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Burying as an Interment Method and Its Impact in Kenyan Urban Areas:

A Case Study of Lang'ata Cemetery in Nairobi

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Abstract

Governments are mandated to allocate land for public purposes regardless of the prevailing economic stimulus ,and public cemeteries form one such use. Whether it is to be used or not, public health legislation, and in Kenya for instance, the Public Health Act Chapter 242 of the Laws of Kenya, dictates that any major urban area must have a cemetery. Unlike in the past when it was felt that public cemeteries were meant for the poorest of the poor and the landless, the scenario has now changed. Wealthy and influential personalities are also finding their resting place in these cemeteries. This change in practice coupled with the increase in the population as well as the high mortality rate has led to unprecedented competition for burial land in the urban areas. It is against this background that the authors sought to establish the impact of burying as an interment method. The paper set to establish the existence of other methods of interment, their impact, their level of acceptability as well as the extent of use. In order to obtain data to determine the impact of burying as an interment method, questionnaires, interviews and observations were the tools used. Data was obtained from randomly selected residents of estates in the Lang'ata area, professionals, city residents, as well as the management of the cemetery. Key findings reveal that burying is the most expensive mode of interment in terms of land requirement and it is indeed our duty to enhance the best use for our urban land. Our failure to, has led to several economic, environmental and social negative implications. It is time for the government to embark on a campaign to sensitize and encourage people on the need to adopt alternatives to burial, and in particular cremation.

Keywords: Burying, Impact, Interment, Urban areas.

INTRODUCTION

Nature did not intend that any living organism should live forever, as our current perception of sustainability would imply. This is why all living things must at one time naturally die. The 21st Century has seen a global increase in mortality rates. In the urban areas, the demographic increase in population can be used to explain the high number of deaths (United Nations [UN], 2019). The urban population in Kenya increased from 10.3% in 1970 to 27.5% in 2019, growing at an average annual rate of 2.03% (UN, 2018; World Bank, 2018). It is estimated that the proportion of people living in urban areas in the world rose from 30% in the 1950s to 49% in 2005 and is projected to reach 61% by 2030; with Africa having the highest annual urban population growth (UN, 2006). With the increasing population, the cities can no longer effectively accommodate the rising land demand. Our urban land is dwindling; it is characterized by shortage of space, congestion, pollution, and so many other factors that affect human lives negatively (Obudho and Juma, 2002).

Urbanization has been coupled with a change in lifestyle and trends. In the past, if one died in an urban area, their body was transported to the rural home for burial. Inability of the deceased's family to provide transportation of the corpse for burial in the rural home was seen as a sign of 'disregard' for the dead and this would eventually have brought shame to the family. Individuals also had their wishes indicating where one wished to be buried. Use of public cemeteries was not common as they were considered to be a place for the poor. The 21st Century has seen things

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change. Public cemeteries have become one of the competitive urban land uses. Unlike in the past, the rich are now among those being buried in the public cemeteries; some have even gone to an extent of securing burial sites for themselves and their families. The burial space is dwindling in existing cemeteries and local authorities are now looking for new sites to accommodate this explosively demanding use. This has come at a time when increased urban population continues to demand more land. As a result, this has triggered competition between the dead and the living with each demanding more and more space.

THEORY

Urban Land Use

Land use patterns in the urban areas are usually more complex and dynamic than in the rural setup. As urbanization is largely an economic phenomenon, it follows that the internal organization of urban areas reflects economic forces which facilitate the functioning of the economic sub-systems involved. Land is divided between land developed for use by persons responding to the profit motive and land which is used for non-profit purposes. As a general rule, land owners tend to use their land resources for those purposes which promise them the highest return. In this respect, they tend to allocate their land resources in accordance with this concept, thus the highest bidder will secure the site.

Land supply is naturally inelastic. The UN Habitat (2007) noted that with the fixed global land mass and the ever-increasing population, the world is experiencing difficulties in effectively accommodating the increasing global population. On the other hand, the United Nations (2011), estimated the global population would reach 8.1 billion by the year 2025 and to further increase to 9.6 billion in 2050 and 10.9 billion by the year 2100.

Kenya as a country has also been experiencing a constant population increase. The country's population grew from 5.4 million in 1948 to 41 million in the year 2011 (United Nations, 2011). The population is currently estimated at 47,564,296 following the population and housing census conducted in 2019 (Kenya National Bureau of Statistics [KNBS], 2019). The country- with an area of approximately 582,309 sq.km and an annual population growth rate of 2.28% (UN, 2019)- has insufficient land to adequately cater for the ever-increasing population. Most urban areas are now congested with about a quarter of the country's population living in these areas. It is projected that close to half of Kenyans will be urban residents by the year 2050.

The city of Nairobi, which has an area of approximately 684 sq.km, had a population of 108,900 in 1944 which increased to 2,143,254 by 1999 (KNBS, 2008) and 3,100,000 by 2009 (KNBS, 2009). The population currently stands at 4,397,073, with a projection of 5 million people in 2020 and 6 million people in the year 2025 (KNBS, 2019; UN Habitat, 2007).

With an estimated annual population growth rate of 4.7 to 4.8%, the city of Nairobi's population is indeed growing at a very high rate compared to an average of 3.4% annually for cities in the developing countries and 1.8% for the world urban growth rate (UN Habitat, 2007). This will pose an even greater threat on the city's ability to sustain the population effectively by provision of adequate land. The population increase within the urban centres has forced the city managers to make stringent decisions on urban land use to accommodate the various competing uses. They include: commercial, residential, industrial, recreational, sports, religious, agricultural, transportation, forest, crop and pasture land uses. With all these competing demands, land has to still be set aside for cemeteries.

Land Use Capacity

The land use capacity holds that each unit of land is used for that purpose for which it commands the highest monetary (or social) net return. Land use capacity is usually expressed in monetary terms, but sometimes it can be measured in terms of the individual or social satisfaction associated with the particular land use (Appraisal Institute, 2018).

The highest and best use of a property refers to the reasonably probable and legal use of vacant land, or an improved property, that is physically possible, appropriately supported, and financially feasible and that results in the highest value (International Valuation Standards, 2007). The highest and best use criteria may be summarized as: legally, physically, financially and maximally feasible. A potential use must, however, comply with both the first two requirements prior to moving into the financially feasible or maximally productive analysis. That is, a use that is not legally permissible by zoning or other restrictions, or that is not physically possible due to site or building limitations, would not be considered for financial feasibility.

Land resources are at the highest and best use when used in a manner that provides an optimum return to the land users and the society. The returns may be measured in monetary terms, intangible social values, or both. Also, it is considered at its highest and best use when it is used for that purpose or that combination of purposes for which it has the highest comparative advantage relative to other uses. This concept calls for consideration of both the use-capacity of the land and the relative demand for the various uses to which it might be put into.

Urban Land Use as Public Cemetries

According to Douglas (2013) and Woodthorpe (2011), public cemeteries are among the 'dormant' uses which do not promote material gain or profit, but aim at promoting public health, safety, leisure and other services to the residents. These uses include; recreational areas, open spaces, public service uses - for instance, cemeteries, public toilets, forests and so on. They are a public service or for the public good. They can never be allocated by the economic forces of demand and supply because they are not profit oriented. The allocation of land for these uses is left upon the governing authority to decide where, when and how to allocate the land.

A cemetery is defined as a place where dead bodies and cremated remains are buried (Collins, 2008). The term cemetery is derived from the Greek word: *koimeterion* meaning a sleeping place and implies that the land is specifically designated as a burying ground (The Funeral Source, 2020).

In Europe during the 17th Century and part of 18th Century, graveyards were commonly used. However, in the late 18th Century and throughout the 19th Century, burial of the dead in graveyards was discontinued in urban areas and was replaced by cemeteries. Among the reasons for this was:

- A very sharp rise in the size of the population during the early stages of the industrial revolution.

- Continued outbreaks of highly infectious diseases in towns and cities due to lack of public hygiene (The Funeral Source, 2020).

As a result, city authorities, national governments and religious bodies all changed their regulations on burials. In many European states, burial in graveyards was outlawed altogether. Completely new places of burial were established away from heavily populated areas and outside old towns and city centres. Many new cemeteries became municipally-owned, and thus independent from churches, however, they were still segregated by the faith of those buried there. Cemeteries, in their modern form rather than graveyards, became the principal place of burial in urban areas.

In Kenya, the establishment of a cemetery is governed by the Public Health Act Chapter 242 of the Laws of Kenya (ROK, 2012). The Act mandates the Minister of Health to exercise power in the manner of establishing, maintaining and, closing of cemeteries if deemed necessary. Section 144 of the Act makes provision for the Minister to select, appoint and notify in the Gazette sufficient and proper sites to be used as cemeteries. The 'ownership' of a burial site does not involve any normal title to the land but only a burial right and the right to erect and maintain monuments (within the terms of the original grant).

Many countries are facing a shortage of burial space particularly in the high-density urban areas (McManus, 2015). These countries include; United States of America (New York), United Kingdom, South Africa (Cape Town) and China

(Beijing). Nairobi is no exception and according to McConnell (2010), Lang'ata cemetery- which is the major cemetery in the city- is running out of space. McConnell (2010), argued that although it was theoretically possible to create new cemeteries in Nairobi, it was unlikely that they would be created due to the scarcity and high cost of undeveloped land.

Burying as an Interment Method

Burying has been defined as the act of placing a corpse in the grave and covering it with earth (Mark, 2009). The act of burying is estimated to have begun around 200,000 years ago during the Paleolithic period (Mark, 2009). Mounds of earth, temples and underground caverns were used to store the dead bodies. Intentional burial, particularly with personal goods, was one of the earliest detectable form of religious practice since it signified a concern for the dead that transcends daily life. According to the Jewish tradition, it was required that the deceased be buried in the ground. This reflects the Biblical notion:

'*For dust you are and to dust shall you return*' (Genesis 3:19, New International Version).

Leaving the dead unburied was considered a horrifying act of indignity. Other reasons why burial was common are:

-Respect for the physical remains was considered necessary. If left lying on top of the ground, scavengers may have eaten the corpse which was considered highly disrespectful to the deceased in many cultures.

-After death a corpse would start to decay and emit unpleasant odour due to bacterial decomposition.

-Many cultures believed in life after death thus burial was often believed to be a necessary step for an individual to enter the after life.

-Many religions had prescribed 'correct' ways to live which include customs relating to disposal of the dead (The Funeral Source, 2020; Mark, 2009).

Arguments for and against burying

Pros

- One of the main advantages of burial is that from a religious perspective, particularly with Muslims and Christians, it will be the choice for most family members. If there are varying religions in the inner circle, a burial is usually an acceptable option for a wide range of religions or beliefs among family members.

- Many families choose to purchase family plots or cemetery plots or spaces together. This tradition can give comfort knowing loved ones are at peace close to each other. This type of purchase can be done in advance.

- A burial in a cemetery offers family and survivors a permanent place to grieve and visit their loved ones' rest place. The headstone can display special message(s) to pay tribute to the deceased. Knowing there is a place to visit can be comforting.

- In the rare occurrence that a body needs to be exhumed, a burial allows this.

Cons

- Burial is a known source of certain environmental contaminants, the coffins themselves are a major contaminant as well as the embalming chemicals.

- Traditional burial takes up a great deal of space. While a single burial may not take much space (approximately 6ft by 3ft), this, combined with other burials can over time cause serious space concerns.

- A burial is not necessarily a low-cost option. Budgetary items to be considered include: services of a funeral director, coffin or casket, flowers, transportation, media announcements, cemetery costs, catering and other fees.

- Planning a burial is an emotional time. Families normally overspend due to emotion or feel compelled to purchase elaborate caskets, headstones etc. to honor their loved ones. Going into debt is not uncommon.

- An important issue to consider is the location of the loved one's family and friends. If family members move away from the cemetery where the loved one is buried it may be difficult to visit the gravesite.

Alternative Methods of Disposal

Human bodies are not always buried. Several alternatives to burial are always available which are also intended to maintain respect for the dead. They include:

a) Cremation

Williams (2015) has defined cremation as the process of reducing human remains to basic elements in the form of bone fragments through flame, heat, and vaporization. According to the Cremation Association of North America (2018), cremation dates to at least 20,000 years ago in the archaeological records with the Mungo Lady; the remains of a partly cremated body found at Mungo Lake, Australia. In the 1890s, cremation was legalized in most European countries with the enactment of the Cremation Act of 1896. Christians who previously objected to cremation came to accept it, with the rationale being while the Christian tradition clearly favours burial, the Bible nowhere explicitly condemns cremation. The adoption of the Cremation Act by 1900 in most European countries is seen as the origin of cremation as a modern method of interment (William, 2015).

Cremation occurs in a crematory consisting of one or more cremator furnaces. A crematorium may be a traditional furnace that uses firewood or a machine furnace that uses propane or natural gas. Many of them today also use electricity (Chesler, 2019).

After cremation, the cremated remains once pulverized can be scattered without any foreign matter. The entire process takes about two hours after which the cremains can be disposed. Some religions prefer burying the cremains or disposing them in the way indicated by the deceased before their demise. In Kenya it is only the Hindu and Sikh communities that largely practice cremation, but lately other religions like Christianity- and mostly the members of the Kikuyu community- have adopted cremation as an alternative for disposal (Gathara, 2019).

Pros

- Apart from religious reasons, some people prefer cremation for personal reasons. For some it is because they are not attracted to traditional burial. The thought of a long, slow decomposition process is unappealing to some and they prefer cremation because it disposes of the body immediately.

- Cremation simplifies the funeral process. The traditional burial can have unnecessary complications and cremation makes the funeral process as simple as possible.

- The cost factor also tends to make cremation attractive. Generally, cremation is cheaper than traditional burial services especially if direct cremation is chosen in which the body is cremated as soon as it is legally possible.

- Cremation is preferable due to environmental reasons. Cremation allows for very economical use of cemetery space.

- Cremation can still have a funeral service and a burial. Yet the space of land used is very small.

- Families have more time to decide what to do with the ashes after the body has been cremated. Ideas include scattering ashes, interment etc.

- It is quicker. Making burial decisions can be a difficult and time-consuming ordeal, especially when doing so during the time of loss (Cremation Institute, 2020).

Cons

- There is a growing body of research that indicates cremation- based on the method used- has a significant impact on the environment. The major emissions are nitrogen oxides, carbon monoxide, sulfur dioxide, particulate matter, mercury, hydrofluoric acid (HF), hydrochloric acid (HCl) and other heavy metals. However, these emissions from crematoria contribute 0.2% of the global emission of dioxins and furans (UNEP & WHO Report, 2014).

- Also, if the family does decide to bury cremated remains in a cemetery, they will still need to purchase grave space and pay for the installation of a headstone or grave marker. However, costs are

far much lower when burying cremains than they are for burying a casketed body. The land area is also far much smaller.

- The method is still not acceptable to certain religions/cultures.

b) Resomation

The term resomation was chosen using 'resoma' which is a Greek/Latin derivation for 'rebirth of the human body' (LBBC Group, 2020). This is dissolving the body back to the basic organic components and its rapid and beneficial return to our eco-system to be re-used as nature had designed. Resomation is also referred to as water cremation, aquamation or biocremation.

Resomation is an alkaline hydrolysis process for the disposal of human remains which is claimed to be much more ecologically favourable than cremation. The body is placed in a resomator for approximately three hours. The machine is then filled with a mixture of water and potassium hydroxide and heated to a high temperature and at a high pressure to prevent boiling (LBBC Group, 2020). The white bone ash is then returned to the next of kin of the deceased for disposal while the liquid is recycled back to the ecosystem.

Pros

- Resomation uses less fuel than cremation. However, the manufacturing process for the chemicals involved requires significant energy inputs.

- The resomation process is probably less environmentally damaging than cremation. The substitution of water cremation for flame cremation as part of a funeral will reduce that funeral's emissions of greenhouse gases by approximately 35% (LBBC Group, 2020).

- The introduction of water cremation would provide the public with more choices in deciding how their body is taken care of at the end of life.

Cons

- The pH of the effluent is usually too high to be discharged directly into the waste system since it will kill the working bacteria at the waste processing plant, so it must first be treated to lower the pH before it can enter the waste processing stream.

- Despite the apparent promises of alkaline hydrolysis as a better alternative to flame cremation and entombment, it remains largely unpopular because of religious and cultural beliefs.

- Some people find the liquid solution byproduct repulsive.

- Other religious organizations and civic groups remain adamant about the process. They argue that it does not sufficiently show respect for the sacredness of the human body (LBBC Group, 2020).

c) Promession

Promession is derived from the Italian word *promessa* meaning promise. The promise being the good environmental management of the Earth (Promessa, 2020). Promession is an ecologically conscious method for disposing of human remains by freeze drying. It was invented and patented in 1999 by a Swedish biologist Susanne Wiigh-Masak. The method involves the use of submerging the body in liquid nitrogen, leaving a powder after the drying process (Promessa, 2020).

Pros

- Compared to burial or cremation- the two most common forms of body disposal- promession avoids the release of pollutants into the atmosphere.

- The volume of remains left by this procedure is about ten to twenty times less than that left by a cremation.

- In addition, unlike traditional ground burial, the promession process would reduce the demand on land-space.

- Moreover, the remains resulting from promession are completely organic and, including the biodegradable container, would not introduce chemicals, metals, concrete or other types of potentially harmful substances into the ground, resulting in a significantly smaller carbon footprint than that associated with traditional earth burial.

Cons

- Presently, the promession process remains unavailable as a viable form of final body disposition. Despite its potential eco-friendly benefits, it still remains in a theoretical/testing phase and is unavailable to consumers (Raymond, 2020).

RESEARCH METHODS

The City of Nairobi has several public cemeteries all established in accordance with the Public Health Act Chapter 242 of the Laws of Kenya (ROK, 2012a). They are: Lang'ata Cemetery, Muslim Cemetery, Shia Imami Ismaili Cemetery, Bora Cemetery, Shia Ithna Ashari Cemetery, Parsee Burial Grounds, and several other out of use cemeteries like the Nyayo Cemetery and City Park Cemetery. Lang'ata cemetery is the major cemetery covering an area of approximately 117 acres. The cemetery is located on the outskirts of Nairobi about 15km west of the Central Business District along Lang'ata Road.

In order to obtain data to determine the impact of burying as an interment method, questionnaires, interviews and observations were the research tools used to collect data from:

- Randomly selected residents of the following estates in the Lang'ata area: Ngei Estate, Onyonka Estate, Otiende Estate, Uhuru Gardens, Masai Estate and Nairobi Dam. A total of 300 residents were interviewed.

- Randomly selected professionals namely: Planners, Valuers, Property Managers, Architects, Engineers, Environmental Impact Assessors, Religious Leaders, Sociologists and Psychologists. A total of 90 professionals were interviewed.

- A random sample of the city's residents using the shopping mall-intercept survey. This involved 15 shopping malls and a total of 750 residents were interviewed.

- The management of Lang'ata cemetery based at the cemetery, Nairobi City Mortuary and the main Nairobi County Offices.

RESULTS AND DISCUSSION

Lang'ata cemetery lies along Lang'ata Road opposite the world-famous Nairobi National Park. It occupies some prime 117 acres just 15km from the city's CBD with land prices for the front row commercial plots going for a conservative Kshs. 400 million per acre. The cemetery is on the edge of various middle-income residential estates. Land for burial is approximately 97.3% of all land in the cemetery while cremation takes up only 2.7% of the land.

Economic Impact

The urban property market requires of each site its highest and best use, and this is largely determined by competition between potential uses of the land. Space and location are economic commodities subject to supply and demand forces. Local authorities have the mandate to charge an annual fee in the form of land rates for any land within their jurisdiction. The amount charged for any land will depend on the prevailing market value of the land at the time. Major centres depend on such payment of rates for the provision of services. Public cemeteries are exonerated from the payment of rates. In Kenya for instance, the Valuation for Rating Act Chapter 266 of the Laws of Kenya Section 27 of the Act states that:

No Valuation for the purposes of any rate shall be made in respect of any land which is used or is bona fide intended to be used within a reasonable time, directly and exclusively for cemeteries, crematoria and burial or burning grounds (ROK, 2012b).

With a conservative figure of Kshs.250,000,000 on average per acre, the local government would be in a position to collect at least Kshs.1,170,000,000 per annum in rates. This is unfortunately to be compared to the figure of Kshs.30,500 for a permanent grave and this amount is for 99 years. With an acre holding approximately 1,500 sites assuming full coverage and (making a provision for roads/paths) an acre raises Kshs.47,750,000 for the 99 years in comparison to Kshs.990,000,000 per acre in rates for the same period. The figure of Kshs.47,750,000 will even be lower when the operating costs of the cemetery are taken into consideration.

A cemetery is also a one-type use. That is, no other activity can take place apart from the specific use it is set aside to accommodate. Other land uses, for example, residential land use can still accommodate other types of uses like shops, schools, farming, etc.

With the space running out in the cemetery, more land is required. The permanent graves that fetch the highest amount go for Kshs.30,500 for an adult while cremation is at Kshs.13,000, while children and infants are given lower rates. Yet the space required for cremation is just for setting up the necessary equipment, and where the cremains are to be buried, the land area required is negligible. According to the Centre for Natural Burial in Sweden (2007), the adoption of promession is expected to save 46% of its urban land which was previously set aside for burial within the next five years, while within the European countries resomation has reduced annual land demand for burial sites by 54.62% within a period of 10 years.

b) Environmental Impact

From an environmental point of view, it is important to not only consider the materials used to make the coffins, but also the energy used and pollution in the manufacturing process. The manufacturing of coffins involves a massive destruction of trees which play a very great role in phyto-eradication processes within the urban areas. Most communities in Kenya prefer wooden caskets. This means that for every burial carried out, at least one tree has to be cut down. With the ongoing global campaign to sensitize people on the need to conserve and preserve our environment, there is a need to change our practices or else the environment will demand change from us. It is our time to change to a more appropriate mode of interment which impacts less on the environment. Future generations will not only question those who destroyed the environment, but also those who failed to protect it.

Also, many cemeteries, including Lang'ata Cemetery, are sited close to settlements. During disintegration of the bodies, there is seepage of decay products into percolating water. This seepage contains bacteria, viruses plus organic and inorganic products. If the cemetery is located in a porous type of soil, such as sand or gravel-like in the case of Lang'ata Cemetery- movement of seepage can be rapid and mix easily with the groundwater beneath the site. This could conceivably be a cause of local epidemics from waterborne diseases where the groundwater is used as a water source (WHO Report, 1998). Chemicals used in embalming corpses and for finishing the woodwork for caskets are highly toxic and do not just disappear. They gradually work their way into the soil and underground waterways. People tend to feel that once you bury someone it is the end and there is no effect on the environment anymore. Unfortunately, this is not true.

In addition, the soil structure is greatly damaged due to digging out of soils during burying and this does not only have effects on the general appearance of the landscape, but it eventually affects the soil micro-organisms by destroying their habitat.

c) Social Impact

Some people suffer from coimetrophobia. This is the persistent and abnormal fear of cemeteries (Collins, 2008). Thus, very few people would be willing to live close to cemeteries if they had a choice not to. Because of the stigma associated with cemeteries, homes near a cemetery might not sell for as much as homes in other locations. While one may be able to pay less for a house next to a cemetery, it also translates to lower resale values. Cemeteries, Lang'ata included, are deserted places and encourage vandalism and criminal activities, particularly in the night. Also, at times there could be several burials taking place with resultant heavy traffic and noise. All this impacts negatively on the value of adjacent lands.

The progressive increase in the demand for burial sites in the cemetery was unforeseen during the early years of zoning. The cemetery does not have adequate space and the management cannot turn away those wishing to bury their dead. This has had various implications on the use of the cemetery which include:

- Burials taking place on the periphery of

the cemetery.

- Lack of passage ways within the cemetery.

- Recycled graves; sites are re-dug and used as fresh burial grounds. Most communities consider it a taboo to have their dead kin share a grave site with another corpse.

Due to the shortage of space, the management is encouraging cremation. The county government has undertaken the refurbishment of its cremating facility at Kariokor to encourage more people to use the method as an option as authorities address the land issue. Other intervention strategies include relocation of cemeteries to the outskirts of Nairobi where the cost of land is lower and there is space for expansion.

Extent of use and awareness levels of the alternative methods

An analysis into the awareness and extent of use of the interment methods indicated that burial is the most practiced mode of interment within Nairobi; 79% of the respondents indicating that they have participated in a burial at one point in time, 32% in a cremation, while none had participated in resomation. Lack of infrastructure, legislation and awareness of resomation could be the reason it is not known or used in the country.

Culture and religion play a major role in determining the mode of interment to be adopted in any community or region. The Muslims for example have burial as their only accepted mode of interment. For Christians a strong division on the acceptable mode of interment exists with 56% of those interviewed preferring burial, 22% cremation, 13% were comfortable with either of the two while 9% were undecided.

An interview with a Christian religious leader indicated that the church has no obligation in determining how one should be interred and this is mainly left to the family to decide. It was emphasized that the Church has followed the early Christian tradition by adopting burial as the interment method. Further, it was indicated that there is no difference between burying and cremation, only that one provides a faster form of decomposition than the other. The Christian religious leader concluded by stating that God will raise the dead at resurrection and cremation, or any other method, is not an obstacle for Him.

CONCLUSION

Burying remains the preferred interment method, causing a high demand for space in the public cemeteries in Nairobi. Grave reservation and use of permanent graves have also greatly reduced the size of available burial space.

Lang'ata cemetery occupies some prime 117 acres just 15km from the city's CBD. It is unfortunate that so much land is reserved as a burial site while many people still remain landless and unhoused. Our traditions, customs and beliefs are holding us back. Rigid adherence to customs often leads to inefficiency in land use and loss of potential income for developers, construction industry professionals, contractors and other users of landed resources. It is explicit that burying is the most expensive mode of interment in terms of land requirement as compared to the other available methods. Our failure to enhance the best use for our urban land has led to several economic, environmental and social concerns.

RECOMMENDATIONS

With over 7 billion people in the world and this number increasing fast, cremation has the potential to ease the pressure of burial space which is in short supply in many countries. Recycled sites and the encouragement of the adoption of cremation are some of the measures being adopted to solve the problem. Cremation has been put forward as one of the cheapest methods of interment in terms of cost and land requirement. If widely adopted, it is expected to reduce the demand for burial space by approximately 70%. It is also economical, fast and hygienic.

The government should to embark on a campaign to sensitize and encourage people on the need to adopt alternatives to burial. A ban should also be placed on grave reservation as well as permanent graves. Urban land is scarce and getting more

expensive every day. It is indeed our duty to enhance the best use for our urban land.

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