, representing about 44.7% have been working with their respective cemeteries from 6 to 10 years; and finally, 20 respondents representing about 52.6% have been working with their respective cemeteries from 11 to 15 years. Longer experience means that they would be exposed to the do's and don'ts of their job and be able to learn to navigate the cemetery to solve client service challenges that may arise such as locating old graves and searching for old burial records and death certificates, a requirement for Social Security as well as Insurance claims. Overall, 37 respondents representing about 97.3% of the sampled participants had something to do with cemeteries, from 6 years, up to about 15 years. Table 4.4 is therefore an illustration of the pragmatic working experience of respondents, indicating their number of years' working experience.

4.2.5 Position of Respondents Held at the Various Cemeteries

To achieve the main objective of evaluating the relationship between cemetery management practices and sustainability, the thirty-eight (38) sampled respondents were further categorized into three main groups: management staff, non-management staff, and supervisors. Out of the total number of 38 respondents, as illustrated on Table 4.5, twenty-four (24) of them were non-management staffs, eight (8) were management staffs, and six (6) were supervisors. Table 4.5 is an illustration of the position held by all the respondents.

Table 4. 5: Position held by Respondents

Category	Frequency	Percentage
Non-management staff	24	63.2
Supervisors	6	15.8
Management staffs	8	21.1
Total	38	100.0

Source: Field Survey (2020)

From Table 4.5, out of the total number of 38 respondents, 63.2% equivalent to 24 respondents constituted non-management staffs, 15.8% equivalent to 6 respondents were supervisors, and 21.1% equivalent to 8 respondents were management staffs, indicating that the cemeteries are not left without control but have the day to day processes for managing and maintenance of cemeteries within the Accra Metropolitan Area. Overall, far more than half of the respondents, that is, 63.2%, and equivalent to 24 respondents, were non-management staffs, who were very much involved in the day-to-day activities of cemetery management within the Accra Metropolis.

4.3 Management Practices of Cemeteries within the Accra Metropolitan Area.

The first study objective as stated above was geared towards examining the cemetery management practices of cemeteries located within the Accra Metropolitan Area. To this end, the study examined four (4) main dimensions of cemetery management practices, including; the environment (ENV), the structure (STR), the facilities (FAC), and security (SEC). The outcomes were measured on a Five-Point Likert Type of Scale. The mean, Cronbach Alpha values and the P-values were used to present the findings, and the results are shown in Table 4.6.

Table 4. 6: Cemetery Management Practices of the Accra Metropolis

Number of Respondents = 38	Mean	Cronbach Alpha	P-Values
The Environment (ENV)	3.43	0.57	0.000*
The Structure (STR)	2.89	0.45	0.000*
The Facilities (FAC)	3.19	0.28	0.000*
Security (SEC)	3.75	0.23	0.4140
Average Cemetery Management	3.02	0.36	0.0385*

Source: Field Survey (2020)

***Statistically significant at 5% alpha level (0.05)**

Scale: 1=“Strongly disagree”, 2=“Disagree”, 3=“Neutral”, 4=“Agree”, 5=“Strongly disagree”

Table 4.6 is a demonstration of the cemetery management practices of the sampled cemeteries within the Accra Metropolis. Cronbach's alpha coefficients were used to measure the reliability of the items (Cronbach, 1951). The coefficient varies from zero for no reliability to one for maximum reliability. Where the value of the coefficient is 0.60 and above the scales are judged to be reliable (Creswell, 2013), and where the values are below 0.60, they were judged

to be unreliable. From table 4.6, the four (4) dimensions of cemetery management practices were found to be statistically significant at the 5% significant level. The environment (ENV) was found to be statistically significant at the 5% level of significance (M=3.43, CA=0.57, P-Value=0.000*<0.05).

Findings revealed that Asere cemetery was not clean and had an overgrowth of weeds covering graves. The Nikoi Olai cemetery was clean and graves could be visibly sceneries. All cemeteries had no refuse bins with covered lids placed at the gate. Only the Awudome cemetery had bins and yet there was an overgrowth of weeds at the time of conducting the study. Also, all the five cemeteries except Awudome had no water facility in and around the cemetery. This is not good for proper hand hygiene practices on the part of cemetery workers and the general public. It was also observed that there is no soil and surface water contamination from cemeteries. However, decomposition of a human corpse can lead to seepage of decaying materials without sanitary burial which involves digging a standardize 6ft grave space accepted by the W.H.O. (WHO, 1998).

The findings revealed that the Awudome Cemetery do not follow this standard simply because of the inadequacy of land for burial. On the contrary, the study shows that royal cemeteries such as the Mantse Ankrah Cemetery and the Nikoi Olai Cemetery completed as they tend to own land as traditional leaders and therefore restrict burials to only people of royal lineage. The environment plays a significant part since the burial process takes place within the environment which play host to bacteria, viruses, organic, inorganic and chemical materials that could lead to the outbreak of diseases. The results were

in support of a similar study by Cloke and Jones (2004) who studied the historical development of the Victorian Cemetery in Bristol-Arnos Vale where trees have been enrolled into a particular network of environmental change and conservation. The state of the environment was noted to have played a key role in the history and development of the cemetery. Francis, Kellaher and Neophytou (2000) in a study on sustaining cemeteries acknowledged the relevance of promoting clean sanitation at the cemetery.

The structure (STR), was also found to be statistically significant at the 5% significant level (M=2.89, CA=0.45, P-Value=0.000*<0.05). The facilities (FAC) was further found to be statistically significant, again, at the 5% significant level (M=3.19, CA=0.28, P-Value=0.000*<0.05). The state or structure and availability of basic sanitary facilities in cemeteries was surveyed by Nielson *et al.* (2015) in Sierra Leone following the incidence of Ebola Virus disease epidemic. Recommendations were made for the improvement of the sanitary conditions and facilities as well as security in cemeteries in Sierra Leone.

All five (5) cemeteries showed the lack of a well-designed landscape with walk spaces in between graves that portrays the dignity and beauty of Metropolitan cemeteries. The entrance of all cemeteries had gates for control of hearse and visitors. Findings further revealed that all the cemeteries are walled. It was discovered that patches of the wall at Awudome were broken and this weakens the security situation at the cemetery leading to the removal of metal epitaphs for marking graves. All thirty-eight (38) respondents said all five (5) cemeteries lack well designed sitting areas with benches designated as waiting areas for the public to relax during burial. All respondents indicated that there

were hand washing facilities at the Awudome cemetery for visitors to follow hand hygiene protocols. A study by Nielson *et al.* (2015) in Sierra Leone noted the absence of handwashing facilities, dilapidated walls and tombstones and poor road network. The sanitation in cemeteries should be improved in areas such as the provision of handwashing facilities and the provision of a waste bin for the collection of waste.

Also, findings showed that all the cemeteries had waste disposal bins and parking facilities for visitors, however, this had not been developed to generate revenue and therefore had no formalized security to control orderly parking of vehicles. This situation creates chaos and confusion as to the general public park at their own risk sometimes leading to theft. All thirty-eight (38) respondent indicated that all five (5) cemeteries lack adequate washroom facilities for cemetery supervisors, non-management staff as well as the general public, this leads to indiscriminate urination and open defecation leaving portions of the cemetery with vitiated air and hence affecting the general cleanliness of the cemetery. Finally, the security (SEC) architecture of the various sampled cemeteries was found to be statistically insignificant at the 5% significant level ($M=3.75$, $CA=0.23$, $P\text{-Value}=0.4140 > 0.05$). The results may be since the cemetery is seen as a sacred place which may ward off invaders. However, there have been reports of desecration of tombs mainly to steal valuables such as gold or jewelry or the exhumation and burning of remains despite the memory it holds for the bereaved families. Mehrdad (2012) surveyed the desecration of graves in modern Iran noticed that the exhumation and burning of remains which persisted in the 20th century have taken a new dimension in the form of mass graves and a systemic desecration of cemeteries. Joost (2006) reported on the destructive

diggings of early antiquarians and the careful, 'scientific', excavations of professional archaeologists. The 'desecration' caused by a lack of respect for the spirits and the 'traditional' rules regarding the site. Other issues raised included the removal of artefacts, the appropriation of the site and distancing caused by the encircling fence, management of the site as a 'business', and the control of ceremonies. A typical example of a desecration incidence occurred on 1st March 1978, where Chaplin's coffin was dug up and stolen from its grave by two unemployed immigrants, Roman Wardas, from Poland, and Gantcho Ganey, from Bulgaria. The body was held for ransom in an attempt to extort money from Oona Chaplin. The pair were caught in a large police operation in May, and Chaplin's coffin was found buried in a field in the nearby village of Noville. It was re-interred in the Corsier cemetery surrounded by reinforced concrete (Robinson, 1986; Yasser, 2012). On the average, the cemetery management practices had an overall significance level of 5%, ($P\text{-Value}=0.0385^* < 0.05$), indicating that the questions asked on the research instrument, as well as the responses from the respondents, were on the average, statistically significant at 5% significant level.

Cemetery management practices include siting new graves, locating old broken and dangerous graves, recycling old graves by digging and covering dug graves marking graves with epitaphs for easy identification and remembrance of the dead. The study reveals that cemeteries such as the Mantse Ankrah Cemetery and the Awudome cemetery had trees planted in them and can therefore be transformed into a garden cemetery in the future. Also, the study shows that four (4) of the cemeteries had spaces as walkways, this is due to low patronage. However, there are no spaces in between graves, no walkways for bereaved

families at the Awudome cemetery which had no landscaping and this made the burial ground muddy especially during the raining season. *Nee Johnson*, a cemetery manager at the Awudome Cemetery, says “This work is my passion but there are a lot of challenges managing it, especially during the raining season, we tend to have soil erosion on walkways sometimes weakening the base of constructed tombstones, exposing graves and making tracing of graves by families very difficult”

The study also reveals that cemetery supervisors which account for 15.8% of respondents, assign resources such as sanitary tools for examples spade, shovels, pickaxes, burial ropes as improvised lowering mechanisms, Ali brooms among others personal protective clothing to non-management members which accounts for 63.2% of respondents involved in the day to day management of the cemeteries. The study further shows that cemetery managers in the various Accra cemeteries plan for burials that had been booked in their cemeteries except for the Royal Mausoleum which most often remained under lock and key by caretakers. The findings also revealed that as part of management practices, families obtain relevant burial permits and are booked for burial before the burial is allowed to take place smoothly. They also manage visitors to the cemetery who comes to pay respects to their loved ones by unveiling tombstones. In connection with the first objective of examining the cemetery management practices of the sampled cemeteries within the metropolis, the study revealed that all the four (4) dimensions of cemetery management practices, on the average, were found to be statistically significant at the 5% significant level. A significant relationship was noticed between the cemetery management practices and the age and job tenure of the respondents.

4.4 Sustainable Use of Cemeteries within the Accra Metropolis

The second specific objective of the study was to evaluate the sustainable use of the sampled cemeteries within the Accra Metropolis. To this end, the sustainability, in terms of the sampled cemeteries, were measured on a Five-Point Likert Type of Scale. The outcomes of the respondents' responses are illustrated in table 4.7. The sustainable use of cemeteries within the Accra Metropolis has been demonstrated in table 4.7. The financial support of cemeteries to enhance management of the sampled cemeteries in the Metropolis was low, with a mean score of 2.44, and a standard deviation of 0.85. Low sustainability of the sampled cemeteries was achieved in each of the following indicators: financial support of the cemetery (M=2.45, SD=0.76); land use pattern of the cemetery (M=2.66, SD=0.88), management performance of the cemetery (M=2.66, SD=0.97); employee morale at the cemetery had the lowest mean (M=1.76, SD=0.75); customer satisfaction and service delivery of the cemetery (M=2.40, SD=0.82). The long-term planning and sustainability remain a challenge in managing all the sampled cemeteries within the Accra Metropolitan Area. The study revealed that all cemeteries had challenges. These include a shortage of land for cemeteries, insufficient budgetary support for cemeteries from the Assembly, poor land-use patterns due to a weekly average of twenty burials at the Awudome cemetery. All cemeteries the study shows are technically full implying that if burials were to be in a properly arranged manner there would not be space left for any burial. The findings further revealed that a key solution to the diminishing availability of land for burial is the usage of old graves as a means of providing grave spaces for burial in an attempt to maintain the sustainable burial ground. This acceptable practice by the W.H.O has been

ongoing without members of families knowing due to limited knowledge of exposure to alternative ways of internment which includes cremation which is outside the scope of the study. *Zico Armah*, a worker at the Awudome Cemetery warns: “there is no space and we search for days and weeks to locate old graves and earmark them for re-using and this is a huge problem as some families resort to legal means when their graves are removed to make way for fresh burials”. This has been the practice places such as Britain, Berlin and others. Cemeteries in Berlin are converted into parks, playground and housing with the concern that they use a lot of space and are terrible for the environment. Re-use of old graves has been adopted by a certain cemetery in Britain as a sustainable solution to overflowing graveyards. However, the act has been implored to be conducted with sensitivity (Fairbairn, 2017). Rugg and Holland (2016) undertaking a study on the ethics of grave re-use indicated that grave reuse cannot be ethically evaluated simply by adverting to cognate issues, such as archaeological and medical ethics, since grave re-use comprises a very specific type of disturbance. Whilst there is no general ethical prohibition against disturbing the dead, a more detailed analysis is required for special cases. It is argued that even granted that posthumous harms exist, on a proper understanding of what motivated purchase of perpetuity graves their re-use does not constitute prohibitive posthumous harm. Objections to grave re-use on the grounds of the wellbeing of the living are then considered. Repugnance towards grave re-use is grounded in solicitous attitudes towards the dead and ontological anxiety about the fate of our own and our loved one’s bodies. Nonetheless, repugnance should not be a weighty consideration in the policy debate.

Table 4. 7: Descriptive Statistics on the Sustainable Use of Cemeteries

	No. of Responses	Mean	Std. Deviation
Sustainable use of a cemetery			
Financial support of the cemetery	38	2.4474	0.76042
land use pattern at the cemetery	38	2.6579	0.87846
Management performance of the cemetery	38	2.6579	0.96636
Employee morale at the cemetery	38	1.7632	0.75101
Customer satisfaction and service delivery	38	2.3947	0.82329

Source: Field Survey (2020)

Scale: 1= “Very low”; 2= “Low; 3= “Moderate”; 4= “High” and 5= “Very high”

The study revealed that 63.2% of non-management respondents said low morale affect the level of services rendered at the cemetery and sometimes family members desire to assist with the actual burials by covering graves but are only allowed to first to put sand on the vault as a sign of emotional connection with the dead. The morale of cemetery workers seems to be low and more especially on days without burial. Workers at a cemetery who clean the surroundings, dig graves and cover them, clean headstones and guide visitors to locate their old graves experience broken moment however *Doe Bayu* a non-management worker at the Awudome cemetery said “he receives low pay from the Assembly and this discourages him. However, if a visitor is angry with his service, he shows compassion and encourages that he will take good care of his or her grave for something small”.

A member of the general public who remained *anonymous* says “I understand that the Awudome cemetery is busy with burials but was disappointed by the poor services delivered by the staff. I have a relative buried here and came to search for records to enable me to pursue a legal issue. I was told there were no records on my case as it was over 35years.....in an attempt not to give up I engaged the services of some of the cemetery workers to help me do a ground search and to my surprise became horrified about how poorly the stones were maintained. Many of them were covered with overgrown grass making them nearly impossible to read names on them”. Also, the evaluation of sustainability on sampled cemeteries, revealed that the sustainability performance of the sampled cemeteries was far below average and quite low, implying that, the sampled cemeteries were not sustainable enough within the Metropolis. The sustainability performance was significantly related to the position of the respondents.

Cemeteries workers are deserving of attention as they are exposed to various psychosocial risks: these workers are subject to painful contacts and daily exposed to a working content linked to death experiences and the emotions associated with them. Secondary trauma develops from this continuous contact with others’ suffering; operators working with this type of traumatic content and dynamic could suffer from emotional disorders (Figley, 1995). Therefore, traumatic stress is seen as an occupational risk factor (Bride *et al.*, 2004) and cemetery workers are subject to this risk. The results were in support of a study by Colombo, Emmanuel and Zito (2019) in secondary traumatic stress found a high level of psychophysical symptoms particularly symptoms related to anxiety, sadness, insomnia, and gastric and musculoskeletal disorder. Cemetery

work presents a high physical demand and significant psychosocial stressor to the workers. It was noted by Cotrim *et al.* (2020) that most workers in the cemetery were unfit for their current job. Also, Klaufus (2020) indicated a high level of risks attached to the occupation including the breeding ground of mosquitoes and potential hotbeds of lethal diseases. Grave looting and trafficking of burial lands were noted to be very high in cemeteries which have the potential of impacting on the security of the staff. Aside from the physical and psychosocial impacts the intangible risks and risk aversion connected with spiritual activities cannot be underemphasized.

Table 4. 8: Stakeholders Play Role in Managing and Controlling of Cemetery

Stakeholder's play role in cemetery management	Frequency	Percentage
Yes	32	90
No	3	10
Total	35	100

Source: Field Survey (2020)

4.5 Effect of Cemetery Management Practices on The Sustainability of Cemeteries Within the Accra Metropolitan Area

The third specific objective of the study was to ascertain the effect of cemetery management practices on their sustainability within the Metropolis. The current practice of digging old graves to make way for new spaces will not be sustainable to help protect memories of current and future generation under the current urban sprawl with more people dying. Also, at the same time, the

society has become increasingly diverse, it is time for new burial practices that makes better use of land by re-using the old spaces which have a usage span of over 30 years.

About 80 % of respondents revealed that they would support the recycling of old graves as a means of ensuring sustainable in the management of the cemetery. The inadequacy of land available for burial has led to the closure of some burial grounds such as the “the Mile 11 Cemetery”. This had been closed because it is full and people had encroached on the land as a result of the lack of proper compensation to chiefs for the release of land. Reuse is the only long-term solution not only to the lack of burial space but also to the long-term financial viability of cemeteries. Rugg and Holland (2016) conducted a study on the ethics of grave re-use indicated that grave reuse cannot be ethically evaluated simply by adverting to cognate issues, such as archaeological and medical ethics, since grave re-use comprises a very specific type of disturbance. Whilst there is no general ethical prohibition against disturbing the dead, a more detailed analysis is required for special cases. It is argued that even granted that posthumous harms exist, on a proper understanding of what motivated purchase of perpetuity graves their re-use does not constitute prohibitive posthumous harm. Repugnance towards grave re-use is grounded in solicitous attitudes towards the dead and ontological anxiety about the fate of our own and our loved one’s bodies. The call for the re-use of old graves significantly correlated with gender, the job tenure and the position of the respondents. Many people, including some faith groups, do not wish to consider the option of cremation If the public is to continue to have access to affordable, accessible burial in cemeteries fit for the needs of the bereaved, there appears to be no alternative to

grave reuse. The reuse of a tomb can be dated back to centuries. The reuse of tombs in the iron age has been reported by Dopfer (2015) who studied the reuse of tombs in the necropolis of Bat, Sultanate of Oman. There have been reports on countries planning to reuse ancient tombs for burial. Crassard *et al.* (2010) noted the plans of Yemen to reuse ancient tombs by the later generation while researching on the reuse of tombs and cultural continuity. However, the reuse of ancient tombs has the possibility of destroying archaeological landscapes, thus increase the likelihood causing a loss of monumental tombs and antiquities as reported by Cherstich *et al.* (2018) in a study on the change and reuse in the cemeteries of Cyrene. About 13% of respondents of the study revealed would support green burial as a practice for sustainable use of burial grounds. A growing trend is the concept of natural burial, also known as a green funeral and green burial. The corpse is placed in a biodegradable coffin and interred. Vegetation, often a tree, is planted in the proximity of the grave instead of artefacts. It prevents the use of expensive materials, vaulted concrete graves, chemicals for embalmment of the body and helps reduce burial cost as well as protect and nourish the natural environment. 5% of respondents supported cremation as a method for sustainable use of space. This is because cremation does not require the use of many lands, but it produces atmospheric pollution and is unacceptable for some religious communities. Cremation is however not discussed as it is outside the scope of the study.

Further findings exhibited that only 2% are willing to adopt exhumation as methods for sustainable management of cemeteries. Exhumations are not encouraged, it is rare and may focus on finding criminal facts and locating missing people for forensic findings, “green burials” require more surface area

than current burial practices, so a new paradigm for managing land use is required. Furthermore, to achieve this specific objective, correlational and regression analyses were undertaken by the researcher to ascertain the nature of the relationship existing between the explained and the explanatory variables. The dependent variable in the study is the sustainability (or the sustainable use) of the cemeteries, and the independent variables are made up of the four (4) main components of cemetery management practices: environment (ENV), structure (STR), facilities (FAC), and security (SEC). Also, ascertaining the effect of cemetery management practices on the sustainability of cemeteries within the Accra Metropolitan Area, the correlational analysis revealed that, except for the environment (ENV), which had a positive correlation with sustainability (SUST), the other three (3) components of cemetery management practices had negative correlations with sustainability. Again, as an indicator of cemetery management practices, the structure (STR) had a significant negative correlation with sustainability at the 5% level of significance ($p = -0.041 < 0.05$). The environment (ENV), facilities (FAC), and security (SEC), all had insignificant correlations with sustainability at the 5% significance level.

4.6 Role of Key Stakeholders in The Management and Control of Cemeteries

The results concerning the key role played by stakeholders in the management and control of cemeteries in the Accra Metropolitan Area. The study revealed that 90% of the respondents assured that stakeholders such as the Physical Planning Department of the Accra Metropolitan Assembly and the land Commission have been responsible for the demarcation and acquisition of lands for a cemetery. Also, the Environmental Protection Agency under its

Environmental Assessment Regulation ensures that necessary mitigation measures are put in place for environmental concerns whose undertakings are likely to be affected by Cemeteries. The Metro Public Health Department of the Accra Metropolitan Assembly has also been a key stakeholder and has been involved directly in the management and control of cemeteries both public and royal cemeteries within the Metropolis. The demand for burial space has received much attention in recent concerns. Malik (2017) in a study on the role of stakeholders related to the management of ecological functions of urban green open space in the City of Depok, India, recognized the need for stakeholder involvement in the management of an ecological space in areas such as physical planning. Chaplin (2009) also supported the study with a report on the key role of resilience in managing ecosystem sustainability, indicated the need for paying critical attention to forest resources in a quest for burial space.

Traditional authorities, also play a major role by releasing land to the government for cemetery development and usage. However, 10% of the respondents indicated that “No”. The implication is that the management and control of cemeteries in the Accra Metropolitan Area have key stakeholders especially from government participating in the management affairs of cemeteries. The government has taken the responsibility of financing public cemeteries through the budgetary allocation of funds for the management and control of the public cemeteries in the Accra Metropolitan Area. Further, religious organisations and community leaders did contribute their quota to the management of the cemeteries. Thus, these stakeholders regularly organized people to the various cemeteries to clean the environment to support government

effort. A significant correlation existed between stakeholder participation and the level of education and position of the respondents.



CHAPTER FIVE

SUMMARY CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This shows concisely the relevant conclusion and recommendation for the study.

5.1 Summary

Rapid urbanizing of metropolitan areas and the transformation of social, economic and demographic structures, the communal and public cemeteries located within urban areas have become inadequate to fulfil the needs of the communities. Most urban cemeteries are now an urban problem as they lack the needed space for expansion, management and protection of graves. This situation can be attributed to the haphazard design, development and management of public cemeteries. However, communities are also not willing to provide large tracks of land for public cemeteries in urban. The study, therefore, examined the sustainable ways of using and managing cemeteries in the Accra Metropolitan Area. Questionnaires were administered to cemetery staff and key stakeholders using purposive sampling technique and the data statistically analyzed. The environment, structure and facilities of the cemetery were noted as significant cemetery management practices. The cemeteries surveyed lacked well-designed landscapes and poor security services with the intension that the sacred perception given to cemeteries were enough to ward off grave raiders as well as other intruders. The cemetery management practices correlated with the age and job tenure of the respondents. Low sustainable use of cemetery space was recorded due to poor financial support, irregular land use pattern, poor management performance, low employee morale and customer satisfaction and poor service delivery of the cemetery. Suggestions were thus

made for the reuse of old graves; however, these had the potential of destroying sites that may be of archaeological relevance (such as ancient tombs) and families may hold on to the graves of their loved ones. Calls were therefore made for active stakeholder involvement in the management of the cemetery.

5.2 Conclusion

Based on the results of the study, it can be concluded that there is no doubt that existing cemeteries have made a significant contribution to the development of the Metropolis. This has led to sustainable management in terms of re-using of old graves and earth burial. Thus, the management of the cemeteries impacted positively on sustainability. City Authorities has plans to change land use by re-using old graves to control congestion at the burial sites to ensure sustainable management of cemeteries in the Metropolis. The study showed that the management of the cemetery through its management ensured the reducing of environmental contamination generated by cemeteries could be to use a zoning process coupled with analysis of the social and environmental impact involved in administering cemeteries as planned environments.

The management adopted a vertical burial that proved a viable way of mitigating environmental impacts. This ensures adherence to issues of safety and security. Also, the study revealed that poor management of cemeteries and hence the cemetery environment is overgrown with weeds. Also, there is no access between graves making it difficult for people to walk through and sometimes resulting in injuries. People working in the cemeteries are also exposed to contaminants due to the digging, breaking and covering of graves as a means of using the same space area for burial. Furthermore, there is a plan to improve the architectural nature of cemeteries by re-designing and re-locating cemeteries to

ensure their usage for present and future generation. However, the lack of commitment on the part of government has led to issues such as poor facilities, porous security, low financial profit efficiency, low employee morale among poor customer satisfaction and service delivery on the part of cemetery workers.

The study, therefore, concluded that there is need for proper management systems which calls for sustainable use, planning, design, operation and management of cemeteries within the Metropolis because of its importance in making the Metropolis clean and healthy place to reside.

5.3 Recommendations

The following recommendations were made for a consideration by the government, policymakers, policy implementers and researchers:

- The government should increase the budgetary allocation to help in the management of the various cemeteries in the country.
- A comprehensive national policy framework should be developed concerning cemetery management to guide the activities and management of cemeteries in the country.
- A routine maintenance plan for graves, tombstones, walls, facilities and landscape of the cemeteries.
- Studies should be conducted on green burial and reuse of tombs for sustainable use of cemeteries.

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APPENDIX A
QUESTIONNAIRE

TOPIC: Sustainable Use and Management of Cemeteries in the Accra Metropolitan Area

Introduction: The questionnaire below is aimed at achieving the aforementioned topic, and the successful completion of it will lead to the award of an MSC degree in Environmental Management at the Presbyterian University College, Akropong. The researcher pledges to conceal the anonymity and confidentiality of all persons who give out information as required by this questionnaire.

SECTION A: Bio-graphic Data of Respondents

1) Gender of respondent

- A. Male [] B. Female []

2) Age of respondent

- A. Less than 20 years [] B. 20-29 years [] C. 30-39 years [] D. 40-49yrs [] E. 50 years or more []

3) Educational level of Respondent

- A. SHS/ O/A-Level [] B. Diploma [] C. Degree [] D. Masters/PhD []
E. Professional Qualification [] F. Any Other []

4) What is the name of your organization/cemetery?

5) How long have you been working with this cemetery /organization? (Tenure of work)

- A. less than 5yrs [] B. 6-9 years [] C. 10 years and above []

6) Position held in the organization

- A. Management staff [] B. Supervisor [] C. Non-management staff []

SECTION B: CEMETERY MANAGEMENT PRACTICES

The following items seek to determine the cemetery management practices exhibited by the various stakeholders who are concerned with cemetery management within the Greater Accra Metropolis in the Greater Accra Region of Ghana. Please respond to the following items on the questionnaire by choosing on a scale of **1 to 5**, the following Five-Point scale:

1=Strongly Disagree

2= Disagree

3=Neutral

4=Agree

5= Strongly Agree

No.	Cemetery Management Practices	For each statement choose a number				
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
THE ENVIRONMENT						
1	The environment is overgrown, with tombstones, barely visible	1	2	3	4	5
2	Accessed by unpaved, bumpy road and unkempt surroundings-	1	2	3	4	5
3	Thick undergrowth, covering tombstones and the entire cemetery space	1	2	3	4	5
4	There are strategies in place to effectively manage the cemetery environment and make it sustainable	1	2	3	4	5
THE STRUCTURE						
5	Broken down gate, broken fence, no fence in sections, and small gatehouse	1	2	3	4	5
6	The gates and wall fence are all in poor conditions	1	2	3	4	5
THE FACILITIES						
7	The wall fence are all broken down	1	2	3	4	5
8	There are plans in place to improve upon the overall architectural structure of the cemetery	1	2	3	4	5
THE FACILITIES						
9	No directional signs and no paved paths	1	2	3	4	5

10	No proper internal road network within the cemetery	1	2	3	4	5
11	No sign of electricity and water supply	1	2	3	4	5
12	Descrpit and an unfurnished gatehouse	1	2	3	4	5
13	Overall, the facilities and other social amenities within the cemetery are in poor shape	1	2	3	4	5
		Strongly	Disagree	Neutral	Agree	Strongly
	SECURITY					
14	In the daytime, there are no signs of security seen	1	2	3	4	5
15	There are no security lights in place within the security	1	2	3	4	5
16	Overall, the security architecture within the cemetery is porous	1	2	3	4	5

SECTION C: SUSTAINABILITY OF THE CEMETERIES IN TERMS OF PERFORMANCE

This section of the questionnaire examines the sustainability of the cemeteries in terms of performance within the Accra Metropolitan Area. Please, respond in terms of sustainability performance, using the following Five-Point scale:

- 1=Very Low
- 2=Low
- 3=Moderate
- 4=High
- 5=Very high

N	<u>Sustainability Performance within the</u>	For each statement				
o	<u>Cemeteries in the Accra Metropolis-</u>	choose a number				
		Very low	Low	Moderate	High	Very high

.....
.....

6. Do you encounter any challenges on underground water pollution in relation to a particular cemetery location within the metropolis?

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.....

7. How do you see the management of private cemeteries (Gethsemane) and public cemeteries (Awudome/ Osu)?

.....
.....
.....

8. How do you help the management of public cemeteries within the Accra metropolis?

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.....
.....

9. What recommendations can you give in the general management of public cemeteries within the Accra metropolis?

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.....
.....

10. What are some other effects cemetery operations have communities and the environment at large?

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.....
.....

11. In general, what do you think can be done to sustain both public and private cemeteries?

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.....
.....

APPENDIX B



**A SECTION OF SOME TOMBSTONES AT MAMPROBI SEMPE
ROYAL MAUSOLEUM**

Source: Field Survey (2020)



A SECTION OF THE MANTSE ANKRAH ROYAL MAUSOLEUM

Source: Field Survey (2020)



**A SECTION OF THE MANTSE ANKRAH ROYAL MAUSOLEUM WITH
OVERGROWN WEEDS**

Source: Field Survey (2020)



**A SECTION OF THE ASERE CEMETERY – BUBUASHIE, ACCRA
WITH OVERGROWN WEEDS**

Source: Field Survey (2020)



THE FRONTAGE OF ASERE CEMETERY – BUBUASHIE, ACCRA

Source: Field Survey (2020)



A CLEARED SECTION OF THE ASERE CEMETERY

Source: Field Survey (2020)



THE FRONTAGE OF NIKOI OLAI STOOL FAMILY'S ROYAL MAUSOLEUM

Source: Field Survey (2020)



A SECTION OF SOME TOMBSTONES OF NIKOI OLAI STOOL FAMILY'S ROYAL MAUSOLEUM

Source: Field Survey (2020)



FRONT VIEW OF THE AWUDOME CEMETERY

Source: Field Survey (2020)



OFFICE OF THE SEXTON AWUDOME CEMETERY

Source: Field Survey (2020)



SOME AMBULANCES AND MOURNERS AT THE AWUDOME CEMETERY

Source: Field Survey (2020)



OFFICE OF SEXTON AWUDOME CEMETERY

Source: Field Survey (2020)



A SECTION OF SOME WORKERS AT AWUDOME CEMETERY

Source: Field Survey (2020)



AN UNPAVED SECTION AT THE AWUDOME CEMETERY

Source: Field Survey (2020)



A SECTION OF SOME TOMBSTONES AT AWUDOME CEMETERY

Source: Field Survey (2020)

