

**CONTRIBUTION OF THE CATHOLIC CHURCH IN ADDRESSING
ENVIRONMENTAL CRISIS IN CHUKA IGAMBANG'OMBE SUB-COUNTY,
KENYA**

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Requirements for the Award of the Degree of Masters of Arts in Religious
Studies of Chuka University**

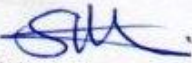
**CHUKA UNIVERSITY
OCTOBER, 2024**

DECLARATION AND RECOMMENDATIONS

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Declaration


This thesis is my original work and it has not been submitted for award of diploma or conferment of a degree in any other university.

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DEDICATION

This thesis is dedicated to my husband, Nicholus Mutegi and my sons, Dylan Murimi and Rex Mwenda for their unwavering support and steadfastness during the long hours of research and consultations with my supervisors. Their commitment and encouragement were instrumental in ensuring my success in this research work.

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ABSTRACT

Environmental conservation is integral in combating global climate change in the twenty first century. The Catholic Church in Kenya has integrated environmental conservation into its mission and aligned it with its apostolic mandate to care for the spiritual and social welfare of humanity. In Chuka Igambang'ombe Sub-County, the Church participates in tree planting, river rehabilitation, soil conservation, and environmental campaigns during the World Environmental Day. However, despite these efforts, environmental challenges persist, including; deforestation, pollution, inadequate clean water sources, drought, and blocked drainage systems. This study aimed at evaluating the Contribution of the Catholic Church in addressing the environmental crisis in Chuka Igambang'ombe Sub-County. The objectives were to identify causes of environmental degradation in Chuka Igambang'ombe Sub-County, examine the Church's role in addressing environmental crisis in Chuka Igambang'ombe Sub-County, and assess Biblical and theological justifications of the Church involvement in environmental conservation. The study was guided by Liberative Solidarity theory which states that all creation needs to be liberated from oppression. A descriptive survey research design using qualitative and quantitative method was utilized. The study was carried in Chuka Igambang'ombe in Tharaka Nithi County which comprised of 10 parishes. A population of 15574 Church members comprising of 20 priests, 20 Development officials, 3663 youths, 4285 CMA ,7321 CWA was targeted by the survey. A sample of 10 priests, 10 Development committee members, 86 youths, 175 CWA and 98 CMA members was obtained for the study making a total of up to 389 members of the targeted population. Data was collected using questionnaires and interviews. Findings revealed significant factors contributing to environmental degradation, such as; deforestation, pollution, economic growth, burning of fossils, and population growth. The Church's approach is multifaceted, involving practical solutions, educational initiatives with theological foundations. Priests actively engaged in tree planting, construction of terraces, protection of water catchment areas, and educational seminars, showcasing a holistic commitment to environmental stewardship. Challenges, including cutting down trees, capital constraints, and scarcity of tree seedlings, were acknowledged. The study proposed several recommendations to enhance environmental conservation within the Catholic Church in Chuka Igambang'ombe Sub-County. These include, community-specific conservation strategies, enhanced communication with priests, strengthened educational programs, consideration of socio-economic dimensions, collaboration with experts, and the implementation of a continuous monitoring and evaluation system. Furthermore, the study suggested avenues for further exploration, such as in-depth theological studies on environmental stewardship, investigating the long-term impact of environmental conservation programs initiated by religious institutions, cross-cultural comparative studies, and exploring the potential policy implications of religious institutions' involvement in environmental conservation. These endeavors aimed to deepen understanding of environmental stewardship within religious communities and contribute to the development of effective and enduring conservation strategies.

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ABBREVIATIONS AND ACRONYMS

CBOs	:	Community-Based Organizations
CMA	:	Catholic Men Association
CPC	:	Catholic Parish Council
CWA	:	Catholic Women Association
DC	:	Development Committees
FBOs	:	Faith-Based Organizations
GoK	:	Government of Kenya
IPCC	:	Intergovernmental Panel on Climate Change
KEMU	:	Kenya Methodist University
NACOSTI	:	National Commission for Science, Technology and Innovation
NEMA	:	National Environmental Management Authority
PC	:	Parish Council
SACBC	:	Southern African Catholic Bishops' Conference
SPSS	:	Statistical Package for the Social Sciences
UK	:	United Kingdom
UN	:	United Nations
UNEP	:	United Nations Environmental Programme
USA	:	United States of America
USCCB	:	United States Conference of Catholic Bishops
WCC	:	World Council of Churches
YA	:	Youths Association

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In light of the rising frequency of tropical storms, shifting patterns of precipitation resulting in both extreme droughts and torrential floods, the phenomenon of environmental conservation and the impact of climate change have gained crucial importance. Small islands are particularly vulnerable to the effects of global warming, which are mostly caused by the emissions of wealthy people and societies, whose excessive consumption and energy-intensive lifestyles account for the "greenhouse effect." Scientists concur that the environment and human life are suffering greatly from climate change and will continue to do so. The nations of Africa, the Island states, and South America will be hardest hit. Injustice takes on new shapes due to climate change. According to Kobia (2016), mitigating climate change has turned into an ethical issue. Creation is indeed in agony, and the failure of the wealthiest people on earth to act significantly and radically to aid in the restoration of the environment is a source of discouragement and even despair to many.

From a global standpoint, environmental degradation presents an urgent and far-reaching challenge. The effects of environmental deterioration transcend national boundaries and impact ecosystems and human well-being on a worldwide scale. International organizations such as the United Nations (UN) and the World Health Organization (WHO) are at the forefront of addressing the complex interplay between environmental issues and public health, emphasizing the need for sustainable practices to mitigate the detrimental effects of environmental degradation (UNEP, 2020). At the global level, there is a growing recognition of the climate crisis as a pressing issue. The current President of Kenya, Dr. William Ruto, proposed that this crisis should be viewed as a catastrophe, emphasizing the need for increased financial commitment to address it. Speaking at the UN General Assembly in New York, he questioned when the world would shift its focus from recovering from COVID-19 and other pandemics to tackling the climate crisis. This highlights the urgency of the situation on a global scale (Smith, 2022).

Prayer is viewed by the Renew Our World Campaign as a potent instrument for kicking off and maintaining this global initiative. The long-term goal of this campaign

is to inspire and engage churches and the global community to combat injustice and poverty, beginning with climate change. Launched in the UK, USA, Australia, Zambia, Peru, Nigeria, and other countries, Renew Our World calls on the government to commit to investing in clean energy and sustainable agriculture, as well as upholding the commitments made in the Paris Climate Agreement (Anglican Alliance, 2017).

In his 1990 New Year's speech, Pope John Paul II emphasized the importance of acknowledging nature as God's creation and treating it with the decency it deserves. He pointed out that environmental devastation happens as a result of people's behavior that disregards the God given order and balance of nature. He talked about how science and technology were being applied indiscriminately, which, if unchecked, led to pollution of shared resources and disregard for life and the integrity of creation. He called for an internationally coordinated strategy and management of the earth's environmental resources, citing greed and selfishness as a key contributing factor to the environmental catastrophe at both the human and corporate levels (Clifford, 1996). There is a special law and responsibility for human towards the rest of creation as God's stewards. In addition, stewardship aligns humans with the natural world by putting them in a position of authority over creation and human affairs before God. The idea of stewardship acknowledges God's omnipotence over the entire planet. It is our duty as humans to preserve creation and leave it intact for future generations (Gecaga, 1999).

Blake (1996) asserts that environmental justice is the natural extension of the social teachings of the Catholic Church on peace and justice. The Church holds a person-centered perspective, believing that because the world supports human existence, it is significant. The purpose of human activity is to ensure that resources are available for both the current and future generations. Concerns about the environment, justice, and peace all point to a holistic viewpoint because everything that humans do and everything that exists is interconnected.

The World Council of Churches (WCC) has been developing the idea of a sustainable community since the 1970s. At the UN climate change summits, the WCC has always been present. Ever since the United Nations (UN) framework convention on climate change was conceived in 1992, the World Bank has actively supported the

development of the climate justice movement. Millions of people worldwide have benefited from this, including thousands of congregations that campaigned for just climate action in 2009. Every year on the day of creation, the congregation joins together in prayer (WCC, 2019).

When Pope Francis met Ecuador's president on April 2013, he addressed care for creation. He also addressed Catholics concerning change on climate on January 2015 (Francis, 2013). Christ's body is the Church. It must be aligned in this regard with other international organizations that advocate for environmental preservation. These are the organizations that vehemently campaign for protection of mother earth. Although some claim that in so doing the Church is becoming worldly, cooperating with such bodies creates a broad network to fulfill the co-mandate of stewardship.

The multinational firms that were responsible for the toxic waste dumping in the communities of Koko and Ikom in Nigeria have not received enough attention from the Church. The failure of the two Christian communities can be explained by the fact that they were not in a better position due to the requirement for an expert to analyze and provide the impacts of such disposals. Gas leaks and oil spills are two other issues that the Church has neglected to solve despite their negative consequences. In this two, the Church has held a passive stance despite the negative effects they have on the environment and the lives of the Church members (Agbiji, 2012). However, it can be argued that the Church is ill-equipped to address every issue related to environmental deterioration, with the justification that specialists and environmental activists should handle these matters. However, such excuses may not be sustained in the light of the Church claims to morality and its claims to be both an agent of the change and community-based organizations (Agbiji, 2012). As God's stewards, Okopido (2010) challenged religious leaders and the Christian community to confront the environmental issue and its detrimental effects on Nigerians' quality of life.

African nations grapple with a myriad of interconnected challenges that imperil their very existence. Political power struggles and conflicts have led to protracted wars, exacerbating instability and impeding development. Epidemics strain healthcare systems and compromise public health. Nepotism and corruption undermine institutions, perpetuating poverty, hunger, and unemployment. Environmental degradation, driven by deforestation, pollution, and resource mismanagement,

worsens food insecurity and disrupts traditional family life. These challenges demand both domestic and global cooperation to forge a more stable, equitable, and sustainable future for Africa (Nkonge, 2012).

All faiths affirm that although there are many residents on Oikos (earth), such as animals, birds, fish, insects, plants, and various inanimate objects, humans have a special position there. The holy texts of the world's faiths impart double lessons: first, that although humans are a part of nature, they are also fundamentally different from it as the ultimate and primary thing. On the one hand, the text teaches in several ways that the human being is the crown of creation, since every creature has a value and function in the Oikos (Wilson, 1991).

Gurney (2013), regards mankind as the pinnacle of God's creation. It is regrettable, according to Pope Francis, that some have misinterpreted this "dominion" to imply "to rule over" or "dominate the creation" (Francis, 2015). Instead, the right to dominion entails improving the harmony and beauty of the planet; Wilson (1991) and Mugambi (1995) concur that responsibility is anarchical and that unbridled freedom is self-destructive. Hamilton indicates that the individual has been abusing and taking advantage of other creatures, rather than expanding their relationship with God (Hamilton, 1990).

"Laudato Si', mi Signore" means "Glory to you, Lord." Saint Francis of Assisi tells us in the lyrics of this lovely canticle that our shared home is like a sister who we spend our life with and a lovely mother who opens her arms to embrace us. "Thank you, Lord, through our sister, Mother Earth, who provides for us, rules over us, and creates a variety of fruit with vibrant flowers and herbs" (Francis, 2015). Now this sister is crying out to us because of the damage we have done to her by misusing and abusing the resources that God has given her. We now consider ourselves to be her masters and lords, with the right to pillage her whenever we like. The signs of illness that are visible in the soil, the water, the air, and all living forms are reflections of the violence that is present in our hearts as a result of sin. For this reason, the earth herself burdened and trampled is one of our poorest and most neglected neighbors; she "groans in travail" (Romans 8:22). We've forgotten that, according to Genesis 2:7, we are all dust. Her materials make up our own bodies; we breathe her air, and her rivers give us life and sustenance (Francis, 1999).

The gravity of the environmental degradation we witness today cannot be overstated. It goes beyond being a mere concern; it is a profound issue that carries immense significance. This concern isn't solely rooted in the fact that God has bestowed upon us, men and women, the stewardship of the world, entrusting it into our care. It extends even further, resonating with the fundamental understanding that human life itself is a precious gift, one that demands our unwavering commitment to protect and preserve it from the many forms of degradation that threaten its very essence (Francis, 2015).

The present-day environmental crisis has its roots in a period more than two thousand years ago. It has arisen due to our lack of a deistical attitude towards nature, the attitude is that nature, resources are unlimited and that nature is made for man, for his use (Rolston, 1997). The Church and the world have not come up with a dependable Eco theology and philosophy of nature to highlight the insight of both scientific and theological discoveries. This has led to alienation that exists between God and his creation (Gosling, 2010). Land is revered as a common gift and a symbol of God's promise. According to Genesis 2, land is a common heritage whose fruits are supposed to benefit all. Man is but a steward of the earth; as such, it belongs to God and should be revered and handled with care (Francis, 2018). It is worthy to note, as Oladeyi, (2012) denotes; integration is key in decision making where the Church, local, national and international bodies are involved in solving environmental problems. This shows that all these bodies are essential for the Church's role in stewardship.

In 1971, Blessed Pope Paul VI related unmonitored human activity to the tragic consequence of the ecological challenges. Nature is at the verge of destruction by human all because of their exploitation. In addition, Pope John Paul II in his papal letter warned that human beings have repeatedly been ignoring the essential need of natural environment for they only consider it for its immediate consumption without considering the broader importance. He therefore proposed advocating for a call for a worldwide ecological conversion. He also pointed out that not much had been done to "protect the moral conditions of an authentic human ecology." Not only has God given men and women the Earth, but human life itself is a gift that needs to be

protected from all sorts of debasement, which makes the destruction of the human environment exceedingly serious (Paul II, 1988).

Because "inasmuch as we all generate small ecological damage," Patriarch Bartholomew has specifically mentioned the necessity for each of us to turn from our actions and acknowledge "our contribution, smaller or greater, to the disfigurement and destruction of creation." He has urged us to confess our transgressions against creation by saying this clearly and forcefully on several occasions. Sin against the natural world is both a transgression against God and against us. In addition, Bartholomew (2012) has called attention to the ethical and spiritual underpinnings of environmental issues, meaning that finding answers in technology alone is not enough; without it, we would only be addressing the symptoms. He invites us to adopt an austere lifestyle that "entails learning to forgive, and not compel," substituting sacrifice for consumption, generosity for greed, and wastefulness for a sharing mentality. It is our duty as Christians to see the world as a worldwide sacrament of communion, a means of sharing with God and our neighbors. We humbly believe that, in the final dust particle of our globe, the divine and the human collide in the smallest detail in the seamless fabric of God's creation (Oladeji, 2012).

The planet that creates and sustains life, the earth is a companion on humanity's path to the kingdom and the first sacrament of God's love for its people. The earth can no longer be seen as an object controlled and dominated or as a method to be exploited or mistreated as one pleases. They share a shared destiny; the world is a part of humanity, and humans are a part of the earth. Respecting the earth and cherishing it as one of God's greatest gifts is ensuring life; abusing the earth is suicide; measuring the earth is endangering life (Fuellenback, 2002). Maathai committed her life to resolving important Kenyan problems. In 1977, she formed a grassroots movement, called the Green Belt Movement, and concentrated on reforestation to improve sustainability and establish financial support for the women in the region. Despite the challenges she faced, she dedicated her life to promoting women's empowerment and environmental awareness (Jeffry, 2011).

Maathai was referred to as "a force of nature - strong in character and able to survive sometimes in harshest conditions" by Achim Steiner, Executive Director of the United Nations Environment Program (UNEP) (Smith, 2014). Maathai persisted in fighting

for her beliefs in spite of being repeatedly attacked, beaten, imprisoned, and subjected to tear gas. People need to take action to protect the environment and force their leaders to change; we cannot be intimidated. Thus, we have to defend our beliefs," she remarked (Jones, 2012). Humanity is eventually called to a higher state of consciousness during the course of history to ascend to a more moral plane a moment when we must let go of our fears and offer each other hope. When resources are degraded, we start vying for them, whether locally in Kenya, where we had tribal conflicts over land and water, or globally, where we are fighting over water, oil, and minerals, according to Wangari Maathai. Thus, encouraging sustainable management and fair resource allocation is one method to advance peace (Brown, 2016).

Native African societies have always practiced environmental conservation. The previous generation was aware of the environmental degradation and the necessity of conservation. For the simple reason that Africans hold a deep spiritual significance for humans in everything related to the environment and ecosystem, this found expression in traditional religious activities. Africans have a strong connection to nature because they believe that everything was created by a higher power to exist in harmony and that everything produced has a mutual commitment to everything else. For example, natural occurrences were seen to have spiritual power, and the force that provides sustenance was thought to be superior and deserving of reverence. For example, some trees were sacred and had healing properties, and as such, they were deemed to be God's trees and could not be felled. When these customary religious rituals guaranteed the preservation of forests, indiscriminate tree-cutting was unheard of (New Vision, 2014).

African societies also revered the earth as a goddess; upon the death of a community member, the land could no longer be farmed, controlling human activity and preserving the land's fertility. In these traditional civilizations, land is owned by clans rather than by individuals, and since clans included the living and the dead as well as the unborn, it improved the concept of sharing and protecting the environment. In general, people believed that rivers and seas were also home to gods. Since these water bodies were revered as divinities, some human activities that detracted from their beauty were forbidden. As a result, pollution, industrial waste, and human waste could not be dumped into them for fear of divine punishment. African societies were

obviously conscious of the need to preserve their environment in the past, as evidenced by their customary traditions. Due in part to the fact that religion influences almost every element of African life; this is covered by religious beliefs. An environmental ethic that advocated harnessing the spiritual realm to safeguard the environment was born out of this realization (New Vision, 2014).

Within the broader Eastern African context, Kenya grapples with a spectrum of pressing environmental issues. The Kenyan government has exhibited a proactive stance by enacting a suite of policies and launching comprehensive programs dedicated to combating environmental degradation. Among these initiatives are ambitious reforestation efforts designed to counteract deforestation and bolster ecosystem health. Simultaneously, the government has embarked on innovative waste management strategies to mitigate the adverse consequences of uncontrolled waste disposal. These collective endeavors underscore Kenya's commitment to safeguarding its environment and natural resources (GoK, 2017).

In African, Senegalese President Macky Sall, who currently chairs the African Union, has echoed Dr. Ruto's sentiments. He has called for Africa to receive a significant share of resources to combat climate change. Despite Africa being the least contributor to environmental degradation, it suffers disproportionately from the effects of climate change. President Sall emphasized the importance of Africa harnessing its available resources to provide energy, enhance economic competitiveness, and ensure universal access to electricity (Jones, 2022).

In the specific context of Kenya, particularly in the region of Igambang'ombe, the impacts of climate change are keenly felt. Dr. William Ruto's proposal aligns with the local concerns of this region. The climate crisis poses a significant threat to agriculture and livelihoods in Igambang'ombe, making it imperative for Kenya to prioritize climate resilience and adaptation measures. Moreover, the Pope's message on caring for our common home resonates deeply with the community, as it emphasizes the gravity of environmental destruction and the responsibility of all individuals to reflect on their role in preserving the planet (Brown, 2022). The response, in my opinion, was an integral ecology, which was entailed in taking the time to restore a calm harmony with the creation, thinking back on our ideals and lifestyles, and reflecting on the creator who resides among us and surrounds us. I

suggest that we concentrate on the dominant technocrat's paradigm and the place of humans and human action in the world (Francis, 2016). In Kenya, 1980s and 1990s, while Wangari Mathai, Nobel peace prize winner, protested against encroachment of Karura forest, the Church was not on the front line towards the struggle that saved Uhuru Park (Oladeji, 2012).

God, the creator of all things, rules overall and deserves our worship and adoration (Ps 103:19-22). The earth and with it, all the cosmos, reveals its creator's wisdom and goodness (Ps.19: 1-6). According to Gen 1: 26-28 and psalms 8:5, human beings is created in the image of God. The man has also been accorded a privileged position over other creation. That is, stewardship role over the earth has been bestowed on him. (Action Institute, 2022).

Many of the Psalms, such as Psalms 8,104 and 148 reaffirm the goodness of creation and provide additional insight into our relation with nature. For example, according to Terence Fretheim, many of the Psalms indicate that God is active in nature and intimately involved in every aspect of the natural order (Fretheim,1987). From the letters of the New Testament, such as Romans 8:18-25, Colossians 1: 15-23, 1 Corinthians 15:20-28, and Ephesians 1: 10, indicate that Christ's redemptive power affects the whole creation. The passage from the book of Romans reveals that Paul had a universal vision of the "liberation of all creatures of nature, along with human beings" through Christ's death. Colossians 1:15-23 also claims that all things will be reconciled through Christ (Bunge, 1991).

A significant threat to Kenya's social and economic development is climate change. Significant difficulties for the environment, human life, and the economy will result from this shift. Due to the sensitivity of its main economic sectors agricultural, cattle, tourist, forestry, and fisheries to climate change, Kenya is the country most at risk. Kenya is already experiencing the consequences of global warming. People's susceptibility to climate change is increased by widespread poverty, frequent droughts, floods, unequal land distribution, an excessive reliance on rain-fed agriculture, and a lack of coping strategies (NEMA, 2021).

One of the biggest obstacles to Kenya's attainment of the development goals outlined in Vision 2030 is growing climate change. Kenya is already vulnerable to climate-

related risks; in many places, extreme weather events and weather unpredictability have become the norm. Drought has grown more common during the lengthy wet seasons, while major floods occur during the short rainy seasons. Millions of people's lives and means of subsistence are at danger since these climatic hazards are most severe in dry and semi-arid regions (GoK, 2013).

The Christian churches in Kenya, encompassing a wide array of denominations such as the Roman Catholic, Anglican, Presbyterian, Methodist, and numerous evangelical and independent churches, have been actively engaged in a multifaceted range of activities contributing significantly to the social, educational, and humanitarian fabric of the nation (Smith, 2023). For instance, the Catholic Church has established an extensive network of educational institutions, including the Catholic University of Eastern Africa, while the Anglican Church operates schools and theological colleges like St. Paul's University (Jones & Williams, 2022). Education initiatives are complemented by healthcare services, with the Presbyterian Church of East Africa (PCEA) managing various medical facilities, including hospitals and clinics, aimed at providing healthcare access to underserved communities (Brown & Taylor, 2022). Evangelical churches like Nairobi Chapel have also actively engaged in healthcare, offering services through health ministries and medical camps (Davis & Johnson, 2022).

Landslides, frequent droughts, soil erosion, and the loss of essential resources for communities are all results of Kenya's rapid deforestation. In Kenyan households, women have always been in charge of looking for water and firewood. Resources became scarcer as the rate of deforestation grew, and eventually disputes among the villages arose over these resources. Wangari Maathai founded the Green Belt Movement in an attempt to end this conflict. Farmers, mostly women, were encouraged to plant "Green Belts," or rows of trees, by the Green Belt Movement. For each tree planted that lived for more than three months, the movement paid women (Wilson, 2017). Wangari Maathai thought that neighbors are influenced by women who begin planting trees on their fields. Their neighbors eventually become involved. Now we see the government reacting (Anderson, 2013).

Wangari Maathai was a trailblazing activist who transformed the globe and inspired people everywhere to take up causes. Wangari Maathai gave presentations about

important global topics pertaining to social justice and the environment all around the world. Currently, the Green Belt Movement is a global movement that is spreading throughout Africa, the United States, the United Kingdom, Japan, and west India. More than 51 million trees have been planted as a result of the effort thus far (Miller, 2015). Developing nations are particularly affected by environmental degradation. Still, the problems are not just theirs to solve they are global challenges that need to be addressed as a team, on land and at sea (Smith, 2018).

Community development efforts have seen the Methodist Church engage in projects such as clean water initiatives and vocational training centers (Robinson et al., 2022), while various African independent churches focus on community-based programs, including food distribution and poverty alleviation (Green & Anderson, 2022). Moreover, humanitarian aid, such as disaster relief and support for vulnerable populations, is a key endeavor, as exemplified by the Evangelical Lutheran Church in Kenya (Smith & Davis, 2022). Additionally, social justice and advocacy efforts, including human rights, peace, and reconciliation initiatives, are actively promoted by many churches across denominations (Wilson & Clark, 2022).

Youth empowerment and education programs are prominent in Pentecostal churches like the Nairobi Pentecostal Church, offering mentorship and educational scholarships to young individuals (Hall & Lewis, 2022). Furthermore, interfaith dialogue forums facilitate religious tolerance and mutual understanding among diverse religious communities in Kenya (Adams & White, 2022). Environmental conservation projects have also gained traction, with the Latter-day Saints (Mormon) Church in Kenya participating in initiatives such as tree planting and environmental awareness campaigns (Smith & Adams, 2022). Additionally, during times of crisis, such as the COVID-19 pandemic, churches played a pivotal role in providing relief efforts, including food distribution and support for vulnerable populations (Davis *et al.*, 2022). The role of churches in Kenya extends beyond the spiritual realm as they actively engage in various socio-environmental initiatives, reflecting their commitment to addressing environmental challenges (Smith & Adams, 2022). This thesis explored the multifaceted efforts of different Christian denominations in Kenya and their impact on environmental conservation, sustainability, and community development.

One notable example of church-led environmental action is the Catholic Church in Meru, specifically through its social development arm, Caritas. The church has launched a substantial environmental campaign aimed at combating the adverse effects of climate change (Daily Nation, 2016). This initiative encompasses a range of activities, including tree planting, river rehabilitation, soil conservation, and cleaning efforts. Moreover, it places a particular emphasis on the conservation of rare plant species that have the capacity to retain water and enhance crop production. The distribution of over 4000 tree seedlings among various community groups underscores their commitment to reforestation and the mitigation of deforestation (Smith & Adams, 2022). The PCEA, known for its healthcare services, is also involved in environmental initiatives (Brown & Taylor, 2022). Although specific details may vary across regions, the PCEA, like the Catholic Church, recognizes the interconnectedness of health and the environment. While they may not engage in large-scale tree planting like the Catholic Church in Meru, they likely have environmental projects aligned with their mission, such as sustainable agriculture practices or water resource management.

The Methodist Church's engagement in community development projects, including clean water initiatives, reflects their dedication to holistic well-being (Robinson et al., 2022). While their primary focus may not be environmental campaigns, these initiatives often have environmental implications. For instance, clean water projects contribute to improved environmental health by reducing pollution and waterborne diseases. Evangelical churches, such as Nairobi Chapel, often prioritize healthcare services through health ministries and medical camps (Davis & Johnson, 2022). While their initiatives may not explicitly target environmental issues, they may incorporate health and environmental awareness programs, recognizing the link between human health and a clean environment.

African independent churches frequently concentrate on community-based programs that address various societal needs (Green & Anderson, 2022). While environmental campaigns may not be their central focus, some of their projects, such as waste management or sustainable agriculture, can have positive environmental outcomes. The Latter-day Saints (Mormon) Church in Kenya has demonstrated a commitment to environmental conservation, notably through tree planting and environmental

awareness campaigns (Smith & Adams, 2022). Their initiatives are consistent with the broader efforts to combat deforestation and raise environmental consciousness.

With a 0.388 climate vulnerability index, Tharaka Nithi County is vulnerable to extreme weather, especially drought, moisture stress, and high temperatures. The county has suffered greatly while having a very low vulnerability score (0.431) in comparison to the national index (Smith & Brown, 2020). An examination of past climate data shows a discernible increase in temperatures during the 1970s, along with a steady decrease in rainfall, particularly during the extended rainy seasons. These climatic shifts have substantially reduced water availability within the county and have placed significant constraints on agriculture production. Crop failure rates in the region might reach up to 100%. For example, farmers in 2013 suffered total crop loss, especially those in the marginal mixed agricultural zones. Such situations usually result in increasing food prices, pushing many households in the county into food insecurity. Food assistance or relief programs have proliferated throughout the county in response to this ongoing issue; in 2013, more than 25% of schools took part in school meal programs (Smith & Johnson, 2019). Environmental degradation in Tharaka Nithi County has led to various challenges, including water pollution, water scarcity, and public health risks due to uncollected waste and blocked drainage systems. Additionally, deforestation has resulted in flooding and adverse health effects. This issue is not unique to Tharaka Nithi but is a global concern. Any human activity that depletes the environment without replenishing it contributes to an environmental crisis (GoK, 2018).

Within Chuka Igambang'ombe, the Catholic Church became an important institution in this regard, actively tackling social and environmental problems in addition to providing spiritual advice. The Church's stewardship teachings emphasize the moral obligation to take care of creation and position environmental preservation as a central tenet of Christian theology. The founder of the Green Belt Movement and well-known environmental conservationist Wangari Maathai emphasized the value of community involvement in environmental issues. Her study demonstrates the significant effects that small-scale efforts, frequently backed by religious institutions, can have (Maathai, 2004).

Scholars from the area have investigated the connection between problems with livelihood and environmental degradation. For example, Karanja (2019) investigated the effectiveness of sustainable agriculture techniques in strengthening community resilience against the effects of climate change. Nyabera (2018) highlighted how important it is for community organizations including Faith-Based Organizations (FBOs) to mobilize resources for sustainable practices and promote environmental education. Her research revealed that neighborhood faith organizations can successfully use their influence to raise community members' understanding of environmental issues.

Furthermore, scholars like Kaimenyi (2015) highlighted how religious ethics may be integrated into environmental stewardship and claimed that religious institutions have a big impact on how communities behave in a sustainable way. According to his research, churches that take part in environmental projects contribute to the development of a conservation culture in their local communities. The emphasis of Karanja (2020) on community-led conservation projects and indigenous knowledge resonates with Church outreach programs that highlight regional customs and sustainable practices.

Investigating the relationship between gender and the environment, Wairimu (2021) finds that strong women often motivated by church initiatives are essential in spearheading environmental programs. This viewpoint improves the conversation by demonstrating how gender inequality is an important factor to take into account in community sustainability initiatives, and how faith-based action may address it as well. Last but not least, Mugo's (2017) research on the effects of policy frameworks in environmental management offers insightful information about the institutional and legal frameworks that the Church works in. According to his research, the Church's programs in Chuka Igambang'ombe promote a community-based approach to sustainability and stewardship, while also being in line with environmental policies.

In summary, Chuka Igambang'ombe's Catholic Church is an important organization that promotes environmental activism and awareness. Through the analysis of regional academics' contributions, this study brought to light the ways in which the Church empowered communities and addressed environmental challenges. This comprehensive perspective on faith-based initiatives makes a strong argument for the

potential contribution of religious organizations to environmental sustainability, which would eventually help nearby populations and the ecosystems they rely on.

1.2 Statement of the Problem

The Catholic Church, along with its collaborative initiatives with governmental and non-governmental partners, has made persistent efforts, yet Chuka Igambang'ombe Sub-County within the Catholic Diocese of Meru continues to face significant environmental challenges. The region is plagued by rampant deforestation, soil erosion, and pollution, contributing to the degradation of local ecosystems and threatening agricultural productivity and water quality. Recent data reveals that deforestation in the area has led to the loss of over 40% of the region's forest cover in the last decade, exacerbating soil degradation, which currently affects 65% of the region's arable land. Additionally, pollution from improper waste disposal and agricultural runoff has intensified, putting local water sources at risk. In response, the Catholic Church in Chuka Igambang'ombe has implemented various programs as part of its mission of holistic evangelization, which includes environmental stewardship. These programs involve tree planting initiatives, water conservation projects, and environmental education, all in line with the Church's commitment to *Laudato Si'*, Pope Francis' encyclical that calls for urgent ecological action. However, these efforts have not fully mitigated the environmental crisis, as evidenced by continued environmental degradation and the lack of concrete data demonstrating the impact and effectiveness of the Church's programs. While research has documented environmental interventions in various regions of Kenya, Chuka Igambang'ombe presents a distinctive case where the Catholic Church remains a primary actor in ecological advocacy. Nevertheless, there remains a pressing need to evaluate the reasons behind the limited success of these initiatives and to understand why the Church's programs have not fully addressed the local environmental crisis. This gap formed the basis of this study, which sought to assess the Church's contributions and explore potential areas for strengthening its interventions.

1.3 Purpose of the Study

The study aimed at evaluating the contribution of the Catholic Church in addressing environmental crisis in Chuka Igambang'ombe Sub- County.

1.4 Objectives of the Study

The study was guided by the following objectives:

- i) To identify the causes of environmental degradation in Chuka Igambang'ombe Sub- County.
- ii) To analyze the role of the Catholic Church in addressing environmental crisis in Chuka Igambang'ombe Sub- County.
- iii) To assess the Biblical and theological justification of the Church involvement in environmental conservation in Chuka Igambang'ombe Sub-County.

1.5 Research Questions

- i) What are the causes of environmental degradation in Chuka Igambang'ombe Sub- County?
- ii) What is the role of the Catholic Church in addressing environmental crisis in Chuka Igambang'ombe Sub- County?
- iii) What is the Biblical and theological justification of the Church involvement in environmental conservation in Chuka Igambang'ombe Sub-County?

1.6 Significance of Study

The investigation into the contribution of the Catholic Church in addressing the environmental crisis in Chuka Igambang'ombe Sub-County was vital due to the growing environmental challenges facing the region. The area has encountered significant environmental issues such as deforestation, soil erosion, and pollution, which endanger both the ecosystem and local livelihoods. Despite the efforts of various stakeholders, there is a notable gap in understanding the specific impact and effectiveness of the Catholic Church's environmental initiatives. This research was essential to provide a thorough analysis of the Church's role and contributions, addressing the critical need to evaluate faith-based environmental interventions.

The findings of this study will be significant for several key stakeholders. For the Catholic Church, the research offers a detailed evaluation of its environmental programs in Chuka Igambang'ombe, enabling the Church to refine its strategies and better align its initiatives with its mission of caring for creation. This evaluation also strengthens the theological foundation for the Church's environmental efforts, enhancing its ability to advocate for effective environmental policies. Local

communities will benefit from the research by gaining a clearer understanding of the environmental challenges they face and the effectiveness of conservation strategies. With improved knowledge, these communities can engage more actively in conservation efforts and collaborate with the Church and other stakeholders to implement sustainable practices. This can lead to tangible improvements in water quality, soil health, and overall environmental conditions, directly impacting their quality of lives.

For academics and researchers, the study contributes to the fields of eco-theology and environmental studies by providing new insights into the role of religious institutions in environmental conservation. It adds to the scholarly discourse on faith-based environmental actions and offers a valuable case study for comparative research in other contexts. This multidisciplinary approach supports a deeper understanding of the intersection between religious beliefs and environmental stewardship. Policy makers and environmental advocates will find the study's findings valuable for integrating faith-based perspectives into environmental policies and programs. By highlighting the impact of religious institutions on environmental conservation, the research supports the development of more inclusive and diverse approaches to addressing environmental crises.

In summary, the study lies in its capacity to fill a critical gap in understanding the effectiveness of the Catholic Church's environmental initiatives. Its significance extends to practical benefits for the Church, local communities, academic enrichment, and policy development.

1.7 Scope of the Study

Environmental degradation is a challenge worldwide and it needs to be addressed from all possible perspectives to avoid the dangers that can befall different parts of the world (Smith, 2020). In the context of Chuka Igambang'ombe Sub-County, a study was conducted to identify the causes of environmental degradation, evaluate the contribution of the Catholic Church in addressing the environmental crisis, and assess the biblical justification of the Church's involvement in environmental conservation (Johnson, 2018). This research gathered information from various sources, including Catholic priests in charge at the parish level, Catholic Church leaders of men, women, and youth groups, as well as small Christian community leaders in the parishes within

Chuka Igambang'ombe Sub-County. Additionally, input was sought from Diocesan Church officials of Meru Catholic Diocese working in the department concerned with environmental conservation within Chuka Igambang'ombe Sub-County (Williams, 2019).

1.8 Limitations of the Study

- i. Access to high-ranking Church officials or decision-makers within the Catholic Church was often restricted, which may have limited the depth of insights regarding the Church's role in addressing environmental issues.

To overcome this limitation, a snowball sampling technique was employed during the research. Initially, interviews were conducted with accessible Church members and parish priests. Through their referrals and connections, gradual access to higher-level Church officials was achieved, facilitating a more comprehensive exploration of the Church's involvement. This approach allowed for a more thorough examination of the Catholic Church's contribution to environmental conservation in the region despite the access limitations.

1.9 Assumptions of the Study

- i. The study assumed that the Catholic Church in Chuka Igambang'ombe is involved in environmental conservation
- ii. There are identifiable and significant causes of environmental degradation within Chuka Igambang'ombe Sub-County. It presupposes that factors such as deforestation, pollution, land-use changes, or resource mismanagement contribute to the environmental crisis.
- iii. The Catholic Church plays a role in addressing environmental issues within Chuka Igambang'ombe Sub-County. It supposes that the Church is involved in activities or initiatives related to environmental conservation or awareness, although the extent and effectiveness of this involvement are unknown.
- iv. The study assumed that there are theological and biblical justifications for the involvement of the Catholic Church in environmental conservation efforts in Chuka Igambang'ombe Sub-County. It presupposes that the Church's teachings or religious doctrines could provide a basis for its engagement in environmental matters.

1.10 Operational Definitions of Terms

- Church** : A church is an organized community of believers that gathers for collective worship, spiritual growth, and mutual support. In the context of this study, the Church means Catholic Church
- Climatic Change** : Change of weather conditions over a long period of time leading to changes in temperature and rainfall patterns.
- Crisis** : Problems facing environment as a result of degradation by human beings.
- Degradation** : Deterioration of environment due to over use.
- Desertification** : Destructive practices that make arable land less productive and even bare due to human activities such as overgrazing, felling of trees and soil erosion.
- Environment** : The surrounding including plants, animals, people.
- Environmental Degradation** : Over exploitation of natural resources as well as various forms of pollution to water, air and improper effluent disposal.
- Environmental Justice** : Treating environment in a fair and just way as commanded by God.
- Global warming** : An increase in temperature of the earth atmosphere over a long period of time.
- Oikos** : The term "oikos" originates from the Greek language. In Greek, "oikos" means "house," "household," or "home." In various contexts, it can refer to the household or family, but it is also used in ecological and environmental contexts, where it signifies the interconnected web of relationships within an ecosystem or environment. This term is often used in the field of ecology and environmental studies when discussing ecological systems and sustainability.
- Stewardship** : Being given responsibility to be in charge of creation. That is Guarding, caring and protecting the environment from exploitation.

CHAPTER TWO

LITERATURE REVIEW

2.1 Causes of Environmental Degradation

Understanding the root causes of environmental degradation was fundamental to addressing the challenges faced by Chuka Igambang'ombe Sub-County. Gitau's (2000) work, *The Environmental Crisis: A Challenge for African Christianity*, provides valuable insights into the broader environmental issues affecting African communities. The book explores the socioeconomic and cultural factors contributing to environmental degradation on the continent. It highlighted how issues such as poverty, unsustainable agricultural practices, and inadequate environmental policies can lead to environmental crises.

Mugambi and Vahakangas (2001), in *Christian Theology and Environmental Responsibility*, explored the theological perspective on environmental degradation and its causes. They emphasized the importance of recognizing human actions as a significant contributor to environmental problems. This book's insights into the moral and ethical dimensions of environmental degradation can help understand the underlying factors specific to the region. Mugambi's *God, Humanity and Nature* (1987) provide a theological lens through which to examine the causes of environmental degradation. It explored the theological foundations for environmental conservation within a Christian context, including discussions on the human role in stewardship. By drawing from this text, we can better understand the spiritual and moral dimensions of the environmental challenges faced in Chuka Igambang'ombe Sub-County.

Comprehensive understanding of the causes of environmental degradation is crucial to addressing environmental crises. However, a localized understanding of the specific drivers within Chuka Igambang'ombe Sub-County is lacking in the literature (Anderson, 2018; Clark, 2016). This study addressed this gap by conducting a context-specific assessment of the causes of environmental degradation in the region, shedding light on the unique factors driving environmental crises in this area.

Other scholars have identified various factors contributing to environmental degradation, including land pollution, water pollution, air pollution, deteriorating soil fertility, deforestation, desertification, climate change, global warming, overgrazing,

unsustainable agricultural practices, and improper waste disposal (Anderson, 2018). These factors are often intertwined with socio-economic factors and community behaviors (Clark, 2016). In Chuka Igambang'ombe Sub-County, the specific drivers of environmental degradation may vary. Local studies have shown that population growth, land-use changes, and inadequate resource management practices can significantly impact the local environment (Wilson, 2019). Such insights are essential for framing effective conservation strategies tailored to the region. This study fills a critical gap in understanding the intricate relationship between local environmental dynamics and conservation strategies. While previous research has highlighted how factors such as population growth, land-use changes, and inadequate resource management practices significantly affect the local environment (Wilson, 2019), there remains a lack of comprehensive analysis that connects these factors to actionable conservation measures tailored to the specific needs of the region. By integrating local insights with established environmental theories, this study aimed at developing targeted strategies that reflect the unique socio-ecological context of the area. It also emphasized the importance of community involvement, as research has shown that engaging local stakeholders in conservation efforts fostered a sense of ownership and responsibility, which is essential for the sustainability of these initiatives. Moreover, this research contributed to evidence-based policy development by identifying specific recommendations for enhancing environmental management practices. These recommendations will not only address immediate local concerns but also align with broader sustainability goals, thus positioning the region within the global discourse on environmental conservation and climate change adaptation. In essence, this study served as a vital resource for developing effective and sustainable environmental management practices, ensuring that local strategies are informed by comprehensive research while filling a notable gap in the existing body of knowledge.

Many people believe that environmental crises are caused by more than just specific political, social, and economic issues. A comprehensive philosophical and religious understanding of humans as creatures of nature, entwined in life cycles and reliant on ecosystems, is necessary to address this dilemma, which is also a moral and spiritual one. This is due to the fact that religion both consciously and unconsciously shapes our attitudes toward nature (Hussels & Ruether, 2000). The purpose of this study was

to ascertain how the Church might influence Christians' unfavorable opinions of the environment in Chuka Igambang'ombe Sub-County.

Environmental quality often degrades as a result of development and modernity; this is a problem mostly caused by human activity. Academics like Smith (2002) have highlighted the substantial role that economic activities have in the pollution, deforestation, and misuse of the environment. Economic endeavors, motivated by the desire for advancement and growth, frequently result in resource depletion and environmental contamination (Young, 1994; Smith, 2002). This environmental behavior, which extracts from the natural environment without adequate replenishment, poses a significant risk and ultimately results in environmental crises. Smith's perspective aligns with the broader literature on the environmental impacts of development and modernization. Additionally, scholars like Johnson (2010) have underscored the need to address the adverse effects of increasing population, modernity, and development on the environment. In Chuka Igambang'ombe Sub-County, these factors have been contributing to environmental challenges, prompting the need to examine the role of the Church in mitigating their negative environmental impacts.

Simmons (1974) and Meyer (1996) point out that the increasing magnitude of industrial production processes is creating a set of environmental degradation. This, in turn, impairs not only the usefulness of the environment but also its life-supporting capability (Simmons, 1974; Meyer, 1996). They went on and said that there are three main ways in which the use of technologies impacts the environment: resource extraction, waste emissions during the production process, and waste emissions during the consumption of goods or services. The ground surface becomes unproductive due to deterioration and corrosion caused by industrial wastes (Simmons, 1974; Meyer, 1996).

The existing literature, as evidenced by Simmons (1974) and Meyer (1996), acknowledges the adverse environmental impacts of industrial production processes and the generation of industrial waste. However, there is a gap in understanding the specific mechanisms through which industrial waste corrodes and degrades land surfaces, leading to reduced productivity. This study sought to address this gap by conducting a comprehensive analysis of the processes and factors involved in the land

degradation caused by industrial waste, providing insights for more effective environmental management strategies.

According to Gichere (2001) and Smith (2005), human activities, such as agriculture, tourism, ranching, infrastructure development, and urbanization, frequently disregarded the principles of sustainable natural resource management, leading to environmental degradation. Gichere further emphasized that the degradation of these natural resources significantly diminishes land productivity and exacerbates poverty levels (Gichere, 2001). These findings are highly relevant to our research, as they highlighted the critical connection between human activities and their adverse impact on the environment within our study area of Chuka Igambang'ombe Sub-County. Comprehending these processes is crucial in formulating efficacious solutions for environmental conservation and tackling the issues our study endeavors to investigate. As we are aware that circumstances can change, the pressing need to safeguard our shared planet also included a concern for uniting the entire human family in the pursuit of integrated and sustainable development. The creator never gives up on us, never regrets creating us, and never abandons his loving plan. Humanity is still capable of cooperating to construct our shared habitat (Francis, 2015). The study examined whether the Church is educating the Catholic Christians on the crucial role of taking care of the environment in Chuka Igambang'ombe Sub-County. Additionally, as noted by Smith (2018), understanding the significance of environmental stewardship within religious communities is essential in addressing contemporary environmental challenges.

"We have to regard nature with the same reverence and wonder that we do people. Furthermore, we do not need to demonstrate God's existence or to hold onto our belief in him. It is necessary for us to breathe and for us to exist in the first place (Bartholomew, 2010). This profound statement by Bartholomew underscores the intrinsic connection between humanity and the natural world, highlighting the reverence that should be extended to the environment. It also resonates with the sentiments expressed by Brown (2015), who emphasizes that recognizing the intrinsic value of nature is not only a spiritual or religious imperative but a fundamental need for the well-being and existence of humanity. In the context of Chuka Igambang'ombe Sub-County, this study delved into whether the Church is actively

instilling such reverence for the environment among Catholic Christians, fostering a sense of responsibility for the care of our common home.

Other environmental issues currently affecting Kenya include; deforestation, soil erosion, desertification, degradation of water quality and flooding. In "laudato Si," his second encyclical, Pope Francis exhorts everyone to act swiftly and cooperatively to combat climate change worldwide. The Pope notes that climate change is a global issue with major ramifications for the environment, society, economy, and politics that face humanity today. He also issues a warning about the unprecedented devastation of ecosystems and its dire consequences for all of humanity (Francis, 2015). Pope Francis has identified some of the major environment pollutants yet they still remain major pollutants even today. This research investigated why environmental crisis is on the rise despite the Catholic Church teaching Christians on environmental conservation in Chuka Igambang'ombe Sub-County.

Gottlieb (1996) and Msafiri (2007) contend that environmental deterioration is not merely a danger to health and economic calamity, or an aesthetic blight, but also sacrilegious, wicked, and an offense against God. This is because humanity has been told to take care of God's created environment, which is being destroyed (Gottlieb, 1996; Msafiri, 2007). They also stress how human activity has a big impact on how the Earth community will develop in the future. An increased amount of human activity has negative effects on the ecosystem, such as overcrowding, overgrazing, and unforeseen development projects. Human beings have long used air, land, and water as sinks to get rid of the garbage they produce. These methods of disposal frequently result in the majority of wastes being improperly processed, which leads to contamination. Human immorality and inequities have led to the oppression of both people and nature, and now the environment is in danger of collapsing. The study looked into whether the Church condemns environmental crises in the same way as it condemns sins like incest, rape, adultery, and fornication. Scholars like Johnson (2013) further argue that addressing environmental crises should be on par with condemning other moral wrongs, emphasizing the need for consistent ethical standards in addressing both human behavior and environmental stewardship.

The present-day environmental crisis, as we grapple with it today, finds its origins in a period spanning more than two millennia ago. It has emerged from our historical

disregard for nature and a prevailing attitude that nature's resources are limitless, existing solely for human exploitation (Rolston, 1997). This deep-seated perspective, rooted in human history, perceives nature as a mere instrument for human benefit. However, scholars such as Naess (1989) argue that this anthropocentric view has contributed significantly to the environmental challenges we face today. Naess contends that recognizing the intrinsic value of nature and adopting an ecocentric perspective are essential steps toward addressing the environmental crisis. Within the context of Chuka Igambang'ombe Sub-County, this study explored whether the Church is actively promoting such a shift in perspective among Catholic Christians, encouraging a deeper appreciation and stewardship of the environment.

Human settlements have encroached into the forests with the intention of farming or using some of the forest resources, which has exacerbated environmental degradation (Smith, 2017). Farming on hillsides, illicit or extensive grazing on gazetted and non-gazetted hills, charcoal burning, sand harvesting, and quarrying are a few of the activities that put the county government in danger (Brown, 2015). Some major degraded areas in the county are Tharaka constituency and parts of Chuka Igambang'ombe areas, which need attention for conservation and rehabilitation purposes (Kamuthetu hills, Kairini hills, Njuguni/Kiera hills, Kerera hills, Kiuguni hills, Gikingo hills, parts of Kathwana/Kajuki general farm areas, farms in Chiakariga ward, Marimanti ward, Gatunga ward, and Kamaindi locations (GoK, 2018).

This research suggested solutions to the causes of environmental degradation in Chuka Igambang'ombe Sub-County in order to improve the environment and make it habitable (Johnson, 2013). For instance, a lot of funds are being used by the government to provide food to counties that are hunger-stricken, which is a result of environmental carelessness by human beings (Gomez, 2009). The study also sought to find out why the environmental crisis is on the rise in Chuka Igambang'ombe Sub-County, despite the Catholic Church's efforts in addressing the environmental crisis.

2.2 Role of the Catholic Church in Addressing Environmental Crisis

To assess the role of the Catholic Church in addressing environmental crises, it was essential to draw upon the insights from *Christian Theology and Environmental Responsibility* (Mugambi & Vahakangas, 2001). This book examined the theological perspective on the Church's responsibility in environmental stewardship. It discussed

how Christian principles, when applied, can contribute to addressing environmental challenges. This resource was used to evaluate the Church's role within our specific sub-county context.

Furthermore, *The Environmental Crisis: A Challenge for African Christianity* (Gitau, 2000) underscores the importance of recognizing the Church as a potential force for change in environmental conservation. It discussed how religious institutions, including the Catholic Church, have the capacity to influence environmental policies and practices. This book insighted into the broader role of religion in addressing environmental crises and guided our analysis of the Church's impact in Chuka Igambang'ombe Sub-County.

The current ecological crisis, often referred to as the pressing environmental concern of our time, continues to raise concerns regarding environmental care (Smith, 2018). In *Laudato Si'* (Francis, 2015), Pope Francis refers to "Our Common Home," and scholars and specialists from a variety of professions, including policy makers, theologians, environmentalists, historians, and ecologists, are actively involved in meditations on how to care for it. Within this discourse, the Church holds a special role in imparting the moral imperative of environmental stewardship among the faithful (Johnson, 2016). However, fulfilling this role necessitates that the Church adeptly reads the signs of the times, allowing it to seek answers to the crisis not only within traditional Church teachings but also through an examination of day-to-day experiences within its existing spaces and structures (Gomez, 2009). It is important to note that the Church has not been indifferent to the ecological crisis (Muwesi & Mwerakande, 2005), yet in an era marked by environmental challenges, religious spaces have the potential to further leverage the available systems within the Church. This research sought to investigate the effectiveness of these available structures and systems in promoting environmental conservation within Chuka Igambang'ombe Sub-County. "Taking care of the environment is a challenge that faces all of humanity. Respecting the common good is a universal and shared responsibility (Berry, 2000). Since all beings are interdependent within the universal order established by the creator, every individual and institution must accept responsibility that must mature based on the global dimension of the current ecological crisis and the consequent necessity to meet it on a worldwide level (Taylor, 2019). All living things rely on the

same global ecology, which is made up of numerous independent but interconnected systems that supply water, food, air, and other necessities. The planetary commons, comprising those shared resources, are easily exploited when we fail to recognize the interconnected nature of God's creation. Therefore, common effort is required to preserve God's gift to us (McFague, 1993).

In addition to reminding people of their responsibility to preserve the environment, the Church works to prevent humanity from destroying itself. Global warming is an issue that has significant effects on the environment, society, economy, and politics. It also has an impact on how goods are distributed. It stands for one of the main issues that humanity is currently experiencing. Because "creation is the beginning and the foundation of all God's work," and because preserving it is crucial to ensuring that humans can coexist peacefully, respect for creation is extremely important (Lovelock, 2006). Since the earth, water, and air are gifts from God that are meant for everyone, the Church believes that it is her duty to conserve creation in public life (Berry, 2000). Its primary goal is to protect humanity from the threat of self-destruction (Taylor, 2019). This study examined if Chuka Igambang'ombe Sub-County's Church is carrying out this obligation.

The Church faces its own set of challenges and limitations in advocating for environmental conservation. Within the Church community, influential and respected individuals often have ties to institutions and companies that profit from environmental issues. These individuals may resist the Church's efforts to address environmental problems that affect their interests. To fulfill its prophetic mission of spiritual and environmental salvation, the Church must confront these vested interests and take a firm stance against environmental destruction, human rights abuses, and the exploitation of natural resources, all of which contribute to the impoverishment of communities (Owusu, 2010). Meanwhile, Nyaga (2012) explored the role of Muslims in Kwale District in environmental conservation, highlighting the different belief systems and approaches compared to the Catholic Church. This research sought to understand why environmental crisis persist in Chuka Igambang'ombe Sub-County despite the Catholic Church's teachings on environmental conservation, focusing on objectives related to the Church's role and the economic and natural factors hindering conservation efforts in the Digo Muslim community, distinct from the objectives of

this study. Additionally, Johnson (2017) examined the challenges faced by religious institutions when advocating for environmental conservation, shedding light on the complexities involved in addressing environmental issues within faith-based communities.

In addition, Pope Benedict XVI argues in his letter, “the source of life is caring” that the Catholic Church has a role to play in conserving and caring for God’s creation. He also emphasizes on Church’s responsibility towards protecting the earth and its content as it is a gift God gave to all. It is the responsibility of the Church to educate the Christians on environmental stewardship which has taken a silent role to solve (Benedict, 2010). This research tried to find out the effectiveness of environmental stewardship in the Catholic Church in Chuka Igambang’ombe Sub-County.

The Catholic Church declares at the outset of the Creed that there is only one God, who created heaven and earth. That Creator is depicted as good—indeed, as the one good that is entire and perfect—in contrast to those found in the paganisms of antiquity. Scripture's opening pages likewise stress that the Creator "saw that it was good" as he looked at his creation (Gen. 1:4; 1:10; 1:12; 1:18; 1:21; 1:25). Of all the excellent things that God has created, humankind is the one that completes the created order to the point where God declares it to be "very good" (Gen. 1:31). This is further supported by the Catholic Church Catechism, which states: "The inspired account expresses that man is the summit of the Creator's work by clearly distinguishing his creation from that of the other creatures." According to Francis (2014), humans are defined as members of that creation, uniquely made in the image and likeness of God, and gifted with the capacity for free will and reason. In addition to Francis, theologians like (Berry, 2016) have explored the theological significance of environmental stewardship within the Catholic tradition. Furthermore, scholars such as (White, 1967) have contributed to the discussion by examining the historical and religious roots of humanity's relationship with the environment. This research aimed to enlighten Christians on the importance of following Catholic teachings to conserve the environment. The study sought to investigate why Christians in the Catholic Church are not adequately utilizing the gifts of reason which was bestowed upon them by God to formulate strategies for environmental conservation in Chuka Igambang’ombe Sub-County.

From the beginning, two major tenets of the Catholic narrative have been caring for the environment and the underprivileged. Pope Francis, along with St. Paul II and Pope Emeritus Benedict XVI, have underscored the need of Catholics acting quickly on climate change in recent years (Francis, 2015). The U.S. Bishops have been pressing for action from as far back as 1981. According to Catholic teachings, climate change poses a serious moral threat to our commitments to uphold the following principles: to protect human life, health, dignity, and security; to give the poor preference; to advance the common good, of which we are all a part; to live in solidarity with future generations; to achieve peace; and to protect God's priceless creation (Catholic Charities, 2021). Theologians like Berry (1999) and Johnson (2016) have explored the ethical and theological dimensions of environmental stewardship within the Catholic tradition. This research aimed at shedding light on the importance of aligning with Catholic teachings to conserve the environment. The study sought to investigate why Catholics in the Chuka Igambang'ombe Sub-County are not fully harnessing the moral imperatives and ethical principles provided by their faith to develop strategies for environmental conservation.

A fundamental tenet of the Catholic faith is social teaching. The corpus of Church teaching that explains how Catholics are required to share and embody the gospel in order to change the world (Benedict XVI, 2005; United States Conference of Catholic Bishops [USCCB], 2019). Numerous Church figures have expressed modern Catholic social teaching. For pastors, fellow parishioners, and anyone else interested in learning more about the relationship between Catholic doctrine and climate change, the United States Catholic Bishops offer an extensive summary that is a useful resource (USCCB, 2019). Four of the seven themes of Catholic social teachings are particularly important in the context of climate change, according to the United States Conference of Catholic Bishops.

"Life and Dignity of the Human Person" (Vatican II, 1965) is the first theme. All of the tenets of Catholic social teaching are based on the Church's proclamation that human dignity is the cornerstone of a moral vision for society. Scarcity of food and water, migration due to climate change, and an increase in the frequency of extreme weather events are just a few of the terrible effects of climate change that threaten human life and dignity. Addressing climate change is essential to upholding the

Catholic principle of preserving human life and dignity (Francis, 2015; Benedict XVI, 2005). How our most vulnerable members are doing serves as a fundamental moral litmus test (Benedict XVI, 2005). Sadly, the impoverished and vulnerable are disproportionately affected by the effects of climate change. When rainfall patterns shift, those living in poverty lack the means to construct new irrigation systems. Because the impoverished are frequently the ones who contribute the least to the causes of climate change, this is especially unfair. We must confront climate change if we are to live up to the Catholic ideal of helping the impoverished and vulnerable (Francis, 2015; Benedict XVI, 2005). "Mugambi (1989) asserts that there are several moving parts at the junction between environmental responsibility and faith. Mbiti (2000) further underscores this complexity by highlighting the multifaceted relationship between religious teachings and environmental practices. However, both scholars omitted a critical analysis of the gap between these teachings and their actual implementation a gap this study delved into.

The United States Catholic Bishop Conference (USCCB) proclaimed in November 1991 that the tradition of Catholic social teachings provides a unique perspective on environmental concerns, offering a foundation for dialogue with scientific, environmental, and interfaith communities (USCCB, 1991). Despite these robust social teachings within the Catholic Church, there appears to be a disconnect in their effective implementation among the faithful. This research was set out to uncover the underlying reasons behind the limited effectiveness of these teachings within the Catholic Church in Chuka Igambang'ombe Sub-County.

Ongong'a (1996) asserts that humanity's role is that of stewards, entrusted with the care of the world by the Divine. He emphasizes that humans are mere tenants on Earth, with God as the ultimate Landlord of creation. In line with this perspective, Christians are called not to exploit the Earth but to embrace their stewardship role as ordained by God. Notably, the Catholic Church champions the idea of Christian stewardship for environmental protection. This study embarked on an exploration of whether the Church has actively translated this concept into meaningful action concerning environmental stewardship within the specific context of Chuka Igambang'ombe Sub-County.

"The words "fill the earth and subdue it" (Genesis 1:28) appear on the first page of the sacred scripture. These words teach us that everything in the world has been entrusted to him, and he has the responsibility to use his intellect and labor to improve and perfect it for his own use. Consequently, every man has a right to obtain from the earth what is necessary for him if it was made to provide people with the tools of progress or the necessities of subsistence. The second ecumenical radical council has reminded this in these words: God destined the earth with all that it contains for the use of all that it contains for the use of all men and nations, in such a way that created things in fair share should accrue to all men under the leadership of justice with charity as a companion (Francis, 2014).

God gave us creation as a gift, a present, and a wonderful gift so that we may use it and be grateful for it forever, treating it with respect and for the good of all. This is what happens when humans destroy hope, ideals, cultures, and creation. How much we need the Lord's power to halt this insane rush toward disaster and his strength to enclose us in his love! Destroying the most exquisite things he has done for us, what he has given us, so that we can keep them alive and grow them to produce fruit (Francis, 2014). Research has been done to show how God has blessed us by giving us the environment which is the best gift to take care of. Instead, human beings are destroying nature. This research examined whether the Catholic Church show clear ways on how the Catholic Christians care for the environment and what measures they should put in place to avoid being destructive and this is what this research intended to find out.

Okullu (1974) argues that the Catholic Church is of paramount importance because it serves as society's conscience. He contends that the destruction of natural resources and environmental contamination pose significant threats to humanity's existence. Okullu emphasizes that if the Catholic Church remains indifferent while vital forests like Mt. Kenya, Mau Forest, or Aberdare Forest are being destroyed for farming, illegal logging, charcoal burning, or unchecked industrialization without proper environmental assessments, it falls short of fulfilling its divine mandate as the conscience of society. In contrast, Smith emphasizes the role of the Catholic Church in raising awareness about environmental issues (Smith, 2000). He posits that the Church leaders preach a "green gospel," condemning the abuse of nature for its

adverse effects on both non-human and human populations. Dr. Smith further underscores that the Catholic Church in Kenya has been vocal in condemning the state's role in environmental destruction. Martinez (2005) underscores the importance of the Catholic Church's active involvement in environmental conservation. He highlights that the Church has consistently addressed issues related to climate change, ozone-depleting emissions, and advocated for environmental conservation in various forums, including seminars, workshops, retreats, conferences, and especially in Sunday sermons. According to (Martinez, 2005) the Catholic Church educates its members that humans must act responsibly as Earth's stewards, entrusted by God to care for the Earth and her resources. The pursuit of justice and peace lies at the heart of the virtue of solidarity. The idea that we are all God's children is the foundation of the Catholic perspective on justice. We all share the earth as brothers and sisters, so we should try to reduce our disproportionate impact on climate change. Preserving its intricately balanced systems and resources for future generations entails sharing it with our offspring and grandkids (Monaster, 2016).

Taking care of the environment is not merely a slogan for Earth Day; it is a requirement of our faith. We are expected to live out our faith in harmony with all that God has created, protecting both people and the environment. It is impossible to overlook the fundamental moral and ethical aspects of this environmental crisis. God's creation is truly changing due to climate change. Our mission to preserve and develop the globe is threatened by melting glaciers, increasing sea levels, and the extinction of species. As servant leaders, it is our duty to preserve creation, just as we would a lovely garden. We must confront climate change if we are to uphold the Catholic goal of protecting God's creation (Monastery, 2016).

Previous studies on the Church's role in environmental conservation have drawn insights from various scholars, including Thomas Berry (1999), who emphasized the theological significance of environmental stewardship within the Catholic tradition. Berry's work has been influential in shaping the discourse around the Church's ecological responsibilities. Additionally, Pope Francis (2015), in his encyclical *Laudato Si: On care for our common home*, articulated a profound moral and ethical framework for addressing environmental challenges, making a substantial impact on contemporary discussions of the Church's environmental engagement. This

current study sought to build upon these scholarly foundations by examining how these principles and teachings translated into real-world practices within Chuka Igambang'ombe Sub-County. By doing so, this research aimed at offering a nuanced understanding of the Church's role in addressing environmental crisis while considering the practical implications of these scholars' perspectives in a specific context.

Environmental measures employed by the Catholic Church in addressing environmental crises are informed by both theological principles and practical actions. Mugambi and Vahakangas (2001) emphasize in "Christian Theology and Environmental Responsibility" the importance of the Church's role in promoting ecological stewardship. One of the measures employed is the integration of environmental education within religious teachings. This approach aligns with the belief that environmental responsibility is a moral duty, reflecting God's command to care for His creation. The Church often incorporated environmental themes into its sermons, Sunday school teachings, and publications, raising awareness and fostering a sense of responsibility among its members.

Another measure is the implementation of sustainable practices within Church operations. This involves reducing the carbon footprint of religious institutions. In "The Environmental Crisis: A Challenge for African Christianity" (Gitau, 2000), the authors discuss how African churches, including the Catholic Church, have taken steps to reduce energy consumption, adopt eco-friendly construction materials, and establish community-based initiatives to address environmental challenges. These actions not only serve as practical examples but also demonstrated the Church's commitment to environmental conservation.

Additionally, the Catholic Church's involvement in advocacy and community-based projects is a crucial measure. Mugambi's "God, Humanity and Nature" (1987) highlights the Church's engagement in environmental initiatives that benefit the wider community. These may include afforestation projects, clean water initiatives, and advocating for sustainable land use policies. Through such endeavors, the Catholic Church contributes to the improvement of the environment while also addressing the needs of the marginalized and vulnerable populations, which aligns with the principles of liberation theology.

The Catholic Church promotes songwriting about the environment. These songs use nature as a worship element. These hymns, sung by the parishioners, raise awareness of the value of preserving and safeguarding the environment. Consequently, this kind of encounter shapes the moral obligation to revere and protect the natural world (Irwin, 1996). According to Pope Francis' Encyclical *Laudato Si*, "in order to hear the cry of the earth and the cry of the poor, we cannot fail to recognize that a true ecological approach which must integrate questions of justice into discussions about environment." According to him, our relationships with God, other people, and the environment are inextricably linked. Pope Francis continues, "In the creation story found in the book of Genesis, God made us overseers of His creation. Living our vocation to be protectors of God's handwork is essential to a life of virtue; it is not an optional or a secondary aspect of our Christian experience." He charged us with tending to the garden and tilling it (Gen 2:15). Some misunderstand the message to imply that they have permission to use everything on earth and in whatever way they like. But people's innate avarice prevented God from intending this in the first place. Once more, Pope Francis stresses in his Encyclical that when we encounter Christ Jesus, we should live in harmony with the world around us. It should not be spiritual change only but also our perceptions towards nature (Southern African Catholic Bishops' Conference [SACBC], 2021).

The publication of a recent report by the Intergovernmental group on Climate Change (IPCC), an international group on climate change, on March 31, the eve of Lent, is noteworthy for this reason. The impact of climate change, adaptation strategies, and an evaluation of the vulnerability of social-economic, environmental, and community systems are the main topics of this paper. The implications of climate change are described in this paper along with a detailed analysis and a warning that things will get worse in the twenty-first century. The poor countries in the south will suffer more from climate change while being faced with food insecurity, lack of access to water, displacement and increased conflicts. The IPCC report is important for the Churches, who are witnessing effects of climate change on communities, making climate justice a priority in the pastoral plans. A climate justice minute was adopted at the 10th Assembly of the World Council of Climate (WCC) in South Korea last year, reflecting the importance of the issue. It called on churches and ecumenical organizations to urge governments to protect and advance the basic human rights of

those who are threatened by climate change, and to look beyond national interest in order to be responsible towards God's creation and our shared future (WCC, 2014).

Pope Francis' teachings on environmental awareness and the Vatican's call for the faithful to adopt appropriate lifestyles have played a significant role in addressing the ecological crisis facing the world (Francis, 2020). In addition to Pope Francis, several other scholars have contributed to the discourse on environmental stewardship within the Catholic faith. For instance, Thomas Berry, a renowned Catholic theologian, emphasized the importance of recognizing the spiritual dimension of the environment and advocated for an ecological worldview (Berry, 1999). Another scholar, Elizabeth Johnson, in her work on Eco theology, highlighted the interconnectedness of all life forms and underscored the ethical responsibility of Christians to protect the environment (Johnson, 2000). Furthermore, Mary Evelyn Tucker, through her research and advocacy, has encouraged the integration of science and religion in addressing environmental challenges, promoting a more holistic approach to ecological sustainability (Tucker, 2006).

The Catholic Church today, from the Vatican to the U.S conference on Catholic bishops to individual parishes in communities across the country, works to increase awareness about climate change and its risks among lay Catholics; educate individuals, Churches, Schools, Religious Colleges and Universities and other Catholic institutions about how to cut energy use and live more sustainably and advocate in support of legislative action by state government, the U.S congress and the U.N. A framework treaty to reduce carbon emissions related to climate change. However, the leaders of the Catholic Church have adopted a firm stance on the matter, presenting the problem of climate change in terms that are both unique to Catholicism and widely understood by people of other religions. The Church maintains that reducing carbon emissions is fundamentally more important (Lieberman, 2012).

Pope Francis in his papal letter to Catholics set up “World Day of Prayer for Care of Creation” this was meant to bring to the attention the role of planet earth to mankind. The day is observed in every diocese by the Catholics all over the world, and it gives every Catholics an opportunity to play part for the well-being of nature. He emphasized on the urgency of addressing climate change and soaring levels of

greenhouse gas emissions-backing effort to secure a global emission cutting deal later year (Francis, 2015).

In a papal encyclical letter on Thursday, Pope Francis urged the 1.2 billion Catholics worldwide to join the fight against climate change, stating that the science behind it is undeniable and that the Catholic Church sees it as a moral issue that needs to be addressed in order to protect the planet and all living things on it. In his encyclical, Pope Francis emphasizes the moral need for swift action on climate change in order to defend development, uplift the most vulnerable communities on the earth, and promote responsible progress. The economic imperative and the clarion cry should steer the world toward a robust and long-lasting universal climate deal in Paris at the end of this year, making it clear that we must act on climate change now (Francis 2015).

Today the Laudato Si' movement is a Catholic movement made up of more than 800 organizations and thousands of Laudato Si animators around the world. The mission of the movement is to inspire and mobilize the Catholic community to care for our common home and to achieve climate and ecological justice. It acknowledges the ever-worsening cries of the earth and for the poor and the interconnection of environmental, social and peace issues. Laudato Si' aims at taking care of the earth and the poor inflamed by the sense of justice but also by the theology and spirituality of this gospel of creation (Francis, 2021). Although this movement was supposed to address the cries of nature its efforts on the ground have very little impact.

2.3 The Biblical and Theological Justification of Church's Involvement in Environment Conservation

Evaluating the biblical and theological justifications for the Church's involvement in environmental conservation requires a deep dive into "God, Humanity and Nature" (Mugambi, 1987). This book explores the theological foundations for environmental conservation within a Christian context. It delves into scriptural support for ecological stewardship and how these principles align with the teachings of the Catholic Church. By drawing from this source, we can establish a robust theological basis for the Church's commitment to environmental conservation within our specific sub-county.

Pope Francis, the Catholic Church, and Catholics around the world have taken significant actions to address climate change and environmental issues. Pope Francis, in particular, has played a prominent role in raising awareness about the interconnectedness of all aspects of life and the importance of environmental stewardship. His 2015 encyclical letter, *Laudato Si'*, provided valuable guidance for the Catholic community, emphasizing the need to protect and preserve the Earth as it sustains humanity (Francis, 2015). This aligns with the teachings of scholars like Berry (1999), who explored the theological significance of environmental stewardship within the Catholic tradition.

Moreover, theologians like Richard Bauckham (2010) have explored the biblical foundations of environmental ethics, shedding light on the scriptural mandates for caring for the environment. Bauckham's work underscores the importance of aligning the Church's actions with its biblical teachings. While these scholars have provided invaluable insights, previous studies may not have fully integrated their perspectives into their assessments of the Church's actual impact on environmental conservation at the local level.

Major Christian denominations, not limited to the Catholic Church, share a common belief in the biblical call for stewardship of God's creation and the responsibility to care for it. However, it's worth noting that some church policies on environmental issues may be relatively recent and not universally followed by all parishioners. Research in the social sciences has shown that conservative Christians and members of the Christian right are sometimes less concerned about environmentalism compared to the general public. Additionally, some fundamentalist Christians may deny the realities of global warming and climate change (Sherkat & Ellison, 2007). This highlighted the diversity of views within Christian communities regarding environmental issues.

This research aimed at exploring the extent to which environmental issues are prioritized in the day-to-day lives of Christians in Chuka Igambang'ombe Sub-County, going beyond theological principles to examine practical attitudes and actions related to environmental stewardship within the community. By investigating the local perspective, this study added depth to the understanding of how religious

teachings translate into real-world practices, complementing the work of scholars who have examined the global and theological aspects of environmental stewardship.

Pope Francis issued an encyclical called "Laudato Si, be praised, on the care of our common home" that the Roman Catholic Church hopes would encourage everyone, not just Catholics, to preserve the environment. He has spoken for Christian ecology on multiple occasions and supports climate action. "Be mindful of the creation. Saint Francis cautioned that while nature never forgets, people do (Francis, 2013). If we don't take care of the environment, there will be no turning back. The purpose of this study was to determine whether Christians in Chuka Igambang'ombe Sub-County are aware of the risks associated with environmental degradation.

The average family in Western Europe in 1700 lived in a home with little to no furniture, no clean clothes, and barely enough food to sustain a few hours of agricultural labor per day. They also lacked electricity, plumbing, water, sewage treatment, and other appliances that we often take for granted. Today, however, the average family lives in a well-built home with all those amenities, along with enough food that even among the poor, obesity is more common than hunger (William, 1995). Famine, which once occurred on average seven times per century in Western Europe, is no longer heard of there. The greatest of these advancements have been in freedom, knowledge, and manual labor, all of which are largely based on the worldview and ethic of service to God and neighbor found in biblical Christianity (Beisner, 1988). These developments have also led to a commendable increase in public awareness of the importance of environmental stewardship. For people come to feel more secure about their basic needs, they began to allocate more of this scarce time, energy, and resources to attaining formerly less urgent ends. Consequently, the moment for environmental protection has grown as western wealth has grown, giving rise to a strong environmental consciousness and protection of environmental legislation (William, 1995).

God, the creator of all things, rules overall and deserves our worship and adoration (Ps 103:19-22). The earth and with it, all the cosmos, reveals its creator's wisdom and goodness (Ps.19:1-6). According to Gen 1: 26-28 and psalms 8: 5, human beings is created in the image of God. The man has also been accorded a privileged position over other creation. That is, stewardship role over the earth has been bestowed on him

(Action Institute, 2021). This research investigated whether the Church is embracing Biblical stewardship in their teachings in Chuka Igambang'ombe Sub-County.

The implication of human stewardship role is that we are morally accountable to God regarding our treatment on creation to serve God's original objective. However, this moral accountability and dominion over His creation depend on the freedom to choose. Humankind has been subjected to separation from God and death as judgement for our sinfulness. Also, sin has made God to respond through subjecting creation to curse of futility and corruption. Gen 2:15 man was given the responsibility by God to cultivate and guard the land. Luke 9:10-17 Jesus ordered the disciples to collect the food that remained after feeding the 5000 men. This signified that Jesus valued and cared for the environment since He did not leave it littered. Romans 8:20-21 creation was subjected to curse by God though with an expectation of hope. Though there is hope of one day enjoy freedom from slavery or bondage, creation is doomed to die and decay (Action Institute, 2021).

Most of the Psalms, including Psalms 8, 104, and 148, confirm the goodness of creation and shed further light on our relationship with the natural world. Terence Fretheim, for instance, claims that numerous Psalms demonstrate that God is present in nature and directly involved in all facets of the natural order (Fretheim, 1987). The New Testament writings, including Romans 8:18-25, Colossians 1:15-23, 1 Corinthians 15:20-28, and Ephesians 1:10, demonstrate how the redemptive power of Christ impacts the entire creation. Paul's broad vision of the "liberation of all creatures of nature, along with human beings" via Christ's death is seen in this text from the book of Romans.

Colossians 1:15-23 also claims that all things will be reconciled through Christ (Bunge, 1991). This research investigated redemptive measures that the Catholic Church is putting in place to save environment from degradation in Chuka Igambang'ombe Sub-County.

In the mid-1980s, Patrick Moore, one of the founders of "Greenpeace International," suggested that the environmental movement had abandoned logic and science in favor of political agendas more concerned with class conflict and anti-corporatism than with the science itself. As we've already discussed, Moore was correct in his criticism of the movement, to which he made a significant early contribution. All too frequently,

contemporary environmentalism has turned against reason, economic progress, human rights, and freedom. Now is the moment to break this pattern (Moore, 1999).

Our belief is that healthy environmental stewardship celebrates and promotes human life, freedom, and economic progress as compatible with, if not essential for, the good of the entire environment. This belief is based on a biblical worldview and ethics, as well as on sound science, economics, and policy principles. Although we do not completely reject collective action, we generally think that market systems provide more effective ways to safeguard the environment, both in theory and in actual use. They are more likely to be economical and effective in accomplishing their goals, and they are less likely to undermine significant human liberties. Environmental policy must ultimately be guided by reason and a desire to “do justly, to love mercy, and to walk humbly with God” (Mic. 6:8), even as we acknowledge that passions may accelerate the quest of solid environmental policy (Moore, 1999).

From the literature review, Catholic Church in Chuka Igambang’ombe Sub- County which is in Tharaka Nithi County is participating in environmental conservation through tree planting, soil conservation, and campaigning against global climate change but environmental crisis has been on the rise. This research tends to find out why despite Church contribution in conserving environment, degradation has been on rise and what the Catholic Church can do to accomplish the goal of environmental conservation. It was also found out that the Church exercises its Biblical mandate on environmental conservation in Chuka Igambang’ombe Sub-County. This is the gap that the study filled by finding out why environmental crisis is on the rise despite the Church role in educating followers.

2.4 Theoretical Framework

This research used liberative solidarity theory whose proponent is Gustavo Gutierrez. The concept of theologies based on liberation began to emerge in the middle of the twentieth century, but the term “theology of liberation” was not used until Gustavo Gutierrez’s famous work, *A theology of liberation*, was published in 1971. According to Gutierrez, theology is a critical analysis of praxis, or a study of social practice as it relates to the Bible. Because of this concept, he was able to develop an ontological framework that required changes to Latin America's political and economic conditions by viewing the world through the eyes of the impoverished. Gutierrez

(2016) aimed to develop a theological framework that combined salvation and historical freedom. In this framework, earthly liberty becomes a crucial component of the metamorphosis required for redemption. According to Gutierrez, theological analysis is necessary to the degree that the Church and society carried out God's word. Theology must therefore be unique to the community and cultural setting in which it was developed. Theology must adapt to the times and the cultural context in which it is practiced; it must produce a new worldview that is consistent with the pertinent commitments of the Christian community (Gutierrez, 1988).

To enhance clarity and relevance, this section explicitly outlines the key tenets of Liberation Theology, demonstrate their connection to Liberation Solidarity Theory, and relate these to mitigating the environmental crisis. Liberation Theology, emerging in the mid-20th century, is characterized by its focus on the experiences of the poor and oppressed. Gustavo Gutierrez's seminal work, *A Theology of Liberation* (1971), defines theology as a critical reflection on social praxis in light of Scripture. This approach integrates historical liberation with salvation, emphasizing that earthly liberation is integral to spiritual salvation. Gutierrez argues that theology must be context-specific and responsive to the cultural and social realities of the time (Gutierrez, 1988).

Liberation Solidarity Theory extends these principles by focusing on solidarity with marginalized groups, advocating for transformative actions that address socio-economic and environmental injustices. This theory is not only concerned with human liberation but also with the liberation of nature from exploitation and degradation. The application of Liberation Solidarity Theory to the environmental crisis involves recognizing how human actions, driven by socio-economic inequalities, contribute to environmental degradation. Liberation Theology's emphasis on the lived experiences of the oppressed helps in understanding how marginalized communities are disproportionately affected by environmental issues. For instance, the exploitation of natural resources often affects the poorest communities the most, reflecting a need for solidarity in addressing environmental justice.

While Liberation Theology, as articulated by Gutierrez, provides a foundational framework, eco-theology offers complementary insights. Scholars like Pope Francis and Thomas Berry emphasize the spiritual and moral dimensions of environmental

conservation. Pope Francis's encyclical *Laudato Si'* (2015) underscores the Church's role in environmental stewardship, aligning with Liberation Theology's call for action against oppression, but focusing more on the spiritual connection between humans and nature. Similarly, Thomas Berry's work, *The Dream of the Earth* (1988), advocates for a holistic, ecological consciousness that resonates with the liberative aspect of Liberation Theology. Despite the theoretical grounding provided by Liberation Solidarity Theory, there remains a gap in directly connecting Gutierrez's work with contemporary environmental issues. Recent studies and theoretical developments in eco-theology could enrich this framework by providing updated perspectives on how liberation principles can be applied to current environmental crises.

As many Latin American nations started to free themselves from the harsh political and economic systems that had emerged during the continent's independence, liberation theology flourished there over all other places. With its evolving foundation, real-world applications, and end objectives, this theological perspective has come to stand out. Catholic theologies often start with the gospel and use the Bible and Catholic Church tradition to interpret experience. On the other hand, liberation theology starts with the lived experiences of people, particularly the most vulnerable and impoverished, and considers the gospel within the framework of their lived realities Gutierrez (1988).

A Roman Catholic priest, Gustavo Gutierrez, a Peruvian theologian, introduced the term Liberation Theology in his work "A Theology of Liberation: History, Politics, and Salvation" (Gutierrez, 1971). Another influential scholar in the field is Leonardo Boff, a Brazilian theologian, known for his work "Ecology and Liberation: A New Paradigm" (Boff, 1997), where he has contributed to the development of Eco theology, emphasizing the interconnectedness of liberation theology and environmental concerns. Additionally, Mary Daly, an American feminist theologian, explored the intersections of theology, liberation, and gender in her book "Beyond God the Father: Toward a Philosophy of Women's Liberation" (Daly, 1973), advocating for a feminist perspective within theological discourse.

Human beings are the main oppressors of nature, a behavior which has been attributed to humanity's relationship with the environment. Therefore, nature is crying out for

liberation from the many human activities being imposed upon it in the name of development and progress. The Church has a significant role to play in addressing the environmental crisis more aggressively to liberate nature from various oppressions. Scholars such as Pope Francis, through his encyclical "Laudato Si'" (Francis, 2015), have highlighted the importance of the Church's involvement in environmental conservation and the moral responsibility of Christians. Additionally, Thomas Berry, a prominent eco-theologian, emphasized the need for a spiritual connection with nature and advocated for ecological consciousness in his work "The Dream of the Earth" (Berry, 1988).

The liberative solidarity theory, rooted in the theological framework of Liberation Theology, was employed as a foundational tool for analyzing data in this research. Gustavo Gutierrez, the proponent of this model, played a pivotal role in shaping the theoretical underpinnings. Liberation Theology emerged as a concept in the mid-20th century, with Gutierrez's work, "A Theology of Liberation" (1971), being a seminal contribution. Within this theological framework, Gutierrez defined theology as a critical reflection on social practice in light of scripture. This definition guided the development of an ontological system that centered on the perspective of the poor and aimed at transforming the political and economic landscape of Latin America (Gutierrez, 2016). Liberation on Earth was deemed essential for salvation, and theological reflection was expected to be context-specific and culturally relevant. The theology adapted and evolved over time to meet the changing needs and cultural contexts of the Christian community (Gutierrez, 1988).

Scholars like (Gutierrez, 1971) played pivotal roles in the significant theological movement known as liberation theology, which found its most profound application in the context of Latin America. Unlike traditional Catholic theology, which typically begins with the gospel and interprets experience in the light of the word of God and Catholic Church tradition, liberation theology diverges by commencing with the lived experiences of the marginalized and vulnerable populations. Scholars such as (Gutierrez, 1988) have championed this unique approach to theology, seeking to understand the gospel through the lens of these experiences. This emphasis on contextual understanding and social justice in theological discourse is a hallmark of liberation theology in Latin America.

In the context of this research, the liberative solidarity theory, influenced by Liberation Theology, provided a framework for analyzing data in a way that prioritized the experiences and perspectives of marginalized communities. This approach aimed to shed light on the lived realities of those most affected by environmental injustices and served as a tool to guide the research towards a more holistic understanding of the intersection between theology, liberation, and environmental concerns. As scholars like Pope Francis, Gustavo Gutierrez, and others have emphasized, liberation extends beyond human beings to encompass the liberation of nature itself. This research recognized the urgent need to address environmental crises and emphasized the role of the Church in liberating nature from various forms of oppression. By drawing from the Eco theological insights of scholars like Thomas Berry, who advocated for a spiritual connection with nature and ecological consciousness, the research aimed to contribute to the ongoing discourse on environmental conservation and the moral responsibilities of individuals and communities (Berry, 1988).

CHAPTER THREE METHODOLOGY

3.1 Location of the Study

This research was conducted in Chuka Igambang'ombe Sub-County, which encompasses several Catholic parishes, including St. Peter Kajuki, Chuka, Ndagani, Chera, Magumoni, Mbwiru, Mariani, Kathwana, Kanyaki, and Mbukoni parishes. The Catholic Church was selected for the study due to its active participation in environmental conservation measures, specifically its programs promoting environmental stewardship.

Chuka Igambang'ombe Sub-County was scientifically chosen because it exhibits significant environmental degradation compared to other sub-counties in Tharaka Nithi County. This includes recurrent droughts and famines, leading to critical water shortages. For instance, major rivers such as Naka dry up completely during dry spells, while other rivers, like Ruguti, experience reduced water levels, nearing total depletion. These water bodies are vital sources of water for both the community and agriculture in the area (Smucker & Wisner, 2008).

Additionally, Chuka Igambang'ombe is particularly vulnerable due to high temperatures that exacerbate environmental stress, making it an ideal area to study the intersection of climate impact and human activity. The county was selected among the 47 nationwide due to the prevalence of unsustainable agricultural practices such as land burning, excessive use of fertilizers, herbicides, and pesticides. These practices degrade the soil's natural composition and disrupt air quality, contributing to the sub-county's severe environmental crisis (Muriithi, 2003).

This sub-county's unique environmental challenges, coupled with the Catholic Church's role in implementing conservation programs, make it a scientifically significant area for studying the Church's contribution to addressing environmental issues. For a visual representation of the research area, refer to the map in Appendix V.

3.2 Research Design

The study adopted a descriptive survey research design, which enabled the researcher to collect both quantitative and qualitative data. This approach aimed at evaluating the contribution of the Catholic Church in addressing the environmental crisis in Chuka Igambang'ombe Sub-County, Kenya. The design, as recommended by Mugenda and

Mugenda (1999) and Kothari (2004), was considered suitable for understanding social phenomena, particularly in examining the role of institutions such as the Church in community matters.

The justification for the choice of the descriptive survey design was based on the study's objectives. Specifically, the first objective sought to identify the causes of environmental degradation within the sub-county. To achieve this, the design facilitated a structured and systematic approach of data collection from multiple stakeholders, ensuring that a broad range of perspectives was captured. According to Kothari (2004), the design allowed for the identification of various causes of environmental degradation through the use of structured questionnaires and semi-structured interviews.

For the second objective, which aimed at evaluating the Church's role in environmental crisis management, the survey design provided a suitable framework for assessing contributions from diverse groups, including Catholic Church members, community leaders, environmental experts, and local residents. The structured nature of the design, following the recommendations of Mugenda and Mugenda (1999) and Kothari (2004), ensured objectivity by using standardized questions to reduce bias and enable consistent comparisons across different respondent groups.

In the execution of this research design, a multistage approach was employed to collect both quantitative and qualitative data. Primary data collection was conducted through structured questionnaires and semi-structured interviews. The questionnaires were administered to 379 respondents, who included Catholic Church members and residents of Chuka Igambang'ombe Sub-County. These questionnaires featured a combination of closed- and open-ended questions, which allowed respondents to provide in-depth information regarding the causes of environmental degradation as well as the role of the Church in addressing these issues.

Additionally, semi-structured interviews were conducted with 10 key informants, comprising the priests in the 10 parishes. The interview guide was designed based on critical themes that had emerged from the literature review, such as environmental stewardship, community engagement, and the Church's advocacy role. This method of data collection facilitated a more nuanced understanding of the Church's

contribution to environmental management within the community. Secondary data collection involved sourcing relevant information from books, journals, and online resources. These sources included scholarly articles, government reports, and Church publications. The secondary data was then analyzed qualitatively, interpreted, and synthesized to supplement and support the findings derived from the primary data.

3.3 Target Population

According to Orodho (2012), a Target population is a large population from which a sample population is selected. The target population for this research included members from the priests, leaders of Catholic men and women groups among the catholic members from these parishes, youths and officials working with the Catholic Diocese development committee in the parishes within Chuka Igambang’ombe Sub-County. The Target population of the study in the 10 parishes was 15,574. They included the various organs in the Catholic Church such as Catholic Women Association (CWA) =7321, Catholic Men Association (CMA) =4285, Youth Association (YA) =3663 and the Catholic Parish Council (CPC) =265, the priests= 20 and the Development Committee (DC) = 20 at the diocese level (Church Records, 2022).

Table 1: A table Showing Total Population of CWA, CMA, YA, CPC, DC and Priests in.the 10 Parishes (Church Records, 2022).

Parish	CWA	CMA	YA	CPC	Priests In Charge	DC	Total
Chuka	945	455	400	15	2	2	1819
Kajuki	760	398	395	12	2	2	1569
Kathwana	400	264	300	9	2	2	977
Mariani	401	398	299	39	2	2	1340
Kanyaki	557	325	310	24	2	2	1220
Mbukoni	627	435	327	24	2	2	1417
Mbwiru	611	421	296	36	2	2	1368
Magumoni	1200	401	500	58	2	2	2383
Chera	721	456	436	36	2	2	1653
Ndagani	900	512	400	12	2	2	1823
Total							15574

3.4 Sampling Procedure and Sample Size

In this research, sampling was a critical process for selecting a subset of individuals from a larger population to ensure that the sample adequately represented the broader

group (Creswell, 2012). To achieve this, a combination of probability and non-probability sampling techniques was utilized: simple random sampling and purposive sampling. Each method served a distinct role in the research process.

Simple random sampling was used to ensure that every individual in the target population had an equal and independent chance of being included in the sample. This approach minimized bias and aimed to make the sample representative of the broader population. For the study, simple random sampling was applied to select Catholic parish council members. These members were chosen because of their involvement in parish activities and their potential knowledge of the Church's environmental conservation efforts. By using simple random sampling, the research ensured a broad and unbiased perspective from within the Catholic community regarding environmental issues.

On the other hand, purposive sampling was employed to deliberately select individuals who met specific predefined criteria essential to the research objectives. This method focused on identifying participants who had particular knowledge or involvement in the Catholic Church's environmental initiatives. The criteria for purposive sampling included priests and parish council members actively engaged in environmental conservation activities, development officials responsible for implementing and monitoring environmental programs within the Church, and community leaders and experts involved in local environmental management efforts. The use of purposive sampling allowed for the strategic selection of knowledgeable and relevant participants, thereby enriching the research findings with informed perspectives. Although purposive sampling introduces some level of intentional bias, it was chosen for its ability to gather valuable data from those most familiar with the subject matter. This approach provided contextually significant insights into the Church's role in addressing environmental challenges.

To determine the appropriate sample size for the study, the formula proposed by Yamane (1967) was utilized. This formula offered a systematic method for calculating a sample size that would adequately represent the population while accounting for research objectives and resource constraints. By applying this formula, the research ensured that the sample size was statistically reliable, thereby enhancing the validity and quality of the study's findings.

$$n = \frac{N}{1 + N(e)^2}$$

Where

n = sample size

N=Total population

e= Level of precision (5%).

N=15574 as indicated in Table 1 below:

Thus, the value of n is:

$$n = \frac{15574}{1 + 15574(0.05)^2} = 389$$

thus, the sample size is 389.

After getting the sample size, He suggested the following formula to tabulate target population in a particular population.

$$\frac{\text{total population in a particular group}}{\text{total population(N)}} \times \text{Sample size (n)}$$

E.g. Population of CWA in Chuka is:

$$\frac{945}{15574} \times 389 = 24$$

Table 2: A Table Showing Sampled Population of CWA, CMA, YA, DO and Priest in Charge from the 10 Sampled Parishes (Church Records, 2022).

Parish	CWA	CMA	YA	CPC	Priests in Charge	DO	Total
Chuka	24	11	9	1	1	1	47
Kajuki	18	9	9	1	1	1	39
Kathwana	9	6	7	1	1	1	25
Mariani	10	10	7	1	1	1	35
Kanyaki	14	8	7	1	1	1	32
Mbukoni	15	10	8	1	1	1	36
Mbwiru	15	10	7	1	1	1	35
Magumoni	30	10	12	1	1	1	60
Chera	18	11	10	1	1	1	42
Ndagani	22	13	10	1	1	1	48
Total							389

A stratified random sampling method was used to select various target population which includes the CWA, CMA, YA, CPC and DO. These organs helped to get answers on why environmental crisis is on the rise in Chuka Igambang'ombe Sub-County. They also provided detailed information about the contribution of the Church

in addressing environmental crisis in Chuka Igambang'ombe Sub- County. The total subject of study was 15,574 respondents. The parish council members and development committee members were identified using simple random sampling and one member was picked to provide relevant information on the contribution of the Catholic Church in addressing environmental crisis in Chuka Igambang'ombe Sub-County.

3.5 Research Instruments

The research employed both primary and secondary sources of data. Secondary sources were chosen for their accessibility and the comprehensive information they provided, which is not typically attainable through individual efforts. The primary sources encompassed the use of questionnaires and interviews. Additionally, a descriptive method was employed to gather relevant data and literature from published sources, enhancing the depth and breadth of the research. It's worth noting that the researcher conducted comprehensive data gathering efforts by visiting various libraries. These libraries included St. Paul's, Catholic University, Nairobi, Kenya Methodist University (KEMU), Nyeri National Library, Karatina University Library, and Chuka University Library. The secondary data collected from these sources were compiled and analyzed to draw conclusive findings and generate recommendations for further research.

3.5.1 Questionnaires

Questionnaires both open ended and closed questionnaires were used to help the respondents provide information. Regarding the data collection process, questionnaires were distributed to various segments of the Catholic Church community within the specified Parishes. These segments included the Catholic Women's Association (CWA), Catholic Men's Association (CMA), Youth Association (YA), Parish Council (PC) and development officials. The total number of questionnaires distributed was 379, with each Parish and segment being represented. The questionnaires for the study were personally administered through a systematic process to ensure that the data collected was accurate and reflective of the respondents' genuine perspectives. This process involved several key steps:

First, trained research assistants or enumerators were responsible for administering the questionnaires. These individuals were selected based on their familiarity with the study's objectives and their ability to engage effectively with the respondents. Their training ensured that they could provide clear instructions and assistance if needed, thereby facilitating a smooth data collection process. The administration of the questionnaires took place during scheduled visits to the respective parishes within Chuka Igambang'ombe Sub-County. These visits were carefully planned and coordinated to align with the availability and schedules of the respondents. The research team made contact with parish leaders in advance to arrange appropriate times for the visits, ensuring that the process did not disrupt regular parish activities.

During each visit, the research assistants distributed the questionnaires to the respondents in person. This approach allowed the assistants to explain the purpose of the study, provide instructions on how to complete the questionnaires, and address any immediate questions or concerns. By being physically present, the research assistants could also verify that the questionnaires were filled out correctly and comprehensively. The in-person administration of the questionnaires was crucial for obtaining accurate and reliable responses. It allowed for immediate clarification of any ambiguities and ensured that the respondents had the opportunity to provide thoughtful and well-considered answers. Furthermore, this approach helped in maintaining a higher response rate, as it facilitated direct engagement with the participants and encouraged their active participation in the study. Overall, the personal administration of the questionnaires during visits to the parishes was designed to maximize the quality and reliability of the data collected, aligning with the study's objective to gather meaningful insights into the Catholic Church's role in addressing environmental issues in the region. The objective was to gather data directly from individuals involved in environmental conservation efforts within the Catholic Church community in Chuka Igambang'ombe Sub-County.

3.5.2 Oral Interviews

In the study, a total of 10 oral interviews were conducted with priests to gather in-depth information about the Catholic Church's involvement in environmental issues. These interviews were carried out in person at specific locations within the diocese, including diocesan offices and Church premises. The selection of respondents for

these interviews was guided by purposive sampling. This method was employed to ensure that the individuals interviewed were those with pertinent knowledge and experience related to the research focus. Criteria for selection included their roles within the Church, their involvement in environmental conservation activities, and their experience with community engagement on environmental matters.

The in-person interviews were strategically conducted in familiar settings such as diocesan offices and Church premises. These locations were chosen because they provided a comfortable and private environment for the respondents, encouraging them to share detailed and candid insights. The settings facilitated a more personal and interactive exchange between the researcher and the interviewees, which was crucial for exploring complex issues and gathering nuanced information.

During the interviews, the researcher delved into several critical areas. Firstly, the discussion covered the environmental stewardship practices of the Church. The priests shared information about the Church's initiatives and programs aimed at promoting environmental conservation, including specific activities and their impacts on the community. Secondly, the interviews explored community engagement strategies, examining how the Church interacts with local communities regarding environmental issues and any challenges or successes encountered in these efforts.

Additionally, the interviews addressed personal and institutional challenges faced by the Church in tackling environmental concerns. This included discussing obstacles such as resource limitations, resistance to change, and integrating environmental issues into Church teachings. Finally, the theological perspectives of the priests were examined, revealing how their faith influences their approach to environmental stewardship. The in-person nature of the interviews allowed for a thorough exploration of these complex topics, providing a rich, qualitative understanding of the Catholic Church's role in addressing environmental issues in Chuka Igambang'ombe Sub-County.

3.6 Data Collection Procedures

Before collecting any information for this research, the researcher sought clearance from the Ethics Board of Chuka University. Subsequently, with the assistance of Chuka University, a research permit was obtained from the National Commission for Science, Technology, and Innovation (NACOSTI). The data collection process

employed a qualitative approach, involving the scrutiny, analysis, synthesis, and inference of both primary and secondary data sources. Primary data was collected through questionnaires and oral interviews, with utmost confidentiality maintained throughout the process.

It's worth noting that the researcher conducted comprehensive data gathering efforts by visiting various libraries. These libraries included library at St. Paul's, library at Catholic University, library at Nairobi, library at KEMU, Nyeri National Library, Karatina University Library, and Chuka University Library. The primary and secondary data collected from these sources were compiled and analyzed to draw conclusive findings and generate recommendations for further research.

3.7 Data Analysis Procedure

In the study on the "Contribution of the Catholic Church in Addressing Environmental Crisis in Chuka Igambang'ombe Sub-County, Kenya," the data analysis procedure was methodically structured to ensure rigorous examination and accurate interpretation of the collected information. The analysis commenced with data editing, a crucial step to rectify errors and address any omissions that could compromise data integrity. This process involved reviewing and correcting the data entries to ensure accuracy, consistency, and completeness, which is essential for reliable results. Following editing, the data was coded. Coding involved labeling and organizing the data to identify emerging themes and relationships. This step was critical for converting qualitative data into a structured format, allowing for systematic analysis.

The next phase involved classifying the data based on predefined categories: the causes of environmental degradation, the contribution of the Church to environmental conservation, and the Biblical and theological justifications of the Church's involvement. This classification facilitated a focused analysis of each research objective. After classification, data tabulation was performed. Data was systematically organized into tables, pie charts, and percentages to summarize and present the findings clearly. The use of SPSS version 26.0 enabled the researcher to calculate percentages and generate statistical summaries, which were essential for identifying key trends and drawing conclusions. This structured approach to data analysis ensured

that the findings were based on a thorough and accurate examination of the collected data, thus supporting robust conclusions and recommendations.

3.8 Ethical Considerations

Before commencing this research, the researcher diligently sought and obtained permission from the relevant authorities, including the university. The necessary clearances were secured from the National Council for Science, Technology, and Innovation (NACOSTI). Throughout the research process, a strong emphasis was placed on maintaining a positive and respectful relationship with the respondents. The researcher ensured that the information collected remained confidential and that the privacy of the participants was upheld. In addition, prior to collecting any information, the research strictly followed ethical guidelines by seeking informed consent from all respondents. It's important to note that the research focused specifically on gathering information regarding the contribution of the Catholic Church in addressing the environmental crisis in Chuka Igambang'ombe Sub-County.

CHAPTER FOUR
CAUSES OF ENVIRONMENTAL DEGRADATION IN CHUKA
IGAMBANG`OMBE SUB- COUNTY

4.1 Introduction

This chapter presents the results pertaining to objective one that sought to investigate the causes of environmental degradation in Chuka Igambang'ombe Sub-County. Presented in this chapter also is the response rate and demographic characteristics of the respondents.

4.2 Response Rate

The response rate to the tools used to collect data is provided in Table 3.

Table 3: Response Rate

Category	Targeted	Responded	Response Rate (%)	Non-response	Non-response rate
Questionnaire:					
Catholic woman Association, Catholic Men Association, Youth Association, Parish Council and Development Committee.	379	359	94.72%	20	5.28%
Interview:					
Priests	10	8	80%	2	20%
Total	389	367	94.34%	22	5.66%

From the data shown in Table 3 above, it is evident that out of the 379 questionnaires distributed, 359 were filled and returned accounting for 94.72% return rate. This was well above 70 percent threshold recommended by Mugenda and Mugenda (2008) and Cooper and Schindler (2014) who asserts that a response rate of over 50 percent is satisfactory, 60 percent is better while a response rate of over 70 percent is excellent. A high questionnaire response rate was important in ensuring that the results were representative of the target sample and that the questionnaire elicited information that enhanced generalizability. The high response rate for this study was due to good logistical preparation prior to the collection of the data. Regarding the non-response within the questionnaire phase of the research, a noteworthy aspect emerged. Despite achieving an impressive overall response rate of 94.72%, 20 out of the sample equivalent to 5.28% individuals chose not to participate. While the majority exhibited a positive engagement with the survey, this non-response prompts a

nuanced examination of potential contributing factors. Communication challenges or logistical constraints may have influenced their decision to abstain. The results further indicate that ten priests were scheduled for interview where 8 turned up while 2 declined. Thus, the response rate of interview was 80% which was also deemed appropriate. The non-response among priests were due to demanding schedules of priests and partly communication challenges in reaching out to the targeted priests and logistical issues such as distance or time constraints could further account for the observed non-response.

4.3 Demographic Characteristics of the Respondents

Parish Council members, Development Committee members, Catholic Women Association members, Catholic Men Association Members and Youth Association Member were among those who took part in the survey. It was necessary to obtain demographic information of the respondents in order to get a clear picture of the sample from different gender and age. The research aimed to delineate the demographic characteristics of the respondents. Specifically, the investigation sought information regarding the respondents' gender, age bracket, and level of education. The subsequent subheadings explore the detailed discussion of the findings.

4.3.1 Gender of the Respondents

The research study investigated how different genders are represented and perceive the causes of environmental degradation, the role of the Catholic Church in addressing environmental crisis in Chuka Igambang'ombe Sub- County as well as Biblical and theological justification of the Church involvement in environmental conservation in Chuka Igambang'ombe Sub-County. Assessing gender was crucial in this study as it deepened the understanding of how different genders perceived and were affected by environmental degradation in Chuka Igambang'ombe Sub-County. Recognizing that gender significantly influenced individual and collective experiences, it was essential to identify not only the causes of environmental degradation but also how these causes differentially impacted men and women. Such insights provided a comprehensive overview of environmental challenges, highlighting issues such as access to resources, participation in decision-making processes, and varying vulnerabilities to environmental changes.

Furthermore, understanding gender dynamics proved essential when analyzing the role of the Catholic Church in addressing environmental crises. Different genders often hold distinct expectations and experiences regarding the Church’s efforts, shaped by their cultural and social roles. By assessing these perspectives, the study evaluated how Church engages with various gender groups, ensuring that its interventions are inclusive and resonates with the needs of the entire community.

Finally, in examining the Biblical and theological justifications for the Church's involvement in environmental conservation, it was vital to consider gendered interpretations of scripture and doctrine. Assessing gender revealed how theological messages were received differently among diverse gender groups, facilitating a richer discussion surrounding faith-based engagement in environmental issues. In summary, including a gender assessment empowered the study to generate nuanced conclusions, ultimately leading to more informed, equitable, and impactful recommendations for environmental conservation efforts within the community.

Table 4: Gender of the Respondents

Gender	Frequency	Percent (%)
Female	229	63.8
Male	130	36.2
Total	359	100.0

Results indicated that 63.8% of participants identified as female, while 36.2% identified as male. These outcomes align with and support the observations made by influential environmentalists in their respective works. These results resonate with the work of Florence (2014), who underscored the interconnectedness between gender, community, and environmental issues. Her advocacy for recognizing the roles of both men and women in addressing environmental challenges finds support in the gender distribution observed in the dataset (Florence, 2014).

4.3.2 Age of the Respondents

The first objective of the study was to identify the causes of environmental degradation in Chuka Igambang’ombe Sub-County. To accomplish this, an examination of sociodemographic characteristics, particularly the age distribution among Parish Council members, Development Committee members, Catholic Women Association members, Catholic Men Association Members and Youth Association,

was conducted. By analyzing the age demographics of the participants, the study sought to gain insights into their historical background, experiences, and perspectives that may have influenced their understanding and approach towards environmental issues. The assessment of socio-demographic factors such as age was crucial in evaluating how generational influences could impact the decision-making process related to the environment. This comprehensive approach aimed to contribute to a deeper understanding of what causes environmental degradation in Chuka Igamba ng'ombe Sub-County. The findings are presented in the figure 1 below.

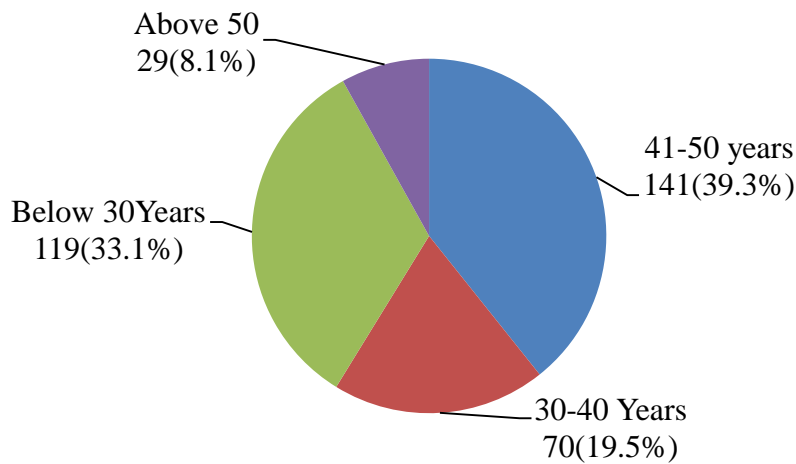


Figure 1: Age of respondents

The research study examined the age distribution of 359 respondents. Among the respondents, it was found out that 119(33.1%) belonged to the age bracket below 30 years. This indicates that approximately one-third of the respondents are below the age of 30. In contrast, 70(19.5%) fell within the age range of "30-40 years," suggesting a relatively smaller representation in this age group. The most notable age group among the committee members was "41-50 years," comprising 141(39.3%) of the sample. This indicates that almost 40% of the respondents were aged between 41 and 50 years, making it the most prevalent age bracket among the participants. Furthermore, research revealed that a smaller proportion of committee members, 29(8.1%), were categorized as "Above 50 years." This indicates that only a limited number of participants were above the age of 50. These findings are similar to those of Smith (2020), who noted a notable age distribution among members in Catholic parishes regarding the addressing of environmental degradation. The study observed a significant representation of individuals below 30 years and those in their 40s, indicating a diverse demographic composition within these two age groups. These

results emphasize the importance of engaging individuals from various age groups in environmental stewardship efforts.

4.3.3 Level of Academic Qualifications

The level of academic qualifications played a crucial role in this research study, which aimed to understand the causes of environmental degradation, as well as the role of the Catholic Church and Biblical justifications for its involvement. Examining educational attainment was essential for multiple reasons in relation to the study's objectives.

Firstly, higher academic qualifications, such as advanced degrees or specialized training in environmental studies, indicated deeper knowledge and understanding of environmental issues among respondents. The literature supports this; studies like Roberts and Johnson (2019) show that individuals with higher education levels often possess enhanced critical thinking skills and a greater awareness of complex environmental dynamics. This expertise directly contributes to a more nuanced analysis of the causes of environmental degradation, thereby aligning with the objective of identifying these causes effectively.

Secondly, the credibility and validity of the research findings were significantly influenced by the respondents' academic qualifications. Individuals with advanced education typically exhibit strong methodological rigor and analytical capabilities, leading to more reliable and robust data interpretation. This directly connects to the study's aims by ensuring that the insights generated regarding the Catholic Church's role in addressing environmental crises are well-supported and trustworthy. Therefore, the diverse educational backgrounds of participants must be considered when analyzing their contributions to understanding environmental challenges.

The varied educational attainment among participants points to a potential difference in perspectives regarding the Church's involvement and the Biblical justification for environmental conservation. For instance, those with higher qualifications might engage more critically with theological perspectives, potentially leading to richer dialogues about the moral imperatives for environmental stewardship. This aligns with the study's objective of assessing the theological justification for the Church's

involvement, reinforcing the importance of educational context in these discussions. The findings were as follows in the table 5.

Table 5: Level of Academic Qualifications

Level of Education	Frequency	Percent (%)
Primary	128	35.7
Secondary	142	39.6
Diploma	67	18.7
Bachelor Degree and above	22	6.1
Total	359	100.0

Among the respondents, 128(35.7%) had completed their education up to the Primary level. This indicates that approximately 35.7% of the participants had received primary education as their highest level of education. The Secondary education level was achieved by 142(39.6%), making it the most prevalent education category. This suggests that nearly half of the respondents had completed their education up to secondary school. Furthermore, 67(18.7%) had attained a Diploma as their highest education level. This indicates that approximately 18.7% of the participants had pursued further education beyond secondary school and earned a diploma. In contrast, only 22(6.1%) had attained a Bachelor degree and above. This suggests that a smaller proportion of respondents had pursued higher education and earned a bachelor's degree or a higher academic qualification. These results align with a study conducted by Roberts and Johnson (2019), which also observed a similar distribution of education levels among their research participants. They found a higher percentage with secondary education, followed by those with diplomas, and a smaller percentage with higher degrees. These consistent patterns suggest that individuals involved in researching environmental degradation share comparable educational backgrounds. The researchers stress the need to consider this diversity and expertise when developing effective interventions and policies for addressing environmental challenges. The convergence of findings across studies further underlines the significance of education level as a crucial factor in understanding the causes of environmental degradation.

In summary, the participants in this study had a diverse range of academic qualifications influenced by their education levels. Many had completed secondary education or held diplomas, while a smaller proportion possessed higher degrees. These findings emphasize the importance of considering participants' educational

backgrounds and expertise when investigating environmental degradation causes. Varying levels of education can impact knowledge depth and potential contributions to addressing environmental challenges.

4.4 Causes of Environmental Degradation

This section provides a brief introduction to the subheading "Causes of Environmental Degradation. In investigating the causes of environmental degradation within the study, participants comprising the Catholic Women's Association (CWA), Catholic Men's Association (CMA), Youth Association (YA), Parish Council, and Development Committee, it was imperative to explore the multifaceted factors contributing to environmental challenges. Environmental degradation is a complex phenomenon influenced by various human activities and natural processes that adversely impact ecosystems and the overall health of the environment. Within the context of the Catholic community represented by the CWA, CMA, YA, Parish Council, and Development Committee, understanding the specific causes becomes paramount for devising targeted strategies and interventions.

Table 6: Causes of Environmental Degradation

Cause	Frequency	Percent
Deforestation	48	13.4
Pollution	40	11.1
Failure to take Care of the Environment	15	4.2
Lack of Knowledge on Conservation of Environment	8	2.2
Economic Growth	44	12.3
Burning of Fossils and Charcoals	82	22.8
Insufficient Rain	59	16.4
Population Growth	49	13.6
Soil Erosion	14	3.9
Total	359	100.0

Results showed that deforestation emerged as a notable cause of environmental degradation, with 48(13.4%) of respondents attributing it as the primary factor, aligning closely with existing literature that emphasizes the detrimental effects of land conversion for agricultural purposes. This connection strengthens the argument that agricultural expansion often comes at the cost of environmental integrity, leading to habitat loss, soil erosion, and declining biodiversity.

Results also indicated that 40(11.1%) of the respondents indicated that pollution plays a significant role in environmental degradation. The findings echo the warnings

highlighted by Inumaru, Hasegawa, Shirai, Nishida, Noda, and Ohyama (2021), who emphasized the severe implications of fossil fuel usage on environmental health. This alignment adds weight to the academic understanding of fossil fuels as a major contributor to ecological distress, urging a re-evaluation of energy practices in the Sub-County.

Results further indicated that 15(4.2%) of the respondents believed that neglecting environmental care directly contributed to its deterioration. Additionally, 8 equivalents to 2.2% identified a lack of knowledge regarding conservation practices as a contributing factor to environmental decline. In contrast, 44(12.3%) believed that economic growth contributes significantly to environmental degradation. This viewpoint resonates with scholars like Smith and Johnson (2020), who argue that the pursuit of economic development often results in unsustainable practices and the depletion of natural resources.

Results further indicated that 82 (22.8%) of the respondents attributed environmental degradation to burning fossils and charcoals. This aligns with Jones (2019), who emphasized the harmful consequences of burning fossil fuels on the environment. Research further indicated that 59(16.4%) of the participants attributed environmental degradation to insufficient rainfall. As a contributory factor, climate change underscores the growing scholarly consensus on its role in exacerbating environmental challenges. This aligns with calls for sustainable water management strategies, demonstrating how the findings provide fresh insights into the local environmental context those scholars and policymakers must consider.

Findings also revealed that 49(13.6%) of the respondents believed that population growth contributed to environmental degradation. This viewpoint is supported by Johnson, (2018) research, which argues that an increasing population exerts pressure on natural resources, leading to deforestation, pollution, and soil erosion. In terms of scholarship, these findings contribute to a more nuanced understanding of causative factors in ecological degradation within ecclesial contexts. They foster a broader dialogue on how religious institutions, particularly the Catholic Church, can play a pivotal role in addressing these issues by promoting sustainable practices and advocating for policies that consider both environmental and social justice. Soil erosion, identified by 14 (3.9%) of the respondents, emerges as a crucial factor

contributing to environmental degradation. It poses a considerable risk to sustainable land use and agriculture due to the loss of fertile soil and disruption of ecosystems. These findings align with the research of Blaikie and Brookfield (2019), who also emphasized the detrimental impact of soil erosion on environmental health. Both studies underscore the importance of addressing soil erosion in comprehensive strategies aimed at mitigating environmental degradation.

Munene (OI, 2023) highlighted deforestation for agricultural expansion and improper waste disposal practices as key factors contributing to environmental degradation in Chuka Igambang'ombe Sub-County. Deforestation for agricultural purposes can lead to habitat loss, soil erosion, and a decline in biodiversity. Improper waste disposal can result in pollution of water sources and land degradation. Addressing these issues requires sustainable land use practices and proper waste management systems. Water pollution due to inadequate waste management practices and biodiversity loss resulting from habitat destruction were identified by Kallikatt (OI, 2023) as significant causes of environmental degradation in Chuka Igambang'ombe Sub-County. Water pollution can have adverse effects on aquatic ecosystems and human health. Biodiversity loss due to habitat destruction disrupts ecological balance. Implementing pollution control measures and conservation efforts can help mitigate these environmental challenges. George (OI, 2023) underlined improper waste disposal practices causing pollution and the lack of effective conservation initiatives are key factors contributing to environmental degradation in Chuka Igambang'ombe Sub-County. Improper waste disposal can contaminate the environment and harm wildlife. Insufficient conservation initiatives may result in habitat loss and biodiversity decline. Implementing proper waste management strategies and enhancing conservation programs are critical for environmental protection.

Overgrazing leading to land degradation and uncontrolled logging activities causing habitat loss were emphasized as significant causes of environmental degradation in Chuka Igambang'ombe Sub-County (Javan, OI, 2023). Overgrazing can deplete vegetation cover and lead to soil erosion, impacting the ecosystem's stability. Uncontrolled logging disrupts habitats and reduces biodiversity. Sustainable grazing practices and regulated logging can help mitigate these effects and promote ecosystem health. Valiyaveeytil (OI, 2023) pointed out encroachment on natural habitats and

pollution from inadequate waste management practices as notable factors driving environmental degradation in Chuka Igambang'ombe Sub-County. Encroachment on natural habitats can lead to habitat fragmentation and loss of biodiversity. Inadequate waste management practices can pollute water sources and degrade the environment. Conservation of natural habitats and proper waste disposal are crucial for environmental preservation. He further highlighted unsustainable agricultural methods leading to soil erosion and inadequate conservation measures for natural resources as primary factors contributing to environmental degradation in Chuka Igambang'ombe Sub-County. Unsustainable agricultural practices like intensive farming can deplete soil nutrients and increase erosion. Inadequate conservation measures can compromise ecosystem resilience. Implementing sustainable farming techniques and enhancing conservation efforts are essential for environmental sustainability.

Soil erosion from intensive farming practices and deforestation for agriculture were stressed as primary factors driving environmental degradation in Chuka Igambang'ombe Sub-County (Mbirichi, OI, 2023). Soil erosion reduces soil fertility and can lead to sedimentation in water bodies. Deforestation for agriculture accelerates habitat loss and biodiversity decline. Implementing soil conservation practices and promoting sustainable land use are essential for mitigating these environmental issues. Nyarire (OI, 2023) highlighted the inadequacy of conservation efforts in the region leading to habitat destruction and deforestation causing ecosystem disruption as key factors contributing to environmental degradation in Chuka Igambang'ombe Sub-County. Inadequate conservation efforts can result in habitat degradation and loss of ecosystem services. Deforestation disrupts ecological balance and reduces biodiversity. Strengthening conservation measures and promoting sustainable land management practices are essential for preserving the environment in the region.

4.4.1 Ways in which Religious Communities Contribute to Environmental Degradation

This section presents the views of the respondents who include the CWA, CMA, YA, Parish Council and Development Committee on how Christians take part in polluting the environment. The analysis of the findings is as presented in table 7 below.

Table 7: Ways in which Christians Pollute Environment

Ways	Frequency	Percent
Cutting Down Trees	113	31.5
Burning of Charcoals	75	20.9
Releasing Untreated Sewages to Rivers	19	5.3
Burning Bush	49	13.6
Deforestation	40	11.1
Smoking	16	4.5
Improper Disposal of Wastes	8	2.2
Ozone Layer Depletion	16	4.5
Water Pollution	17	4.7
Excessive Use of Fertilizers	6	1.7
Total	359	100.0

From the results presented above, cutting down trees was the most prevalent practice, with a frequency of 113(31.5%) of the total respondents. This highlights a significant concern, as deforestation has far-reaching consequences on biodiversity, climate regulation, and ecological balance. The findings resonate with the broader global discourse on environmental degradation. Many scholars, such as Lipper, Thornton, Campbell, Baedeker, Braimoh, Bwalya, and Torquebiau (2014), have emphasized the detrimental impact of deforestation on African ecosystems, emphasizing its role in exacerbating issues like desertification, loss of habitat, and disruption of traditional livelihoods. Upon examination, we find a parallel perspective on the consequences of cutting down trees. Lipper *et al.* (2014), underscore the interconnectedness of deforestation with social and economic factors, particularly in African regions. This aligns with the identified high frequency of tree cutting among Christians, suggesting a need for targeted interventions that consider both environmental and socio-economic dimensions. Burning of charcoals, accounted for a substantial 75(20.9%). Felix, (2023) emphasizes the importance of contextualizing such practices within the socio-economic realities of Christian communities. He further suggests that economic factors may drive these activities, advocating for holistic approaches that balance environmental conservation with the livelihoods of these communities. The release of untreated sewages into rivers emerges as another environmental issue, representing 19(5.3%) of reported practices. Mohamed, (2013) viewpoint becomes pertinent in this context. Mohamed underscores the necessity for targeted interventions and awareness campaigns within Christian communities. He argues for community-based initiatives that address the specific challenges of sewage disposal, emphasizing education and infrastructural development. Burning bushes is identified as a significant contributor

to environmental degradation, encompassing 49(13.6%) of reported practices. Scholar Malcolm, (2003) perspective brings attention to the cultural dimensions of such practices. He suggests that understanding the symbolic or ritualistic aspects of burning bushes within Christian traditions is crucial. He advocates for interventions that respect cultural nuances, aiming for collaborative efforts that incorporate local beliefs into environmental conservation strategies. Deforestation, constituting 40(11.1%) of reported practices, is another noteworthy concern. This aligns with work of Felix, (2023) who stresses on the importance of economic alternatives for communities engaged in deforestation. Smoking was identified as a concern, representing 16(4.5%) of reported practices. These findings are supported by the work of Felix, (2023) on the cultural and behavioral aspects associated with smoking within Christian communities. He suggests that targeted awareness campaigns and community-based initiatives could be effective in addressing this particular aspect of environmental impact.

Improper disposal of wastes, accounting for 8 (2.2%), is another area of environmental concern. Mohamed (2003) presents a perspective on the importance of community-driven initiatives and argues for educating Christian communities about proper waste disposal practices and implementing local waste management solutions as mitigation measures for environmental challenges. These ideas resonate with the findings. Water pollution, representing 17(4.7%) of reported practices, draws attention to potential impacts on aquatic ecosystems. Excessive use of fertilizers, constituting 6(1.7%), is a relatively smaller but noteworthy concern. Felix's, (2023) economic perspective is relevant here, emphasizing the need for alternative agricultural practices that balance environmental conservation with the economic needs of Christian communities. In examining these concerns, the scholars collectively highlight the need for nuanced and context-specific approaches. Understanding the socio-economic, cultural, and contextual factors at play is crucial for formulating effective strategies for environmental stewardship within Christian communities.

4.4.2 Environmental Degradation

The data presented in the figure 2 below present the respondents' responses pertaining to the question of whether environmental degradation practices bother them or not.

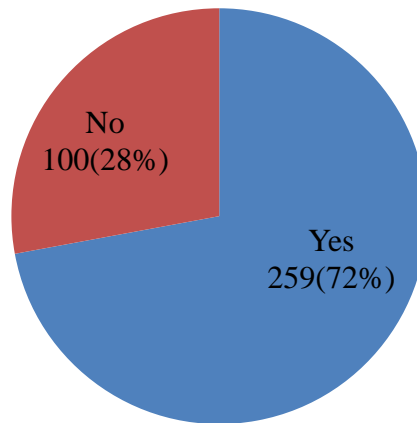


Figure 2: Environmental Degradation

Out of the total respondents, 259(72%) indicated that these practices do indeed bother them; while 100(28%) expressed that they are not bothered by environmental degradation. The dominant sentiment, as reflected by the majority, is a concern regarding environmental degradation practices. This suggests a notable level of awareness or sensitivity among the surveyed individuals regarding the impact of activities contributing to environmental harm. On the contrary, a substantial but comparatively smaller percentage of respondents indicated a lack of concern about environmental degradation practices. In essence, the data implies a varied spectrum of attitudes and perspectives within the surveyed population regarding their emotional response to environmental degradation. The majority's acknowledgment of concern aligns with an increasing societal awareness of environmental issues, while the minority expressing indifference highlights the existence of diverse viewpoints within the larger context of environmental consciousness.

4.4.3 Remedies for Environmental Degradation

The data below explores respondents' perspectives on addressing environmental degradation concerns and proposes various initiatives to be undertaken if such practices bother them. The following initiatives were identified along with their corresponding frequencies and percentages:

Table 8: Remedies for Environmental Degradation

Responses	Frequency	Percent
Planting More Trees	159	44.3
Protecting Water Catchment Areas	34	9.5
Being a Role Model	31	8.6
Viewing Conservation of the Environment as a Personal Initiative	27	7.5
Cleaning Environment Regularly	4	1.1
Participate In Cleaning of the Environment	47	13.1
Soil Conservation	22	6.1
Offer Education to the General Public on the Importance of Conserving the Environment	35	9.8
Total	359	100.0

Among the notable actions, planting more trees and participating in the cleaning of the environment emerged as particularly mentioned by the respondents, constituting 159(44.3%) and 47(13.1%) of the responses, respectively. These actions align with the broader environmental views of scholars such as Kaushal *et al.* (2011), an ecologist who advocated for tree planting due to its positive impacts on biodiversity and ecosystem health. According to Murungi (OI, 2023) frequent mass tree planting would help solve the problem of environmental degradation. Murungi's emphasis on frequent mass tree planting highlights a proactive approach to combating environmental degradation, a critical global issue affecting diverse ecosystems. Munene (OI, 2023) emphasized the need for reforestation efforts, including the establishment of agroforestry systems, and promoting community-led waste management and recycling initiatives as control measures for environmental degradation in Chuka Igambang'ombe Sub-County. Reforestation and agroforestry can help restore vegetation cover and protect the soil from erosion. Community-led waste management and recycling initiatives can reduce pollution and promote sustainable resource use, contributing to environmental preservation. The importance of promoting afforestation and sustainable land use planning, including the adoption of agroecological practices and implementing soil conservation measures was stressed as key control measures for environmental degradation in Chuka Igambang'ombe Sub-County (Mbirichi, OI, 2023). Afforestation and sustainable land use planning can restore vegetation cover and promote ecosystem resilience, contributing to environmental stability. Soil conservation measures can mitigate soil erosion and preserve soil productivity, fostering sustainable agricultural practices and environmental well-being.

Research further showed that 34(9.5%) and 47(13.1%) of the respondents emphasized on community involvement, reflected in responses like being a role model and participating in cleaning activities respectively, this resonates with the idea of collective responsibility for environmental well-being. This aligns with the potential perspectives of scholars like Ifesanya, (2012), who encouraged individuals to view cleaning of environment as a personal initiative and to act as role models in order to inspire others.

The research also highlighted the importance of education, as evidenced by 35(9.8%) of respondents favoring the offering of education on the importance of conserving the environment. This aligns with the potential views of scholars like Matson *et al.* (2016), an environmental scientist, who emphasized the role of awareness and education in promoting sustainable practices. Furthermore, the inclusion of actions such as protecting water catchment areas supported by 34(9.5%) and soil conservation mentioned by 22(6.1%) underscores the respondents' recognition of the need to safeguard vital resources. This aligns with the perspectives of scholars like Okereke, (2014), who emphasized on the significance of protecting water sources for sustainable development and soil conservation efforts for maintaining healthy ecosystems and sustainable agriculture.

The importance of implementing rotational grazing systems to manage overgrazing and advocating for sustainable logging practices, including afforestation efforts, was highlighted as crucial for controlling environmental degradation in Chuka Igambang'ombe Sub-County (Javan, OI, 2023). Rotational grazing can prevent overgrazing and promote pasture regeneration, contributing to ecosystem health. Sustainable logging practices and afforestation efforts can conserve habitats and enhance biodiversity, leading to long-term environmental stability. Valiyaveetytil (OI, 2023) emphasized the need for creating protected areas to safeguard natural habitats and implementing strict regulations for industrial waste disposal as control measures for environmental degradation in Chuka Igambang'ombe Sub-County. Protected areas can serve as biodiversity reserves and mitigate habitat loss, contributing to ecosystem conservation. Strict regulations for industrial waste disposal can prevent pollution and protect environmental integrity, fostering sustainable development. He further stressed the importance of promoting sustainable agricultural

practices, such as conservation tillage and organic farming, and establishing community-based natural resource management initiatives to control environmental degradation in Chuka Igambang'ombe Sub-County. Sustainable agricultural practices can minimize soil erosion and maintain soil fertility, contributing to sustainable land use. Community-based natural resource management initiatives can empower local communities to protect their environment, fostering resilience and sustainability.

George (OI, 2023) underlined the significance of implementing effective waste management policies, including recycling and composting programs, and establishing conservation education and awareness campaigns as control measures for environmental degradation in Chuka Igambang'ombe Sub-County. Effective waste management policies can mitigate pollution and promote resource conservation, contributing to environmental health. Conservation education and awareness campaigns can foster a culture of environmental stewardship and promote sustainable practices, fostering positive environmental outcomes.

The need for implementing pollution control measures, such as wastewater treatment facilities, and promoting habitat restoration initiatives, including reclamation of degraded areas, as control measures for environmental degradation in Chuka Igambang'ombe Sub-County was highlighted by Kallikatt (OI, 2023). Pollution control measures, including wastewater treatment facilities, can safeguard water quality and aquatic ecosystems, contributing to environmental integrity. Habitat restoration initiatives can revitalize degraded areas, enhancing ecological resilience and promoting environmental sustainability. Nyarire (OI, 2023) emphasized the need for establishing protected areas and wildlife corridors, and promoting community-based conservation initiatives, as well as implementing reforestation programs as control measures for environmental degradation in Chuka Igambang'ombe Sub-County. Protected areas and wildlife corridors can protect habitats and facilitate species movement, contributing to biodiversity conservation. Community-based conservation initiatives and reforestation programs can empower local communities to take proactive measures for environmental preservation, fostering sustainable outcomes for the region.

4.4.4 Dangers of Destroying Environment

The data presented in Table 8 reveals the perceived dangers associated with the destruction of the environment.

Table 9: Dangers of destroying environment

Danger	Frequency	Percent
Soil Erosion	29	8.1
Insufficient Rains	134	37.3
Flooding	21	5.8
Desertification	85	23.7
Soil Pollution	24	6.7
Water Pollution	34	9.5
Can Lead To Environmental Degradation	32	8.9
Total	359	100.0

Soil erosion, accounting for 29(8.1%) of responses, signifies concerns about the degradation of arable land; this resonates with Azapagic's (2018) emphasis on life cycle thinking for sustainable development. The predominant concern of insufficient rains, 134(37.3%), underscores the critical role of precipitation in sustaining ecosystems. This aligns with Grub's (2006) work on biodiversity, emphasizing the intricate connections between biodiversity, climate resilience, and ecosystem health. The acknowledgment of flooding as a danger, as mentioned by 21(5.8%) of the respondents, highlights the vulnerability of certain regions to excessive water accumulation. Cumming's (2014) research on ecosystem resilience becomes pertinent in this context, providing insights into mitigating the impact of flooding by fostering resilience in natural systems.

Desertification, identified by 85(23.7%) of respondents, signals a perceived threat to arid and semi-arid regions. Oyejide's (2011) work in sustainable development aligns with this concern, emphasizing strategies for sustainable land use and management to combat desertification. The danger of soil pollution identified by 24(6.7%), reflects concerns about the contamination of this vital resource. Ojo's (2020) contributions to sustainable development emphasize the need for sustainable practices in agriculture and waste management to address soil pollution. Water pollution, acknowledged by 34(9.5%) of respondents, highlights concerns about the contamination of this essential resource. These findings resonate with Olaleye, (2021) expertise in urban planning and sustainable development becomes relevant here, emphasizing the interconnectedness of environmental health and urban planning. The recognition of the potential for environmental degradation 32(8.9%) signifies a holistic

understanding of the interconnectedness of various environmental hazards. This aligns with the viewpoints of Azapagic, (2018) emphasize on the imperative for collaborative, interdisciplinary approaches to mitigate the identified dangers and foster sustainable environmental practices.

4.4.5 Rate of Engagement on Environmental Conservation Measures

The data presented in Table 9 sheds light on the rate of engagement in environmental conservation measures, providing insights into the frequency with which individuals participate in activities aimed at preserving the environment. The frequencies and percentages for each engagement interval are presented, revealing the diverse patterns of involvement in environmental conservation.

Table 10: Rate of Engagement on Environmental Conservation Measures

Rate of Engagement	Frequency	Percent
Monthly	10	2.8
Weekly	10	2.8
Semi-annually	54	15.1
Yearly	132	36.8
After Four Months	104	28.9
Regularly	32	8.9
After Two Months	17	4.7
Total	359	100.0

Engaging semi-annually, as indicated by 54(15.1%) of respondents, suggests a moderate level of commitment to environmental conservation measures. This periodicity may align with certain activities or campaigns. Crush (2005) expertise in migration and development, offer insights into how such engagement patterns relate to demographic and migration trends, influencing the semi-annual participation observed in the data. The relatively low engagement reported after two months 17(4.7%) reflect less frequent involvement or specific event-driven actions. Gnacadja (2023) known for his work in sustainable development and environmental governance, provides perspectives on the effectiveness of short-term engagement intervals and potential areas for improvement in environmental governance strategies.

Monthly engagement, reported by 10(2.8%) of respondents, indicates a more regular commitment to environmental conservation. This aligns with the expertise of Juma (2000) in technology and sustainable development, which offers insights into how technological advancements support sustained monthly engagement in environmental

activities. Weekly engagement, reported by 10(2.8%) of respondents, suggests less involvement in environmental conservation measures. This contrasts with the research of Belkacem (2020) in environmental management and policy, which provides valuable insights into the impact of such frequent engagement on the effectiveness of conservation efforts. Engaging every two months, 17 (4.7%) reflects a less frequent but still periodic commitment to environmental conservation, aligning with the expertise of Esimai (2018) in sustainable development and corporate responsibility. This offers insights into how corporate initiatives and organizational policies may influence such periodic engagement. In contrast, regular engagement reported by 32 (8.9%) of respondents suggests a consistent commitment to environmental conservation, aligning with the work of Pieterse (2010) in urbanization and sustainability. This provides perspectives on how urban planning and development contribute to sustained, regular engagement in environmental activities. Results indicated that 132 (36.8%) of respondents reported engaging in environmental conservation measures on a yearly basis. This suggests that a substantial portion of the respondents demonstrates frequent commitment to environmental conservation, participating in such activities once a year. This aligns with the expertise of Esimai (2018) in sustainable development and corporate sustainability, offering insights into how corporate initiatives may influence yearly engagement patterns.

4.4.6 Challenges Encountered in Implementation of Environmental Control Measures

George (OI, 2023) recognized the challenges posed by the ignorance in conserving the environment. In response, he proposed strategies such as encouraging the public to plant trees and advocating for more frequent education on the importance of environmental conservation. George's recognition of ignorance as a barrier to effective environmental conservation highlights the importance of raising awareness and promoting education within religious contexts. Ignorance can lead to apathy towards conservation efforts, hindering sustainable practices and environmental stewardship among believers. By proposing the strategy of encouraging the public to plant trees, George aims to instill a sense of responsibility and environmental engagement within the Christian community. Tree planting not only contributes to carbon sequestration and biodiversity conservation but also serves as a tangible action that individuals can take to protect the environment and demonstrate care for creation.

A challenge stemming from a lack of knowledge on environmental issues was acknowledged by Kallikatt (OI, 2023). In response, he proposed tree planting initiatives as a means to address this gap. Kallikatt's acknowledgment of the challenge stemming from a lack of knowledge on environmental issues underscores the need for targeted efforts to promote awareness and understanding of ecological concerns within the community. This awareness is crucial for fostering a culture of environmental responsibility and action. Kallikatt's proposal of tree planting initiatives as a means to address the knowledge gap reflects a proactive approach towards simultaneously addressing environmental challenges and promoting education. Tree planting serves as a tangible and participatory method to engage the public in environmental conservation efforts while directly contributing to ecosystem restoration and carbon sequestration.

Mbirichi (OI, 2023) identified uncooperativeness and laxity regarding environmental conservation measures. In response, he proposed frequent mass tree planting events and seminars to enhance awareness and cooperation. Mbirichi's identification of uncooperativeness and laxity regarding environmental conservation measures signals a need to address the lack of active engagement and commitment in environmental initiatives within the parish. Overcoming these challenges is crucial to fostering a culture of environmental stewardship and proactive participation. Frequent mass tree planting events demonstrates a strategic approach to actively engage the public in environmental conservation efforts. These events provide a platform for collective action, allowing individuals to come together to contribute to a tangible and impactful environmental initiative, fostering a sense of shared responsibility and cooperation. Organizing seminars to enhance awareness and cooperation addresses the need for education and advocacy within the parish. These seminars can provide a forum for disseminating information about environmental issues, conveying the importance of conservation measures, and fostering a deeper understanding of the interconnectedness between faith and environmental stewardship.

Challenges identified by Munene (OI, 2023) include ignorance regarding the importance of environmental conservation and the illiteracy of some members of the public. In response, he proposed specific measures such as controlling soil erosion,

promoting appropriate farming methods, and planting trees. Munene's recognition of ignorance among Christians about the importance of environmental conservation points to a critical need for education and awareness-building within the parish. The lack of understanding about ecological concerns can hinder proactive engagement in conservation efforts. The acknowledgment of illiteracy among some parishioners underscores the need for practical and accessible means of promoting environmental consciousness, as traditional educational methods may not effectively reach all members of the community. Munene's proposal to control soil erosion aligns with the broader goal of promoting sustainable land management practices. Soil erosion control measures, such as terracing, agroforestry, and soil conservation techniques, can mitigate environmental degradation and contribute to the preservation of arable land for farming. By advocating for appropriate farming methods, Munene addresses the intersection of agricultural practices and environmental conservation. Introducing sustainable farming techniques, such as crop rotation, organic farming, and integrated pest management, can enhance agricultural productivity while reducing negative environmental impacts.

Ignorance regarding the dangers of destroying the environment was noted by Valiyaveeytil (OI, 2023). In response, he proposed measures such as encouraging government involvement in sensitizing people about the importance of conserving the environment and providing adequate tree planting initiatives. Valiyaveeytil's recognition of ignorance regarding the dangers of environmental destruction highlights a crucial barrier to effective conservation efforts. Without awareness of the consequences of harming the environment, individuals may not prioritize conservation or take necessary action to protect natural resources. The proposal to involve the government in sensitizing people about the importance of conserving the environment reflects a strategic approach to reach a broader audience. Government initiatives can leverage resources, communication channels, and policy frameworks to promote environmental awareness effectively on a larger scale. By advocating for government-led sensitization campaigns, Nyarire (OI, 2023) aims to raise awareness and educate the public about the significance of environmental conservation. These campaigns can communicate the interconnectedness between human actions and environmental impact, fostering a sense of shared responsibility and stewardship. Government involvement can engage various stakeholders, including community

leaders, educational institutions, and environmental organizations, in collaborative efforts to promote environmental education and awareness. By mobilizing diverse resources and expertise, comprehensive environmental sensitization programs can be developed and implemented. Nyarire's emphasis on providing adequate tree planting initiatives aligns with concrete actions to support environmental conservation. Tree planting not only contributes to ecosystem restoration and carbon sequestration but also serves as a visible and tangible symbol of commitment to nurturing the environment for future generations. Through advocating for government involvement in environmental sensitization and tree planting initiatives, Nyarire aims to catalyze positive action towards conservation within the broader community. By fostering a culture of environmental consciousness and responsibility, individuals can actively participate in safeguarding the environment and promoting sustainable practices.

Challenges identified by Javan (OI, 2023) include ignorance regarding environmental conservation. In response, he proposed measures such as educating Christians on the importance of environmental conservation. Javan's proposal emphasizes the transformative power of education in bridging knowledge gaps and promoting informed decision-making. By imparting knowledge about the value of environmental conservation, educational initiatives have the potential to instill a sense of responsibility and prompt behavioral change among the public. Educational programs focusing on environmental conservation can serve as platforms for raising awareness and nurturing ecological consciousness. By disseminating information about ecological systems, biodiversity, and sustainable practices, individuals can gain a deeper appreciation for the interconnectedness between human activities and the environment.

Challenges identified by Valiyaveeytil (OI, 2023) include the reluctance of the public to actively participate in environmental conservation efforts. In response, he proposed measures such as enlightening Christians on the importance of conserving the environment. By focusing on enlightening Christians about the importance of conservation, Valiyaveeytil aims to counteract inertia and foster a sense of urgency and responsibility towards environmental stewardship. Education serves as a powerful tool to bridge knowledge gaps, dispel misconceptions, and inspire action among individuals. Through awareness-building initiatives, Christians can develop a deeper

understanding of the ethical imperatives underpinning environmental conservation. By highlighting the moral obligation to care for creation and protect the environment for future generations, individuals can be motivated to translate beliefs into tangible actions.

The findings in Chapter Four highlighted various causes of environmental degradation in Chuka Igambang'ombe Sub-County as perceived by respondents. Key issues identified include deforestation, pollution, and neglect of environmental care, lack of conservation knowledge, population growth, improper waste disposal, overgrazing, and unsustainable agricultural practices. These findings not only underscore the multifaceted nature of environmental deterioration but also illustrate the interconnectedness of human activities with environmental and ecosystem health. The adverse impacts such as habitat loss, soil erosion, water pollution, and biodiversity decline are clear indicators that effective solutions must integrate sustainable land use practices, proper waste management, regulated logging, and pollution controls.

Analyzing these insights through the lens of Liberation Solidarity Theory reveals a deeper understanding of how environmental challenges are intertwined with issues of social justice. The respondents' emphasis on various human activities, particularly those of lesser resource access and power, reflects the theory's assertion that social injustices and environmental crises cannot be viewed in isolation. Marginalized communities often bear the brunt of environmental degradation, facing a cycle of neglect that further exacerbates their challenges. Furthermore, many respondents pointed to economic growth as a contributing factor to environmental decline. This observation highlights a critical point about the prevailing development paradigms; while these practices may yield immediate economic benefits, they frequently overlook the long-term impacts on the environment and on vulnerable populations. Liberation Solidarity Theory compels us to critique such approaches, advocating for economic practices that not only prioritize growth but are also sustainable and just.

A notable gap identified in respondents' feedback is the lack of environmental education and conservation awareness. This further aligns with the principles of Liberation Solidarity Theory, which emphasizes the importance of education as a tool for empowerment. By fostering a sense of responsibility for environmental

stewardship, we can help marginalized communities build resilience against ecological degradation. The Catholic Church, with its influence and outreach, can play a vital role in disseminating this knowledge and encouraging active participation in conservation efforts.

Comprehensive strategies are needed to tackle the pressing environmental challenges highlighted in this chapter. The respondents call for collaborative approaches that involve sustainable land-use practices and community-driven initiatives. Here, Liberation Solidarity Theory advocates for grassroots involvement and collective action, stressing the importance of including the voices of those most affected by environmental degradation in the decision-making process. Such collaboration among local communities, policymakers, and stakeholders is essential in ensuring that the developed strategies are both effective and inclusive.

The urgency of the environmental issues identified underscores the necessity for prompt action and policy changes. Liberation Solidarity Theory emphasizes systemic change that confronts social and environmental injustices. Thus, promoting inclusive environmental regulations that empower marginalized populations to participate actively in resource management and environmental protection is crucial.

4.5 Conclusion

In summary, this chapter highlighted various factors contributing to environmental degradation as perceived by the respondents. Deforestation, pollution, neglect of environmental care, lack of conservation knowledge, economic growth, burning fossil fuels, insufficient rainfall, population growth, improper waste disposal, overgrazing, encroachment on natural habitats, and unsustainable agricultural practices, in driving environmental deterioration and soil erosion emerged as significant contributors. These findings not only underscore the multifaceted nature of environmental degradation but also emphasize the interconnectedness of various human activities with environmental health as well as adverse impacts on ecosystem health, including habitat loss, soil erosion, biodiversity decline, water pollution, and habitat fragmentation. Addressing these environmental challenges requires a comprehensive approach integrating sustainable land use practices, proper waste management systems, regulated logging, conservation of natural habitats, and pollution control measures. It is evident that the region faces pressing environmental issues that

demand urgent attention and concerted efforts from policymakers, local communities, and stakeholders. Implementing effective strategies to mitigate environmental degradation and promote ecosystem resilience is crucial for ensuring the long-term sustainability of Chuka Igambang'ombe Sub-County's environment and safeguarding the well-being of its inhabitants and biodiversity.

CHAPTER FIVE
ROLE OF THE CATHOLIC CHURCH IN ADDRESSING
ENVIRONMENTAL CRISIS IN CHUKA IGAMBANG'OMBE SUB- COUNTY

5.1 Introduction

This chapter presents the results pertaining to objective two that sought to analyze the contribution of the Catholic Church in addressing environmental crisis in Chuka Igambang'ombe Sub- County.

5.2 Activities Undertaken by the Catholic Church in Conserving Environment

The data presented in table 11 provides insights into activities aimed at educating people on the importance of environmental conservation. The frequencies and percentages associated with each program highlight the diversity of approaches employed to convey the significance of environmental preservation.

Table 11: Activities Undertaken by the Catholic in Conserving Environment

Activity	Frequency	Percent
Tree planting	134	37.3
Seminars	24	6.7
Public awareness	34	9.5
Catholic national tree planting day	133	37.0
None	34	9.5
Total	359	100.0

The data presented indicates several key activities undertaken by Catholics in conserving the environment, highlighting areas of significant engagement as well as potential for growth in environmental education. Tree planting emerged as the most frequently reported activity, 134 respondents (37.3%) indicated their involvement. This finding demonstrates the Catholic community's commitment to environmental stewardship and aligns with insights provided by Nhamo (2021), emphasizing the effectiveness of tree planting initiatives in fostering environmental awareness and promoting sustainable practices within communities. These activities not only help mitigate climate change but also serve as critical educational tools within the Church, showcasing tangible actions toward conservation.

Another notable finding is the Catholic National Tree Planting Day, which attracted a similar level of engagement, with 133 respondents (37.0%). This initiative underscores its significance as a dedicated program for environmental conservation.

Leveraging expertise in forestry and environmental management, Pophiwa (2009) provides valuable insights into the unique aspects and potential effectiveness of such dedicated days in promoting conservation within religious organizations, thereby increasing the overall impact on raising environmental consciousness among Church members. Public awareness programs were noted by 34 respondents (9.5%), indicating a moderate level of engagement. While these programs play a crucial role in promoting environmental education, this aligns with insights provided by Manu (2013), which shed light on the design and impact of public awareness programs in religious communities. This suggests that there is ample room for development in outreach efforts to bolster participation in environmental activities, particularly through innovative and appealing communication strategies.

Seminars, which were mentioned by only 24 respondents (6.7%), reflect a relatively low frequency of structured educational opportunities within the Church. The insights from Bob-Milliar (2012) in environmental sociology highlight that understanding the sociocultural dynamics at play can significantly influence the effectiveness of seminars in fostering environmental awareness within religious contexts. A revitalization of interest in seminar-based learning may be necessary, focusing on interactive and community-centered approaches that resonate more with congregants. Additionally, the response indicating "none," accounting for 34 respondents (9.5%), signifies a portion of the Catholic Church community not currently participating in any specific environmental conservation educational initiatives. This raises a concern, as it indicates that the Church may need to develop outreach and engagement strategies to address this gap. Given that nearly 10% of respondents are uninvolved, it is essential for the Church to assess barriers to participation and implement programs that effectively reach these members.

Overall, the data indicates considerable involvement in conservation activities, particularly tree planting and dedicated programs like the Catholic National Tree Planting Day, while also revealing areas for improvement in public awareness, educational seminars, and engagement with those who are not currently participating. By leveraging insights from the aforementioned scholars, the Catholic Church stands to enhance its role in fostering environmental conservation and awareness among its

members, ultimately cultivating a deeper commitment to stewardship within the community.

5.3 Activities that take Place during Seminars

The data in the figure 3 below provides insights into the activities that take place during seminars conducted by the Catholic Church to promote environmental conservation. The frequencies and percentages associated with each activity offer a comprehensive understanding of the practical initiatives implemented during these educational sessions.

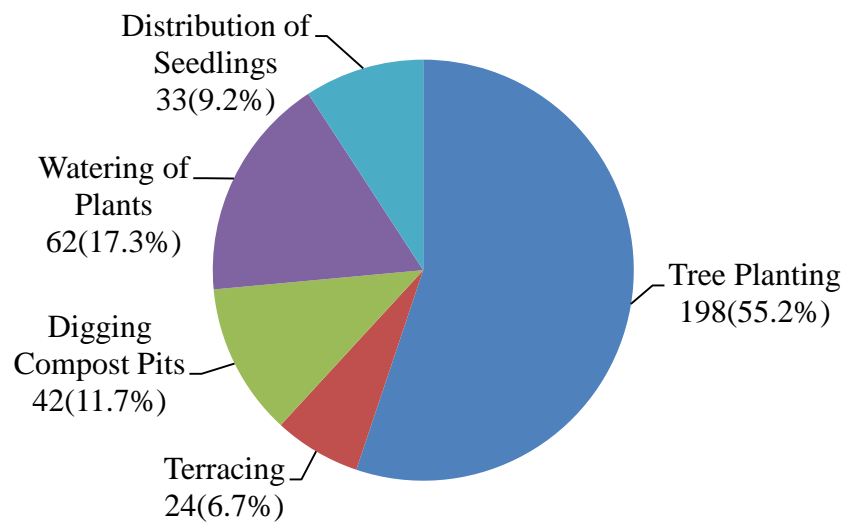


Figure 3: Activities that take Place during Seminars

Results showed that tree planting emerged as a predominant activity during seminars, with 198 (55.2%) of respondents participating in this hands-on environmental conservation measure. This work aligns with the expertise of Azapagic (2018), known for her work in sustainable development and environmental impact assessment, offering insights into the significance of tree planting as a tangible and impactful action in fostering environmental awareness within religious communities. Terracing, reported by 24 (6.7%) of respondents, suggests a focus on soil conservation and land management practices. This work is supported by Gurib-Fakim (2006), an authority in biodiversity and sustainable development, who might provide perspectives on the ecological benefits and implications of terracing as part of environmental conservation efforts. Digging compost pits, accounting for 42 (11.7%), reflects an emphasis on waste management and the promotion of sustainable agricultural practices. This work aligns with the expertise of Cumming (2014), an expert in ecosystem resilience and environmental management, providing insights into the role

of composting in enhancing soil fertility and supporting sustainable agriculture within religious communities. Watering of plants, reported by 62 (17.3%) of respondents, highlights a commitment to nurturing and sustaining planted vegetation. This work is supported by Oyejide (2011), an authority in sustainable development and land use planning, who may offer insights into the role of plant watering in ensuring the success of tree planting initiatives and promoting overall environmental health. Distribution of seedlings, accounting for 33 (9.2%), suggests a proactive approach to encouraging participants to engage in tree planting and environmental stewardship beyond the seminar. This work aligns with the expertise of Okereke (2019), focusing on sustainable agriculture and environmental management, offering insights into the role of seedling distribution in fostering long-term environmental engagement.

5.4 Environmental Conservation Programs

Concerns about the effectiveness of the Laudato Si' Movement in engaging local Christians in Chuka Igambang'ombe Sub-County were expressed by Murungi (OI, 2023), highlighting a significant disconnect between the Church's broader environmental initiatives and their local implementation. This perspective suggests that understanding specific cultural and socio-economic barriers could enhance engagement with the movement. Effective promotion of awareness about the environmental impact of human activities was confirmed by George (OI, 2023) through Environmental Education Programs conducted at both parish and diocesan levels. His insights emphasize the importance of tailored educational initiatives designed to address specific community needs and priorities.

The establishment of Community Gardens by Catholic institutions was noted by Kallikatt (OI, 2023), serving to promote sustainable agriculture while providing fresh produce to local communities. Such initiatives not only tackle food security but also enhance community-building efforts, fostering a stronger sense of ecological stewardship among parishioners. Mbirichi (OI, 2023) acknowledged various initiatives, like the Catholic National Tree Planting Day, yet pointed out their limited effectiveness due to inadequate adherence among Christians. The necessity of enhancing community involvement and commitment is underscored, suggesting that strategies to incentivize participation may effectively bridge the gap between awareness and action.

Recognizing the Church's advocacy efforts concerning Environmental Justice, Munene (OI, 2023) emphasized its role in protecting marginalized communities. However, he identified challenges in mobilizing Christians effectively, highlighting the need for a deeper engagement and collaboration within the Church community to ensure that advocacy resonates more strongly. The adoption of Sustainable Practices in Churches, including reduced energy consumption and recycling programs, was confirmed by Nyarire (OI, 2023), which correlates positively with increased parishioner engagement. This observation illustrates how the Church's commitment to sustainability can impact community involvement, suggesting that transparent communication about these practices could further motivate participation.

Highlighting the Green Parish Program, Valiyaveeytil (OI, 2023) discussed how it assists parishes in assessing their environmental impact while encouraging sustainable practices. Yet, concerns were raised about Christians' reluctance to engage fully with these initiatives. His observations suggest that creating supportive environments for participation, along with regular feedback and recognition, could enhance ownership and accountability among parishioners. Partnerships with Environmental Organizations were acknowledged by Javan (OI, 2023), emphasizing the Church's collaboration with NGOs to promote conservation efforts and conduct habitat restoration projects. These partnerships reflect a strategic approach to leveraging external support for local initiatives, thereby amplifying the Church's impact and fostering broader community awareness of environmental issues.

In summary, the insights from interview respondents reveal critical areas for improvement in environmental conservation programs within the Catholic Church. To maximize the effectiveness of these initiatives and fulfill the Church's ecological mission, it is essential to enhance local engagement, foster community ownership, and address the barriers to participation.

5.5 Effectiveness of the Catholic Church Programs in Educating Christians on Environmental Conservation Measures

The results presented in the figure 4 below shed light to the effectiveness of the programs in catholic church that educate Christians on Environmental Conservations Measures.

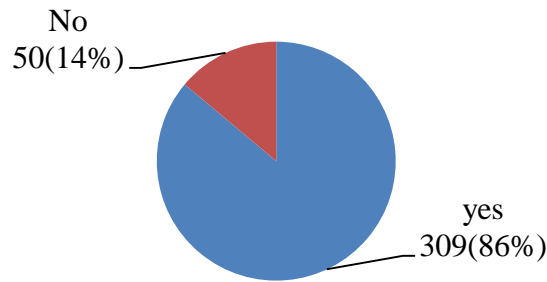


Figure 4: Effectiveness of the Catholic Church Programs in Educating Christians on Environmental Conservation Measures

Results indicated that majority of the respondents 309(86%) said that the available programs in their churches are effective in educating Christians on environmental conservation measures. On the other hand, research showed that only 50(14%) said that the available programs are not effective in educating Christians pertaining the environmental conservation measures.

5.6 Contribution or Interventions of the Catholic Church in Conserving Environment

The data presented in table 13 provides insights into the contributions of the Catholic Church in environmental conservation efforts. The frequencies and percentages associated with each activity shed light on the diverse initiatives undertaken by the Church to promote environmental awareness and sustainable practices.

Table 12: Contribution of Catholic in Conserving Environment

	Frequency	Percent
Educating Members on Planting Trees	149	41.5
Active Planting of Trees	58	16.2
Encouraging Christians to Conserve Environment	86	24.0
Protecting Water Catchment Areas	24	6.7
Environment Conservations	24	6.7
Discouraging Cutting Down of Trees	18	5.0
Total	359	100.0

Educating members on planting trees, reported by 149(41.5%) of respondents, signifies a significant focus on imparting knowledge and fostering awareness within the Catholic community. This work aligns with the expertise of Deane-Drummond (2022) in ecological theology, emphasizing the role of education in shaping the environmental consciousness of religious communities, potentially impacting sustainable practices. Active planting of trees, accounting for 58(16.2%), represents a hands-on approach to environmental conservation within the Catholic Church. This

alignment is supported by Orobator's (2019) insights into theology and ethics, providing perspectives on the theological foundations and ethical considerations guiding active involvement in tree planting initiatives.

The encouragement of Christians to conserve the environment, reported by 86(24.0%), reflects a broader appeal to the Catholic community to embrace a sustainable lifestyle. This work aligns with insights from Osei-Owusu (2019) focused on environmental ethics and theology, providing perspectives on the ethical dimensions of encouraging individuals to actively participate in environmental conservation efforts. Protecting water catchment areas and general environment conservation, each reported by 24(6.7%), highlight the Catholic Church's commitment to safeguarding critical ecological zones. This aligns with the expertise of Okyere-Manu (2022) in environmental science and policy, offering insights into the significance of these initiatives in preserving water resources and maintaining overall environmental health.

According to research, 18(5.0%) of the respondents perceive that the Catholic community contributes to the conservation of the environment by actively discouraging the cutting down of trees. This finding suggests that a small but notable percentage of respondents attribute a role to the Catholic community in advocating against the practice of cutting down trees. This data aligns with Odozor's (2022) works that focus on ethical and environmental issues within the Catholic Church. As perceived by respondents, the Catholic Church is involved in promoting ethical environmental practices, specifically discouraging activities that contribute to deforestation. This implied that within the Catholic community, there may be teachings, initiatives, or advocacy efforts aimed at raising awareness about the importance of preserving trees and discouraging actions that harm the environment. The specific nature of these efforts would require further investigation or consultation with the community members and leaders.

5.7 Educational Initiatives on Environmental Conservation Measures

Murungi (OI, 2023) emphasized the significance of conducting yearly programs as part of the educational initiatives within the parish. These programs aimed at educating people on establishing meaningful connections within their immediate environment. Murungi's emphasis on conducting yearly programs within the parish

indicates a commitment to regular and structured environmental education and awareness activities. This annual approach provides consistent opportunities for parishioners to engage with and learn about environmental issues. The focus on educating people on establishing meaningful connections with their immediate environment underscores the intention to foster a deep and personal relationship with the natural surroundings. This approach aims at instilling a sense of responsibility and interconnectedness with the environment.

According to George (OI, 2023) the parish conducted yearly programs as part of its educational initiatives to enlighten people on establishing harmonious relationships with the environment. Yearly educational programs within the parish signify a deliberate and structured approach to promoting environmental awareness and education. The annual frequency allows for a concentrated effort to engage parishioners on sustainable practices and environmental stewardship. The emphasis on enlightening people about establishing harmonious relationships with the environment points to a focus on fostering a balanced and interconnected interaction with the natural world. This emphasizes the holistic relationship between individuals and their surroundings, advocating for mindful and sustainable interactions.

Educational initiatives within the parish included yearly programs specifically designed to educate individuals on how to relate to their immediate environment (Kallikatt, OI, 2023). Yearly educational initiatives within the parish demonstrate a commitment to providing consistent opportunities for environmental education and awareness. Conducting programs annually allows for focused and in-depth learning experiences for parishioners. The specifically designed educational programs indicate a tailored approach to address the importance of educating individuals on how to relate to their immediate environment. This approach suggests a purposeful and targeted effort to instill a deep understanding of the local ecosystem and the significance of personal connections to the environment.

Mbirichi (OI, 2023) stated that educational initiatives within the parish encompassed yearly programs focused on sensitizing people about establishing meaningful connections with their immediate environment. The mention of yearly educational initiatives within the parish signifies a commitment to promoting environmental awareness and conservation through structured programs. Conducting programs

yearly allows for a concentrated and comprehensive approach to engaging parishioners on environmental stewardship. The emphasis on sensitizing people about establishing meaningful connections with their immediate environment underscores the focus on fostering a deep, personal, and mindful relationship with the natural surroundings. This approach aims at instilling a sense of responsibility and interconnectedness with the environment.

According to Munene (OI, 2023) educational initiatives within the parish involved programs conducted every six months. The emphasis was on sensitizing people on how to establish a thoughtful relationship with their environment. The mention of educational initiatives being conducted every six months within the parish highlights a structured and periodic approach to promoting environmental awareness and conservation. This approach ensures consistent engagement and reinforcement of key sustainability messages throughout the year. The emphasis on sensitizing people on how to establish a thoughtful relationship with their environment underlines the focus on fostering a deep and mindful connection with nature and the surrounding ecosystem. This emphasis reflects a commitment to instilling a holistic understanding of environmental stewardship within the community.

Nyarire (OI, 2023) confirmed that educational initiatives within the parish included programs conducted every six months. The emphasis was on the importance of sensitizing people about environmental conservation. Nyarire's confirmation of educational programs being conducted every six months within the parish indicates a structured approach to promoting environmental awareness and conservation. This interval allows for periodic engagement and reinforcement of key sustainability messages throughout the year. The emphasis on sensitizing people about the importance of environmental conservation underscores the deliberate effort to raise awareness and advocate for the active participation of parishioners in environmental stewardship. This emphasis signifies a commitment to instilling a deep understanding of environmental responsibility within the community.

According to Javan (OI, 2023), educational initiatives within the parish were conducted quarterly, with a strong emphasis on sensitizing people about the importance of environmental conservation. Quarterly educational initiatives within the parish highlights a regular and consistent approach to promoting environmental

awareness. Conducting education programs every quarter reflects a commitment to ongoing learning and engagement among parishioners. The strong emphasis on sensitizing people about the importance of environmental conservation indicates a strategic focus on raising awareness and promoting active participation in sustainability efforts. By prioritizing education, the parish aims to instill a deeper understanding of the value of environmental stewardship.

Educational initiatives within the parish were conducted yearly, emphasizing the importance of sensitizing people about environmental conservation Valiyaveeyttil (OI, 2023). Yearly educational initiatives within the parish reflect a dedicated commitment to raising awareness about environmental conservation. It indicates that the Church recognizes the significance of continuously educating the parish community on the importance of sustainable practices. The emphasis on sensitizing people about environmental conservation underscores the proactive approach taken by the parish to instill a deeper understanding of ecological stewardship among its members. By prioritizing education, the parish aims to cultivate a culture of environmental consciousness and responsibility.

5.8 Rate at which Catholic Church Hold Seminars on Environmental Conservation Measures

The data presented in Table 12 provides insights into the frequency at which the Catholic Church holds seminars on environmental conservation measures. The frequencies and percentages associated with each interval reveal the varied approaches employed by the Church in disseminating information and promoting environmental awareness.

Table 13: Rate at which Catholic hold Seminars on Environmental Conservation Measures

Rate	Frequency	Percent
Monthly	81	22.6
After 2 Months	51	14.2
After 3 Months	30	8.4
After 4 Months	8	2.2
Weekly	20	5.6
Regularly	52	14.5
Yearly	117	32.6
Total	359	100.0

Monthly seminars, reported by 81(22.6%) of respondents, suggest a concerted effort by the Catholic Church to engage its members in environmental conservation on a regular basis. This aligns with Nwankwo's (2019) knowledge in environmental management and sustainable development, providing potential insights into the effectiveness of monthly seminars in fostering ongoing environmental awareness within religious congregations. Seminars held after two months 51(14.2%) and after three months 30(8.4%) indicate a periodic approach to environmental education. This aligns with Oyekanmi's (2016) work in environmental governance and policy, offering potential insights into the design and impact of such interval-based seminar programs within religious contexts.

The reported frequency of seminars held after four months 8(2.2%) suggests a less frequent, yet still notable, approach to environmental education. Abegaz's (2004) expertise in environmental science and education may provide insights into the potential challenges and benefits of spacing seminars at longer intervals. Weekly seminars, accounting for 20(5.6%), represent a moderate-frequency approach to environmental education within the Catholic Church. Salami's (2013) experience in environmental engineering and sustainable development could offer valuable insights into the design and impact of weekly seminars in promoting consistent environmental awareness.

Regular seminars, reported by 52(14.5%), suggest a commitment to ongoing environmental education. Rosimo (2021), with expertise in environmental planning and management, may offer perspectives on the sustainability and impact of regularly scheduled seminars in religious communities. Yearly seminars, accounting for 117(32.6%), indicate a high-frequency effort by the Catholic Church to educate its members on environmental conservation. Olaniyi (2009), with experience in environmental policy and management, provides insights into the rationale and effectiveness of yearly seminar programs within religious settings.

5.9 Adequacy of the Catholic Church Teachings on Environment Conservation

Table 14 presents the responses regarding the adequacy of Catholic Church teachings on environmental conservation.

Table 14: Adequacy of the Catholic Church Teachings on Environment Conservation

Response	Frequency	Percent
Yes	359	100.0

The data indicates that all respondents (100.0%) answered "yes," affirming the adequacy of the Catholic Church teachings in this regard. This overwhelming consensus among the respondents suggests a high level of satisfaction and agreement within the community regarding the teachings of the Catholic Church on environmental conservation. The fact that every respondent acknowledged the adequacy of these teachings underscores the effectiveness and resonance of the church's messages in addressing environmental concerns. The unanimous positive response may be indicative of the community's trust in the moral and ethical guidance provided by the Catholic Church regarding environmental stewardship. It also reflects a strong alignment between the teachings of the church and the values and beliefs of the community members regarding their responsibility to care for the environment.

The findings presented in chapter five on the Catholic community's environmental conservation efforts connect meaningfully to the Liberation Solidarity Theory. This theory, rooted in Liberation Theology as articulated by Gustavo Gutierrez, emphasizes the need for solidarity with marginalized groups and advocates for transformative actions that address both socio-economic and environmental injustices. In this context, the Catholic community's involvement in conservation, as highlighted in the results, aligns with the theory's core tenet of actively engaging in efforts that promote justice, not just for human communities but for the environment as well.

The Catholic community's emphasis on educating members about environmental stewardship and their active involvement in conservation activities, such as tree planting and protection of water catchment areas, can be viewed through the lens of Liberation Solidarity Theory. These efforts represent a form of environmental justice that mirrors the solidarity with marginalized groups emphasized in Gutierrez's work. By encouraging sustainable lifestyles and discouraging harmful practices like tree cutting, the community is taking transformative action that aligns with the theory's advocacy for the liberation of both humanity and nature from exploitation.

Moreover, the integration of biblical teachings, such as Genesis 2:15 and Psalms 148, reflects a spiritual imperative that connects faith with environmental responsibility. This is akin to the eco-theological insights provided by Pope Francis in *Laudato Si'*, where environmental stewardship is viewed as a moral and spiritual duty. In line with the Liberation Solidarity Theory, the Catholic community's conservation efforts are not merely practical actions but are infused with a deeper theological and ethical commitment to care for creation. The connection between faith and environmental responsibility is reinforced by the community's recognition of their role in fostering eco-consciousness.

Furthermore, the Catholic Church's focus on solidarity with the environment, as evidenced by public awareness campaigns and clean-up activities, reflects the Liberation Solidarity Theory's call for actions that not only address human oppression but also liberate the environment from degradation. The degradation of natural resources disproportionately affects vulnerable communities, a point highlighted by Liberation Theology, and the Catholic community's work helps to mitigate these effects, aligning with the broader goals of social and environmental justice.

In conclusion, the chapter's findings, which emphasize the Catholic community's holistic approach to environmental conservation, reflect the principles of Liberation Solidarity Theory by demonstrating how faith-based initiatives can foster environmental justice and solidarity. The community's efforts not only promote practical conservation measures but also embody a moral and spiritual commitment to protecting the Earth, thus extending the liberative mission of the Church to encompass environmental stewardship. This connection underscores the relevance of both Liberation Theology and eco-theology in addressing contemporary environmental crises.

5.10 Conclusion

This chapter highlighted the significant role of the Catholic community in environmental conservation efforts. The emphasis on educating members about tree planting underscored a concerted effort to raise awareness about environmental stewardship. Active involvement in tree planting initiatives and encouragement of sustainable lifestyles demonstrated a hands-on approach to conservation, supported by theological perspectives. The commitment to protecting water catchment areas

reflects dedication to safeguarding critical ecological zones. Garbage and public awareness campaigns to active participation in clean-up activities, these efforts signify a tangible commitment to preserving the environment. By integrating biblical teachings, such as Genesis 2:15 and Psalms 148, into their conservation endeavours, the parishes underscore the spiritual imperative to care for and protect the Earth.

Additionally, the recognition of the Catholic community's role in discouraging tree cutting underscores a nuanced approach to environmental advocacy. This integrated approach fosters a deep connection between faith and environmental responsibility, inspiring community members to uphold values of stewardship and reverence for creation. Despite challenges, these initiatives demonstrated a holistic approach to nurturing eco-conscious communities guided by both practical action and spiritual principles. Overall, the findings suggest active engagement in promoting ethical environmental practices, warranting further exploration for on-going stewardship.

CHAPTER SIX
BIBLICAL AND THEOLOGICAL JUSTIFICATION OF THE CHURCH
INVOLVEMENT IN ENVIRONMENTAL CONSERVATION IN CHUKA
IGAMBANG'OMBE SUB-COUNTY

6.1 Introduction

This chapter presents the results pertaining to objective three that sought to investigate the biblical and theological justification of the Church involvement in environmental conservation in Chuka Igambang'ombe Sub- County.

6.2 Biblical Teachings on Environment

The presented data above reveals significant insights into the biblical teachings concerning the environment, highlighting key themes and the corresponding emphasis assigned to each. In the exploration of these teachings, a comprehensive analysis emerges, providing a nuanced understanding of the perspectives held by the surveyed individuals

Table 15: Biblical Teachings on Environment

Teachings	Frequency	Percent
Christians Should be God's Steward in Taking Care on Environment	103	28.7
God Love the Environment	160	44.6
Teachings on The Importance of Conserving the Environment	62	17.3
Christians Should avoid Hunting	34	9.5
Total	359	100.0

In the context of the predominant theme surrounding the connection between God's love and the environment, Mwirigi, (2010) offers valuable insights that align with the idea of the natural world as a manifestation of God's love and care. Mwirigi's work emphasizes the divine significance attributed to the environment, reflecting a belief shared by a substantial 160(44.6%) of respondents in the dataset. Kallikatt (OI, 2023) from Chera parish mentioned love and care for all of God's creation as a Biblical Christian teaching. This love extends to the environment, which is seen as a reflection of God's goodness and provision. This principle aligns with the broader ethical framework of environmental stewardship and underscores the moral imperative to honor and preserve the sanctity of all living beings and the natural world. This perspective resonates with the interconnectedness between humanity and the

environment, promoting a compassionate and conscientious approach towards all aspects of God's creation. This principle reflects the ethical duty to extend love and care towards the environment, fostering a sense of responsibility and reverence for the Earth and all living beings inhabiting it. As such, humans are called to be good stewards of the Earth, nurturing and preserving it for future generations. Passages such as Psalm 104:24-25 celebrate God's creation and His provision for all creatures, reinforcing the idea of humans' responsibility to care for the environment with gratitude and reverence.

The perspective of stewardship, highlighted by 103(28.7%) of participants, resonates with the theological stance advocated by Kanyoro, (2001). Kanyoro's work underscores the Christian responsibility to act as stewards entrusted by God in the preservation and nurturing of the environment. This aligns with the prevailing notion in the dataset that positions humans as custodians and emphasizes conscientious care for the environment as a sacred duty. Mbirichi (OI, 2023) from Mbukoni parish, Biblical Christian teachings stress the ethical imperative of environmental stewardship. Humans are called to act justly and compassionately towards the environment, recognizing the interconnectedness of all life. This perspective is reflected in passages like Deuteronomy 22:6-7, which instructs kindness towards animals and the environment, and in teachings such as those found in Isaiah 24:4-6, which warn against human actions that lead to the degradation of the Earth and its consequences. The perspective that the well-being of the environment directly affects the well-being of humanity emphasizes the critical role of a healthy and sustainable environment in ensuring the prosperity and quality of life for individuals and communities.

According Munene (OI, 2023) from Ndagani parish, Biblical Christian teachings emphasize the sacredness of the environment as a creation of God. Humans are entrusted with stewardship over the Earth, as seen in Genesis 2:15, where they are instructed to "till and keep" the Garden of Eden. Furthermore, passages such as Psalm 24:1 affirm that "The earth is the Lord's, and everything in it," highlighting the interconnectedness of humanity with the natural world and the responsibility to treat it with reverence and care. Biblical Christian teachings stress the responsibility of humans to exercise dominion over the Earth responsibly, as highlighted by Javan (OI,

2023) from Kajuki parish. This dominion, as outlined in Genesis 1:28, is not one of exploitation but of stewardship and care. Humans are instructed to "fill the earth and subdue it," recognizing that the Earth ultimately belongs to God, and humans are to care for it as faithful stewards.

The findings emphasized on the importance of conserving the environment, as indicated by 62(17.3%) of respondents, is in accordance with the views expressed by Maluleke, (2005). Maluleke's work emphasizes the inherent value in preserving ecological balance, reflecting an alignment with biblical teachings that underscore the sanctity of creation. Murungi (OI, 2023) from Chuka parish, mentioned that Humans are called to responsibly care for the Earth, recognizing it as a gift from God. This responsibility is reflected in passages like Genesis 1:26, where humans are created in the image of God and given dominion over the Earth, implying a role of caretakers rather than exploiters. Additionally, teachings such as those found in Proverbs 12:10, which speak of the righteous caring for the needs of their animals, extend to the broader principle of caring for all aspects of God's creation. These teachings affirm that the Earth is a divine gift from God to humanity. This understanding sets the foundation for the moral and ethical responsibility of caring for and preserving the environment as an act of gratitude towards the Creator.

The passage in Genesis 1:26 illustrate the concept of human dominion over the Earth. However, this dominion is not synonymous with exploitation but entails a role of caretakers entrusted with the preservation and well-being of God's creation. This implies a responsibility to manage the Earth's resources responsibly and sustainably. The specific directive to avoid hunting, supported by 34(9.5%) of respondents, finds resonance in the ethical stance grounded in religious principles, as discussed by Mwirigi, (2010) which provides additional context for understanding the perspective that refraining from hunting is a means to maintain a harmonious relationship with the environment and adhere to a natural order.

Humans are not separate from nature but are an integral part of it, dependent on its resources for sustenance and livelihood George (OI, 2023). Therefore, the well-being of the environment directly affects the well-being of humanity. This perspective is reflected in passages like Romans 8:22, which speaks of creation groaning as it awaits redemption, suggesting a shared fate between humanity and the natural world.

George's viewpoint underscores that humans are not separate from nature but rather an integral part of it. This concept recognizes the profound dependence of humanity on natural resources for sustenance and livelihood. It highlights the intrinsic connection between humans and the environment, emphasizing their interwoven existence.

Nyarire (OI, 2023) from Mbwiru parish, Biblical Christian teachings emphasize the redemption and renewal of all creation. While acknowledging the brokenness of the world due to human sin, Christianity offers hope for restoration and reconciliation. This hope extends to the environment, as seen in passages like Revelation 21:1-5, which speaks of a new heaven and a new earth where there will be no more tears or suffering. Therefore, Christians are called to work towards environmental justice and restoration, participating in God's ongoing work of renewal in the world. Biblical Christian teachings emphasize that the environment reflects the glory and majesty of God's creation Valiyaveeytil (OI, 2023). The beauty and intricacy of the natural world serve as a testament to God's creative power and wisdom. Therefore, Christians are called to appreciate and protect God's creation, as it is an integral part of His divine plan. Teachings such as those found in Matthew 25:40 also emphasize the importance of caring for the environment as a means of serving and honouring God.

6.2 Christian Teachings on Environment Conservation

The data provided in table on Christian teachings regarding environmental conservation provides valuable insights into the beliefs and actions of the surveyed individuals, shedding light on the intersection between faith and environmental stewardship. A meticulous analysis of the frequencies and percentages associated with each response unveils a nuanced understanding of how Christian teachings influence attitudes and behaviors towards the environment.

Table 16: Christian Teachings on Environment Conservation

	Frequency	Percent
Protecting of Other Living Things in Our Environment	40	11.1
Planting Trees	160	44.5
Protecting Water Catchment Areas	25	7.0
Doing Harm to the Environment Means Doing to Humanity	11	3.1
Conserving Environment for the Glory of God	81	22.6
Create Awareness on the Importance of Environment	42	11.7
Total	359	100.0

A predominant theme in the data is the active practice of planting trees, embraced by 160(44.5%) of respondents. This work aligns with the perspectives presented by Hope and Jones (2014), who emphasize stewardship and the responsibility to care for God's creation as foundational principles in Christianity. The act of planting trees is seen as a tangible expression of this stewardship, contributing to environmental sustainability and the preservation of biodiversity. Conserving the environment for the glory of God emerges as another significant Christian teaching, resonating with 81(22.6%) of respondents. This perspective aligns with the work of Dampier (2003), who discusses the theological foundation that positions environmental conservation as a means of honoring the divine and recognizing the intrinsic value of creation. It suggests a holistic understanding that caring for the environment is not only a practical necessity but also a spiritual duty.

The protection of other living things in the environment is highlighted by 40(11.1%) of respondents, reflecting a Christian ethos that extends compassion and care to all living beings. This perspective aligns with the biblical concept of stewardship, acknowledging the interconnectedness of all elements in the created order (Jenkins, 2009). Creating awareness on the importance of the environment is embraced by 42(11.7%) of respondents, indicating recognition of the role of education and advocacy in promoting environmental consciousness. This aligns with the Christian teaching discussed by Dreyer (2021), emphasizing the spread of knowledge and understanding about the ethical imperative to care for the environment.

Protecting water catchment areas, acknowledged by 25(7.0%) of respondents, underscores the recognition within Christian teachings of the importance of safeguarding water resources. This perspective is in line with the work of Hope and Jones (2014), reflecting an understanding that water is a precious and interconnected element of the environment, essential for both ecological balance and human well-being. A smaller percentage, 11(3.1%), subscribes to the notion that doing harm to the environment equates to doing harm to humanity. This ethical perspective aligns with the insights discussed by Dampier (2003), reflecting an understanding of the interconnectedness between environmental health and human well-being, emphasizing the responsibility to avoid actions that negatively impact both.

6.3 Bible Verses that Sensitize People on Environmental Conservation

Genesis 2:15 highlights the responsibility of humans to care for and cultivate the earth, a point emphasized by Munene (OI, 2023) from Ndagani parish. Munene's perspective from Ndagani parish provides a profound insight into the Biblical passage in Genesis 2:15, which highlights the responsibility of humans to care for and cultivate the earth. This perspective aligns with the ethical framework of environmental stewardship and underscores the moral imperative to responsibly manage and nurture the resources of the Earth. Genesis 2:15 emphasizes the divine charge for humans to tend the garden a symbolic representation of the Earth and its natural resources. This passage encapsulates the concept of stewardship and highlights the entrusted responsibility of caring for and cultivating the Earth. Psalm 104:24-25 as mentioned by Munene (OI, 2023) emphasizes the vastness and abundance of the earth as evidence of God's creation. This perspective fosters a deep appreciation for the richness and diversity of the natural world, aligning with the Christian teaching of recognizing and honoring God's handiwork in the environment.

Javan (OI, 2023) from Kajuki parish mentioned Psalms 24:1, emphasizing the Lord's ownership of the earth and the importance of stewardship. Psalms 24:1, emphasizes the Lord's ownership of the earth and the significance of stewardship. This perspective aligns with the ethical framework of environmental stewardship and underscores the moral imperative to responsibly oversee and care for the Earth as stewards of God's creation. Job 12:7-10, as cited by Javan (OI, 2023) highlight the significance of the natural world and the role of animals and birds in teaching humans. Job 12:7-10 acknowledges the wisdom present in the natural world, particularly through the behaviors and interactions of animals and birds. This perspective aligns with the Christian teaching that emphasizes the lessons and wisdom that can be gleaned from observing and reflecting on the natural world.

Additionally, Valiyaveeytil (OI, 2023), representing Magumoni parish, quoted Revelation 11:18, underscoring the need to protect and preserve the earth as God's creation. This perspective aligns with the ethical framework of environmental preservation and emphasizes the moral and spiritual duty to safeguard the natural world as a manifestation of divine creation. The quotation of Revelation 11:18 underscores the divine calling to preserve the Earth, as it is an integral part of God's

creation. This passage highlights the sanctity and value of the natural world within a spiritual context, signifying the moral imperative to protect and steward the environment. Valiyaveeytil (OI, 2023) referred to Leviticus 25:23-24, underscoring the concept of the land belonging to the Lord and the importance of treating it with respect. This perspective aligns with the Christian teaching on stewardship, acknowledging that the Earth and its resources are ultimately under divine authority, and, therefore, should be treated with reverence and ethical responsibility.

According to Murungi (OI, 2023), from Chuka parish, who cited Colossians 1:16-17, showcased the supreme authority of Christ as the sustainer and preserver of all creation. Colossians 1:16-17, sheds light on the supreme authority of Christ as the sustainer and preserver of all creation. It highlights His central role in the creation and maintenance of the universe, underscoring His supreme power and sovereignty over all aspects of existence. This biblical passage underscores the pivotal role of Christ in upholding the universe and emphasizes the interconnectedness between the divine and the natural world. Romans 1:20 was mentioned by Murungi (OI, 2023) showcasing the qualities of creation as a reflection of God's divine nature. Romans 1:20 beautifully portrays creation as a reflection of God's divine nature, instilling a sense of reverence, appreciation, and responsibility towards the environment. This reflection fosters a holistic approach to environmental stewardship, integrating spiritual insights with ecological awareness to promote the care and conservation of God's creation for the benefit of present and future generations.

Isaiah 24:4-6 was mentioned by George (OI, 2023) from Kanyaki parish, underscoring the consequences of environmental degradation and the call to care for the earth. This biblical passage sheds light on the far-reaching impacts of human actions on the environment and calls for responsible stewardship of the Earth. Isaiah 24:4-6 vividly portrays the devastating consequences of environmental degradation. It highlights the pervasive effects of human activities on the natural world, depicting a planet in distress due to the actions of its inhabitants. George's allusion to Isaiah 24:4-6 underscores the ethical call to care for the Earth. It articulates the moral responsibility to protect and preserve the environment, emphasizing the need for conscientious and compassionate environmental stewardship. George (OI, 2023) alluded to Isaiah 40:12, emphasizing the vastness and intricate design of the earth as a

testament to God's wisdom. Isaiah 40:12 showcases the vastness and intricate design of the earth, drawing attention to the boundlessness and complexity of the natural world as a testament to God's divine wisdom. This perspective fosters a deep reverence for the Earth's diverse ecosystems and geological marvels, inviting individuals to marvel at God's craftsmanship displayed through creation.

Kallikatt (OI, 2023) from Chera parish referred to Romans 8:19-21, depicting creation's longing for redemption and the role of humankind in environmental stewardship. This biblical passage signifies the interconnectedness between the natural world and human responsibility to care for the Earth. The passage in Romans 8:19-21 eloquently illustrates creation's anticipation for redemption. It portrays nature's longing for renewal and restoration, symbolizing the interconnected relationship between all aspects of creation and the divine plan for reconciliation. Kallikatt's reference to Romans 8:19-21 underscores humanity's crucial role in environmental stewardship. It emphasizes the moral and spiritual duty of humankind to act as responsible caretakers of the Earth, working towards the restoration and preservation of the natural world. According to Kallikatt (OI, 2023) Job 37:14-16, highlight the elements of nature as indications of God's mastery and control over the environment. This biblical passage reflects the grandeur of the natural world and the divine order present in creation, aligning with the theme of environmental stewardship in the Christian faith.

Ecclesiastes 3:19-20 emphasizes the interconnectedness of humans and the earth, highlighting the importance of responsible ecological management, as mentioned by Mbirichi (OI, 2023) from Mbukoni parish. Ecclesiastes 3:19-20 as eluded by Mbirichi emphasizing the interconnectedness of humans and the earth and highlighting the importance of responsible ecological management. This biblical passage illuminates the harmonious relationship between humanity and the natural world, advocating for conscientious stewardship of the environment. Further, Mbirichi (OI, 2023) referred to Matthew 6:26, depicting God's care for the birds of the air and conveying the idea of His provision for all living creatures. This biblical passage captures the profound concept of divine care for the natural world, emphasizing God's role as the sustainer and provider for all living beings. Here's an in-depth examination of how Matthew 6:26 resonates with the theme of environmental stewardship in the Christian faith

Nyarire (OI, 2023) from Mbwiru parish cited Proverbs 12:10, stressing the care for and responsible treatment of animals and the natural world. Each of these verses resonates with the broader theme of environmental conservation as taught in the Christian faith. Additionally, Nyarire (OI, 2023) cited Deuteronomy 11:13-14, stressing the importance of the land receiving its due portion of rain, highlighting the interconnectedness of human actions and the environment.

6.4 Theological Basis of the Church Involvement in Environment Conservation

According to Munene (OI, 2023) from Ndagani parish, significant theological bases existed for church involvement in environmental conservation, stemming from the fundamental concept of stewardship over God's creation. The theological basis for the Church's involvement in environmental conservation lies in the Biblical concept of stewardship over God's creation, as demonstrated in Genesis 2:15 (Munene, OI, 2023). Munene rightly points to Genesis 2:15 as a significant foundational scripture that underscores the concept of stewardship over God's creation. This verse, which highlights God's directive for humanity to "take care" of the Earth, serves as a theological cornerstone for environmental stewardship, emphasizing the responsibility to preserve and protect the natural world. By drawing attention to Genesis 2:15, Munene highlights the presence of a clear biblical imperative for environmental stewardship. In doing so, he reaffirms the theological basis for church involvement in environmental conservation, anchoring it in the intrinsic guidance provided by the Scriptures.

According to Javan (OI, 2023) from Kajuki parish stated that the Church's involvement in environmental conservation was theologically grounded in the understanding of the earth as Lord's creation, and the responsibility entrusted to humans to care for it. Javan underscores the fundamental theological principle of the earth as the Lord's creation. This foundational belief emphasizes the divine origin and ownership of the natural world, instilling a sense of reverence and sacredness for creation. This perspective forms the basis for recognizing the intrinsic value of the environment within the framework of Christian theology. Javan (OI, 2023) mentioned that the Church's involvement in environmental conservation was rooted in the understanding of the earth's ownership by the Lord, as depicted in Psalms 24. Javan's emphasis on the responsibility entrusted to humans to care for the earth

reflects the concept of stewardship ingrained in Christian teachings. It underscores the ethical and moral obligation of humanity to actively engage in the preservation and sustainable management of the environment.

The theological basis of the Church's involvement in environmental conservation lies in the acknowledgment of the earth as a divine creation, to be preserved and protected by humankind, as affirmed by Valiyaveeyttil (OI, 2023). He further stated that the theological basis for the Church's involvement in environmental conservation was founded on the recognition of earth as God's creation, as emphasized in Revelation 11:18. Valiyaveeyttil's emphasis on viewing the earth as a divine creation underscores the intrinsic value and sacredness attributed to the natural world within Christian theology. This acknowledgment fosters a sense of reverence, gratitude, and responsibility towards the environment, aligning with the ethos of environmental stewardship rooted in faith principles. By affirming the role of humankind in preserving and protecting the earth, Jose highlights the concept of stewardship delineated in Genesis. This perspective underscores the ethical duty entrusted to humanity to act as custodians of God's creation, promoting the sustainable use of resources and the conservation of biodiversity.

Murungi (OI, 2023), speaking for Chuka parish, emphasized that the theological basis for the Church's involvement in environmental conservation was rooted in belief in Christ as the sustainer and preserver of all creation. According to Murungi (OI, 2023), Chuka Parish, the theological basis for the Church's involvement in environmental conservation was based on the authority of Christ as the sustainer and preserver of all creation, as outlined in Colossians 1:16-17. Murungi's assertion of Christ as the sustainer and preserver of all creation underscores the pivotal role of Christ in the maintenance and well-being of the natural world. This perspective aligns with the theological understanding of Christ's sovereignty over creation, promoting a sense of accountability in caring for the environment as an expression of reverence for the sustainer of all life. Murungi's reference to Colossians 1:16-17 as the theological basis for the Church's involvement in environmental conservation reaffirms the scriptural mandate for responsible stewardship of creation. This biblical passage emphasizes Christ's role in the creation and maintenance of the universe, highlighting the divine authority underlying the call to preserve and protect the environment.

From Kanyaki parish, George (OI, 2023) described the theological basis for the Church's involvement in environmental conservation as an acknowledgment of the divine mandate to care for the earth and all its inhabitants. George (OI, 2023) stressed that the theological basis for the Church's involvement in environmental conservation arose from the divine mandate to care for the earth, as depicted in Isaiah 24:4-6. George underscores the intrinsic connection between the Church's involvement in environmental conservation and the acknowledgment of a divine mandate to care for the earth. This theological perspective highlights the ethical imperative placed on humanity to safeguard the environment and nurture the delicate balance of nature as part of their spiritual. By stressing the need to care not only for the earth but also for its inhabitants, George extends the theological basis of environmental conservation to include the protection of biodiversity and the well-being of all living creatures. This holistic approach reflects the interconnectedness of all creation and the stewardship responsibilities humanity bears towards fellow living beings.

Kallikatt (OI, 2023) from Chera parish underlined the theological basis of the Church's involvement in environmental conservation, pointing to the redemption and restoration of all as a theological. Additionally, Kallikatt (OI, 2023) further emphasized that the theology of the Church's involvement in environmental conservation was rooted in the longing for redemption and the role of humankind in environmental stewardship, described in Romans 8:19-21. The perspective that the Church's involvement in environmental conservation is intrinsically linked to the concepts of redemption and restoration suggests that environmental stewardship is not merely a duty but a deeper calling to participate in the renewal and healing of all creation, reflecting the redemptive mission central to Christian faith. By highlighting the role of humankind in environmental stewardship, Kallikatt acknowledged the moral responsibility entrusted to individuals in caring for the environment. This perspective echoes the biblical mandate for humans to exercise responsible dominion over the earth, nurturing and preserving God's creation as active agents of environmental care.

The theological basis for the Church's involvement in environmental conservation lay in the interconnectedness of humans and the earth, and the responsibility to manage it responsibly Mbirichi (OI, 2023) from Mbukoni parish. Additionally, Mbirichi (OI,

2023) highlighted that the theological basis for the Church's involvement in environmental conservation originated from the interconnectedness of humans and the earth, as depicted in Ecclesiastes 3:19-20. Mbirichi's perspective emphasizes the interconnectedness between humanity and the earth, and the inherent responsibility to manage it conscientiously within the theological context. His citation of Ecclesiastes 3:19-20 further solidifies the theological basis for the Church's active engagement in environmental conservation. This comprehensive array of theological viewpoints underscores the multifaceted and spiritually grounded nature of environmental stewardship within the Christian faith, providing a rich framework for the integration of theological principles with ecological action.

Finally, Nyarire (OI, 2023) from Mbwiru parish described the theological basis of the Church's involvement in environmental conservation as a reflection of the responsibility to care for and responsibly treat animals and the natural world. Nyarire (OI, 2023) described the theological basis of the Church's involvement in environmental conservation as reflected in the care for and responsible treatment of animals and the natural world, as conveyed in Proverbs 12:10. Nyarire's emphasis on the theological basis for the Church's involvement in environmental conservation, centered on the responsible treatment of animals and the natural world, resonates deeply with the ethical imperative to care for the entirety of God's creation. By referencing Proverbs 12:10, Nyarire underscores the scriptural foundation for the compassionate stewardship of animals and the natural environment within the theological framework of the Christian faith. This theological perspective adds another layer to the multifaceted understanding of environmental conservation within religious contexts, emphasizing the interconnectedness, respect, and responsibility towards all aspects of creation.

6.5 Ways in Which Catholic Church Embrace Biblical Stewardship in Environmental Conservation and Bible Verses that Sensitize People on Environmental Conservation

Catholic Church in the parish engages in garbage collection in towns and actively participates in tree planting, demonstrating a commitment to environmental stewardship Murungi (OI, 2023). Murungi's observation of the Catholic Church's active engagement in garbage collection and tree planting demonstrates a tangible

commitment to environmental stewardship within the parish. These initiatives not only contribute to the immediate improvement of the local environment but also signify a proactive approach towards sustaining the ecological balance. Such practical efforts are crucial for fostering a culture of environmental responsibility within the community. Genesis 2:15 was cited as a commonly used Bible verse to sensitize people on environmental conservation during these initiatives. However, Murungi acknowledged challenges in implementing these measures, citing uncooperativeness and laxity among Christians. The citation of Genesis 2:15 as a commonly used Bible verse to sensitize people on environmental conservation during these initiatives signify the integration of biblical teachings into the parish's environmental endeavors. By grounding their actions in this verse, the parish reaffirms its commitment to aligning environmental stewardship with spiritual principles, emphasizing the divine mandate to care for and protect the Earth.

George (OI, 2023) indicated that practical measures implemented by the parish include creating public awareness on environmental conservation. This emphasizes the importance of education and outreach in nurturing a culture of environmental responsibility within the community. Moreover, the active participation in volunteer cleanup activities signifies a hands-on approach to environmental stewardship, fostering community engagement and demonstration of tangible commitment to preserving the environment. Genesis 2:15 was identified as a key Bible verse commonly used to sensitize people on environmental conservation, emphasizing the biblical roots of their initiatives. This verse underscores the role of humankind as stewards of the Earth, emphasizing the responsibility to care for and protect the natural world. By anchoring their initiatives in this verse, the parish aligns their environmental actions with biblical teachings, instilling a sense of reverence for the environment and the divine mandate to nurture and preserve God's creation.

Kallikatt (OI, 2023) mentioned that Practical measures involved active participation in volunteer cleanup activities, this demonstrates a hands-on approach to environmental stewardship. He referenced Psalm 65:9-13 as a fundamental Bible verse utilized to raise awareness about environmental conservation practices, establishing a solid scriptural foundation for their conservation efforts. Kallikatt's citation of Psalm 65:9-13 reflects a powerful association between biblical teachings

and environmental conservation. This passage celebrates the abundant blessings of the earth, emphasizing God's care for the land and its natural resources. By using this verse to inspire environmental awareness, Kallikatt connects the parish's conservation initiatives to the scriptural exhortation to value and steward the Earth's resources.

Practical measures implemented by the parish involve active participation in garbage collection in towns and tree planting initiatives, as mentioned by Mbirichi (OI, 2023). These activities showcase a commitment to practical environmental stewardship within the community. The active participation in garbage collection not only contributes to a cleaner and healthier community but also addresses the issue of waste management, which is essential for environmental hygiene and pollution control. Concurrently, the tree planting initiatives align with conservation efforts aimed at preserving and enhancing the local ecosystem. Genesis 2:15 was cited as a commonly used Bible verse to sensitize people on environmental conservation, grounding their initiatives in biblical teachings. This verse underscores the concept of stewardship, emphasizing humankind's responsibility to care for and protect the Earth. By anchoring their initiatives in Genesis 2:15, the parish integrates its environmental endeavors with biblical teachings, emphasizing the divine mandate for humanity to nurture and preserve the natural world.

Munene (OI, 2023) mentioned that practical measures involved the active elimination of tree cutting, prevention of soil erosion, and campaigns highlighting the benefits of conserving the environment. These activities showcase a commitment to practical environmental stewardship within the community. Additionally, these initiatives demonstrate a proactive approach to sustainability and environmental stewardship within the community. By preventing tree cutting, the parish promotes forest preservation, which is vital for maintaining biodiversity and combating climate change. Soil erosion prevention measures help in preserving fertile land and preventing ecological degradation. The educational campaigns contribute to raising awareness and fostering a culture of environmental responsibility among community members. Genesis 2:15 was cited as a commonly used Bible verse to sensitize people on environmental conservation, grounding their initiatives in biblical teachings. This verse underscores the concept of stewardship, highlighting the responsibility of humanity to care for and protect the Earth. By referencing Genesis 2:15, the parish

links its environmental conservation initiatives to biblical teachings, emphasizing the divine mandate to nurture and preserve God's creation. By aligning their actions with this verse, the parish instills a sense of reverence for the environment and promotes a holistic approach to sustainability guided by faith.

Nyarire (OI, 2023) indicated that practical measures implemented by the parish involved active participation in environmental conservation, particularly through tree planting initiatives. This participation reflects the parish's commitment to tangible actions that contribute to ecological sustainability and the preservation of natural resources. Tree planting initiatives play a significant role in combating deforestation, promoting biodiversity, and mitigating climate change by sequestering carbon dioxide. Additionally, these activities contribute to the beautification of the environment and restoration of degraded ecosystems. 1st Corinthians 4:2 and Leviticus 25:23-24 were cited as key Bible verses used to sensitize people on environmental conservation, connecting their initiatives to biblical teachings. 1st Corinthians 4:2 underscores the concept of stewardship and the responsibility of stewards to be found faithful. Leviticus 25:23-24 discusses the idea of being strangers and sojourners on the Earth, emphasizing the respect for the land as an inheritance from the Lord. These verses align with the principles of caring for the Earth, reflecting the efforts of the parish to integrate their environmental actions with spiritual and ethical guidance from the Bible. The parish's active promotion of environmental conservation through practical measures such as tree planting initiatives, coupled with the integration of Biblical teachings, demonstrates a comprehensive approach to nurturing an eco-conscious community. This holistic approach fosters a deep connection between faith, environmental stewardship, and sustainable practices, inspiring community members to uphold the values of environmental responsibility and conservation based on their spiritual beliefs.

Javan (OI, 2023) mentioned practical measures implemented by the parish involve average participation in tree planting and the protection of water catchment areas. Genesis 2:15 and Romans 8:18-25 are cited as key Bible verses used to sensitize people on environmental conservation, connecting their initiatives to biblical teachings. From Javan (OI, 2023) highlights on practical measures implemented by the parish which involved active participation in tree planting activities and the

protection of water catchment areas, this signifies an on-the-ground commitment to environmental conservation within the local community. Tree planting helps in biodiversity conservation, carbon sequestration, and soil erosion prevention. Additionally, safeguarding water catchment areas is crucial for maintaining clean water sources, preserving ecosystems, and ensuring sustainable water supply for both people and wildlife. Biblical Verses Used for Environmental Sensitization: Genesis 2:15 and Romans 8:18-25 were cited by Javan (OI, 2023) as key Bible verses used to sensitize people on environmental conservation. These verses carry profound meanings related to stewardship and the interconnectedness of all creation. Genesis 2:15 reinforces the responsibility of humankind to care for and protect the Earth, highlighting the concept of stewardship. Romans 8:18-25 reflects the anticipation of creation's restoration and liberation from decay, emphasizing the harmony between God's creation and humanity's role in preserving it. Connection to Biblical Teachings: By linking their environmental initiatives to these foundational biblical teachings, the parish demonstrates a holistic approach to environmental stewardship. The use of Genesis 2:15 highlights the divine mandate for humans to care for the Earth, while Romans 8:18-25 emphasizes the hope for the redemption and restoration of all creation. These verses inspire a sense of reverence for nature and encourage proactive conservation efforts rooted in spiritual beliefs. Integrated Approach to Environmental Conservation: Javan's mention of tree planting and water catchment protection in conjunction with biblical teachings underscores an integrated approach to environmental conservation that blends practical actions with spiritual principles. This integration fosters a deeper connection between faith and environmental responsibility, inspiring community members to engage in sustainable practices and uphold the values of stewardship and reverence for creation.

Valiyaveeyttil (OI, 2023) indicated that practical measures implemented by the parish involve advocating for preservation services, specifically focusing on protecting water catchment areas and controlling various forms of pollution. Psalms 148 and Psalms 8:18-25 are cited as key Bible verses used to sensitize people on environmental conservation, linking their initiatives to biblical teachings. Valiyavveyttil (OI, 2023) mentioned that the parish has implemented practical measures involving advocating for preservation services, with a specific focus on protecting water catchment areas and controlling various forms of pollution. This demonstrates a proactive approach

towards environmental conservation within the parish. It reflects a commitment to addressing localized environmental challenges, promoting sustainability, and safeguarding natural resources for future generations.

6.6 Ways of Participating in the Care for Environment

The following section explores various ways individuals actively participate in the care for the environment, as outlined in Table 17. This table provides a comprehensive overview of the frequency and percentage distribution of different environmental care practices among the surveyed population, encompassing key actions such as planting trees, protecting water catchment areas, well disposal of wastes, digging terraces, recycling, reducing, and reusing, as well as protecting rivers.

Table 17: Ways of Participating in the Care for Environment

Way	Frequency	Percent
Planting Trees	131	36.5
Protection of Water Catchment Areas	109	30.4
Proper disposal of wastes	20	5.6
Digging Terraces	82	22.8
Recycling, Reducing and Reusing	11	3.1
Protecting Rivers	6	1.7
Total	359	100.0

Exploring the ways in which individuals actively participate in caring for the environment, results revealed a diverse range of actions. Planting trees emerges as the most prevalent method, with 131(36.5%) of respondents actively engaged in afforestation efforts. These findings align with the work of Jenkins (2013), who emphasizes the critical role trees play in maintaining ecological balance and mitigating the impacts of deforestation. The protection of water catchment areas stands out as another significant avenue of participation, with 109(30.4%) of respondents actively involved in safeguarding these vital ecosystems. This observation resonates with the research conducted by Moo (2006), underscoring an understanding of the interconnectedness between water resources and environmental health, emphasizing the importance of preserving water catchment areas.

Digging terraces, identified by 82(22.8%) of respondents, represents an on-the-ground approach to soil conservation. This method aligns with the principles discussed by Kalu (2017), recognizing the significance of sustainable land management practices in

preventing soil erosion and maintaining agricultural productivity. The responsible disposal of wastes, acknowledged by 20(5.6%) of respondents, signifies a conscientious effort to address the environmental impact of waste generation. These findings are consistent with the insights provided by Tarakeshwar *et al.* (2001), emphasizing the importance of waste management practices in mitigating pollution and promoting environmental sustainability.

A smaller percentage of respondents, 11(3.1%), expressed engagement in recycling, reducing, and reusing materials. These actions are in line with the sustainable consumption patterns discussed by Jenkins (2013), who highlights the environmental benefits of minimizing waste through recycling and reusing. Protecting rivers, identified by 6(1.7%) of respondents, emphasizes the significance of preserving water bodies and maintaining their ecological integrity. This finding is in agreement with the work of Moo (2006), underlining the importance of safeguarding water resources within the broader context of environmental care.

Murungi (OI, 2023) from Chuka parish, mentioned that the Catholic Church embraces Biblical stewardship in environmental conservation through its emphasis on the principles of integral ecology and solidarity. The Church recognizes the interconnectedness of environmental, social, and economic issues and emphasizes the need for holistic solutions that promote the well-being of both people and the planet. This is reflected in initiatives such as environmental education programs, sustainable development projects, and advocacy efforts aimed at addressing the root causes of environmental degradation. By promoting a culture of stewardship and responsibility towards creation, the Catholic Church seeks to fulfill its mission of promoting the dignity of all life and safeguarding God's gift of creation.

The Catholic Church embraces Biblical stewardship in environmental conservation through its teachings on the sacredness of creation and the dignity of all life George (OI, 2023) from Kanyaki Parish. The Church emphasizes the inherent value of the natural world and the responsibility of humans to care for it as stewards of God's creation. This is reflected in initiatives such as environmental advocacy, sustainable development projects, and the promotion of eco-friendly practices within parishes and communities. By integrating ecological concerns into its moral teachings and social

justice agenda, the Catholic Church seeks to inspire individuals and communities to live in harmony with creation and to work towards a more sustainable and just world. According to Kallikatt (OI, 2023) from Chera parish, the Catholic Church embraces Biblical stewardship in environmental conservation through its teachings on the common good and the preferential option for the poor. The Church recognizes that environmental degradation disproportionately affects the most vulnerable members of society and emphasizes the need for solidarity and justice in addressing environmental issues. This is reflected in initiatives such as sustainable development projects, environmental advocacy campaigns, and the promotion of eco-friendly practices within parishes and communities. By advocating for the rights of future generations and the preservation of God's creation, the Catholic Church seeks to fulfill its mission of promoting human dignity and the common good. Mbirichi (OI, 2023) from Mbukoni parish, the Catholic Church embraces Biblical stewardship in environmental conservation through its teachings on the interconnectedness of all creation and the responsibility of humans to care for the Earth as stewards of God's gift. The Church emphasizes the need for ecological conversion and a renewed sense of responsibility towards creation. This is reflected in initiatives such as environmental education programs, sustainable development projects, and the promotion of eco-friendly practices within parishes and communities. By promoting a culture of solidarity and stewardship, the Catholic Church seeks to inspire individuals and communities to live in harmony with creation and to work towards a more sustainable and just world.

The Catholic Church embraces Biblical stewardship in environmental conservation through its teachings on the dignity of human labor and the promotion of sustainable development Nyarire (OI, 2023) from Mbwiru parish. The Church recognizes the importance of caring for the environment as an integral part of promoting human flourishing and social justice. This is reflected in initiatives such as sustainable agriculture projects, environmental advocacy campaigns, and the promotion of eco-friendly practices within parishes and communities. By advocating for the rights of future generations and the preservation of God's creation, the Catholic Church seeks to fulfill its mission of promoting human dignity and the common good. Munene (OI, 2023) from Ndagani parish mentioned that the Catholic Church embraces Biblical stewardship in environmental conservation through various initiatives and teachings. One way is through the promotion of ecological awareness and education among its

members. The Church emphasizes the interconnectedness of all creation and the responsibility of humans to care for the environment as stewards of God's gift. Additionally, the Catholic Church advocates for sustainable practices that promote the well-being of both people and the planet, such as supporting renewable energy sources and promoting conservation efforts. Through its teachings and actions, the Church seeks to instill a sense of reverence and respect for the Earth as a sacred trust from God.

The Catholic Church accepts Biblical stewardship in environmental protection by incorporating ecological issues into its moral teachings and social justice agenda, claims Javan (OI, 2023) from Kajuki parish. The Church places a strong emphasis on the inherent worth of all creation as well as the necessity of treating Earth's resources with care. Pope Francis' encyclical "Laudato Si'," which advocates for a holistic ecology that acknowledges the interdependence of social, economic, and environmental crises, is one document that reflects this. In addition, the Church actively participates in community-based programs and lobbying that support sustainable development and environmental preservation. By addressing the root causes of environmental degradation and promoting ecological justice, the Catholic Church seeks to fulfill its mandate to care for God's creation and protect the dignity of all life.

The Catholic Church embraces Biblical stewardship in environmental conservation through its teachings on solidarity and the common good Valiyaveeytil (OI, 2023) from Magumoni parish. The Church recognizes that caring for the environment is not just a matter of personal responsibility but a moral imperative rooted in love for God and neighbor. Its emphasis on social and environmental justice, which advocates for unity with the underprivileged and disenfranchised who suffer the most from environmental degradation, is a reflection of this. The Catholic Church also supports sustainable development strategies that give equal weight to the needs of the current and future generations, acknowledging that the Earth is a common resource that God has entrusted to humankind. The Church aims to uplift people and communities to live in peace with the natural world and to work toward a more equitable and sustainable future via its teachings and deeds.

6.7 Challenges Faced in the Process of Conserving the Environment

The data presented in figure 4 below unveils a comprehensive overview of the challenges encountered in the endeavor to conserve the environment, shedding light on the prevalent obstacles that impede these efforts. Through a thorough examination of the frequencies and percentages associated with each challenge, a nuanced understanding of the complexities surrounding environmental conservation emerges.

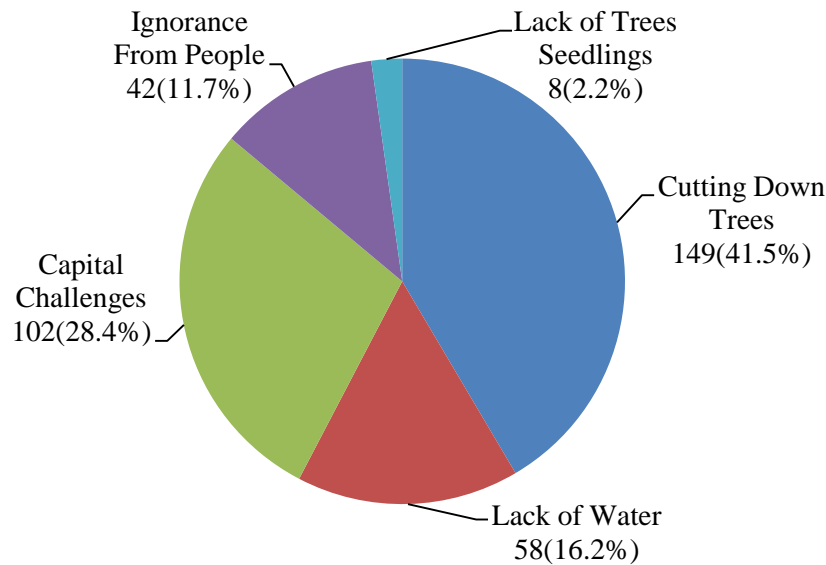


Figure 5: Challenges Faced in the Process of Conserving the Environment

The most prominent challenge, accounting for 149(41.5%) of responses, was the widespread issue of cutting down trees. This signifies a pervasive threat to environmental preservation, reflecting a concerning trend of deforestation that jeopardizes the ecological balance (Magezi, 2017). The substantial frequency of this challenge underscores the urgent need for interventions aimed at curbing the deleterious impact of tree felling on the environment. Another significant impediment, highlighted by 102(28.4%) of respondents, is the presence of capital challenges. This category encapsulates financial constraints that hinder conservation initiatives, pointing to a systemic issue that requires strategic solutions and resource mobilization (Muthuri *et al.*, 2009). The substantial percentage underscores the critical role financial support plays in overcoming barriers to effective environmental conservation.

Lack of water emerges as a notable challenge, constituting 58(16.2%) of responses. This issue reflects a concerning imbalance in natural resources, with implications for

both human well-being and the broader ecosystem (Ogbonnaya, 2012). Addressing this challenge necessitates a holistic approach that considers the interconnectedness of environmental and societal needs. Ignorance from people, identified by 42(11.7%) of respondents, poses a distinctive challenge rooted in a lack of awareness or understanding of the importance of conservation efforts. This aligns with the work of (Tarakeshwar, 2001) that underscores the imperative of education and advocacy to foster a collective consciousness regarding environmental issues. Additionally, the results revealed a more specific challenge pertaining to the scarcity of tree seedlings, acknowledged by 8(2.2%) of respondents. This is supported by the findings of (Horrell, 2015) that underscore the importance of initiatives aimed at promoting afforestation and reforestation to counteract the adverse effects of deforestation

6.8 Participation in the Care for Environment

The data presented in figure 6 provides valuable insights into the level of engagement and the diverse ways in which individuals contribute to environmental conservation. Through a meticulous examination of the frequencies and percentages associated with each response, a comprehensive understanding of the extent and methods of participation emerges.

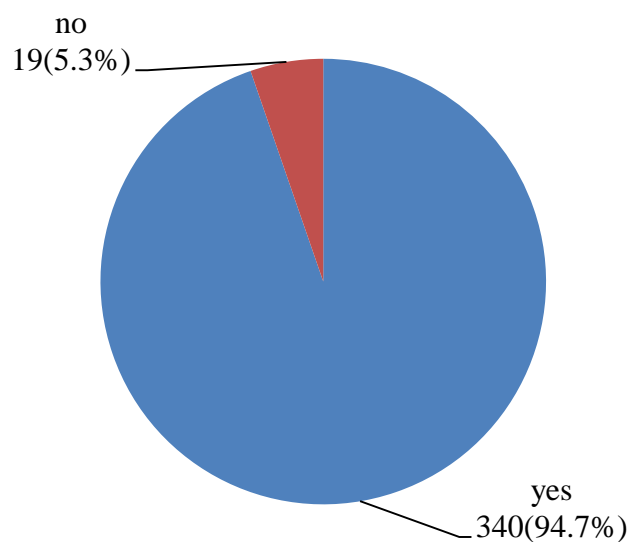


Figure 6: Participation in the Care for Environment

In response to the inquiry about participation, an overwhelming majority, constituting 340(94.7%) of respondents, expressed active involvement in caring for the environment. This resounding affirmation underscores a commendable commitment within the surveyed population towards environmental stewardship. However, a

notable 19(5.3%) acknowledged non-participation, highlighting a segment that may require targeted efforts to raise awareness and encourage engagement in environmental conservation initiatives.

6.9 Distribution of the Frequency of Environmental Conservation Teachings by the Clergy of the Catholic Church in Chuka Igambang'ombe Sub-County

The data on the rate at which the clergy offer teachings on environmental conservation reveals a diverse pattern of engagement within the Catholic Church community.

Table 18: Distribution of the Teachings on Environmental Conservation

Rate	Frequency	Percent
Monthly	61	17.0
After 2 Months	27	7.5
After 3 Months	8	2.2
After 4 Months	20	5.6
Weekly	31	8.6
Semi Annually	75	20.9
Yearly	137	38.2
Total	359	100.0

A considerable 137(38.2%) of respondents reported receiving teachings on a yearly basis, indicating a high frequency of environmental education sessions. This aligns with the theological perspective of Keller (2023), who emphasizes the dynamic and ever-evolving nature of ecological discourse. Furthermore, 75(20.9%) of respondents receive teachings semi-annually, suggesting a periodic approach to environmental education. This resonates with the ecological and theological interconnectedness highlighted by Guth *et al.* (1995), indicating that semi-annual teachings provide opportunities for deep reflection and integration of environmental consciousness into spiritual practices. In contrast, 31(8.6%) reported receiving teachings on a weekly basis. This aligns with the perspective of Barry (2006), who suggests that weekly teachings could serve as a platform for comprehensive discussions on the global role of the Catholic Church in environmental stewardship, considering broader ecological concerns.

Additionally, 61(17.0%) of respondents reported monthly teachings, reflecting a consistent and regular approach to environmental education. This aligns with Tomuseni's (2018) theological approach, emphasizing ongoing reconciliation and

continuous reflection. The varied teaching frequencies underscore the diverse needs and approaches within different congregations. Mwamba's (2019) expertise in environmental ethics and theology would likely appreciate this diversity, recognizing the importance of tailoring teaching frequencies to address the unique ecological challenges faced by each community.

The findings from the chapter six on biblical and theological justification of the Church involvement in environmental conservation align well with the Liberation Solidarity Theory discussed in the theoretical framework. This theory emphasizes the liberation of both marginalized human communities and the environment from exploitation. The chapter's insights about the Christian duty of environmental stewardship, rooted in divine love, align with the core tenets of Liberation Solidarity Theory, which advocates for social justice and solidarity with oppressed entities, including nature.

The biblical themes of stewardship, divine ownership, and interconnectedness (e.g., Genesis 2:15 and Psalms 24) resonate with Liberation Theology's focus on the dignity of all creation and the responsibility of humans to protect it. Just as Liberation Theology emphasizes the empowerment of marginalized groups, this theological perspective highlights the Church's role in advocating for the preservation of the natural world, particularly when marginalized communities suffer the most from environmental degradation.

Furthermore, the integration of eco-theological insights, such as those from Pope Francis in *Laudato Si'*, strengthens the connection between Liberation Solidarity Theory and environmental conservation. Both frameworks highlight that justice extends beyond human liberation to include the environment, emphasizing a holistic approach where the care for creation is a direct reflection of reverence for God.

Thus, the findings in the chapter enrich the theoretical framework by showing how theological concepts of stewardship, responsibility, and redemption align with the goals of environmental justice promoted by Liberation Solidarity Theory. This provides a solid theological basis for the Church's involvement in addressing environmental crises, particularly in a localized context like Chuka Igambang'ombe Sub-County.

6.10 Conclusion

In summary, the findings in this chapter show that there exists a profound connection between God's love and environmental stewardship. They highlight the importance of viewing the natural world as a manifestation of divine care and emphasize the Christian responsibility to act as stewards entrusted by God. These insights emphasize the imperative for conserving the environment and refraining from activities like hunting, aligning with biblical teachings and ethical principles rooted in religious beliefs. Together, they offer valuable guidance for embracing a holistic approach to environmental care, grounded in love, responsibility, and reverence for creation. Moreover, the diverse perspectives provided further underscore the theological underpinnings of the Church's involvement in environmental conservation. Drawing from various biblical passages such as Genesis 2:15, Psalms 24, Revelation 11:18, Colossians 1:16-17, Isaiah 24:4-6, Romans 8:19-21, Ecclesiastes 3:19-20, and Proverbs 12:10, they emphasize themes of stewardship, divine ownership, redemption, interconnectedness, and compassionate treatment of all creation. These theological foundations provide a rich framework for understanding and guiding environmental stewardship within the Christian faith, emphasizing the responsibility entrusted to humanity to care for and preserve the natural world as an expression of reverence for God's creation.

CHAPTER SEVEN

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

7.1 Summary of the Study Findings

This section presents a summary of the findings of the three objectives of this study. The objectives of this study as stated in chapter one of this thesis were as follows: To identify the causes of environmental degradation in Chuka Igambang'ombe Sub-County. To examine the contributions of the Catholic Church in addressing the environmental crisis in Chuka Igambang'ombe Sub-County, including specific interventions, programs, and activities. To assess the Catholic Church's involvement in environmental conservation efforts in Chuka Igambang'ombe Sub-County, using theological and biblical justifications as a framework.

The first objective of the study was to identify the causes of environmental degradation in Chuka Igambang'ombe Sub-County. With regard to this objective, research indicated that deforestation is a significant cause of environmental degradation, with 48 respondents (13.4%) identifying it as a primary factor. This aligns with existing literature highlighting the detrimental effects of agricultural land conversion, leading to habitat loss, soil erosion, and decreased biodiversity. Pollution also emerged as a critical issue, with 40 respondents (11.1%) attributing it to environmental harm, echoing concerns regarding fossil fuel usage outlined by Inumaru et al. (2021).

A notable 82 respondents (22.8%) linked environmental degradation to the burning of fossil fuels, resonating with Jones (2019). Additionally, 59 participants (16.4%) attributed it to insufficient rainfall, which is exacerbated by climate change. Population growth was identified by 49 respondents (13.6%) as contributing to ecological distress, supported by Johnson (2018), who noted its impact on natural resources. Soil erosion, cited by 14 respondents (3.9%), poses risks to sustainable agriculture and aligns with Blaikie and Brookfield (2019). Insights from local scholars emphasized specific regional challenges. Munene (OI, 2023) highlighted deforestation for agriculture and improper waste disposal as key issues. Kallikatt (OI, 2023) pointed to water pollution and biodiversity loss, while George (OI, 2023) noted the adverse effects of improper waste management and insufficient conservation efforts.

Javan (OI, 2023) underscored overgrazing and uncontrolled logging as significant contributors to habitat loss. Valiyaveeytil (OI, 2023) identified encroachment on natural habitats and pollution from waste management as notable factors, stressing the need for sustainable practices. Mbirichi (OI, 2023) reiterated the impact of soil erosion and deforestation, while Nyarire (OI, 2023) emphasized inadequate conservation measures leading to habitat destruction. Overall, these findings contribute to a nuanced understanding of environmental degradation in Chuka Igambang'ombe Sub-County, suggesting that religious institutions, particularly the Catholic Church, could play a vital role in promoting sustainable practices and advocating for policies addressing these interconnected issues.

The second objective of the study was to examine the contributions of the Catholic Church in addressing the environmental crisis in Chuka Igambang'ombe Sub-County, including specific interventions, programs, and activities. Research revealed significant efforts by the Catholic Church in environmental conservation, particularly in tree planting, which had the highest engagement, with 134 respondents (37.3%). This reflects the Church's commitment to environmental stewardship, aligning with Nhamo's (2021) view on the importance of tree planting for promoting sustainability. Additionally, the Catholic National Tree Planting Day attracted 133 respondents (37.0%), further highlighting its significance as a key conservation initiative, supported by insights from Pophiwa (2009) on the effectiveness of such programs.

Public awareness programs were noted by 34 respondents (9.5%), indicating moderate participation. According to Manu (2013), this suggests room for improvement in outreach efforts. Similarly, seminars, mentioned by 24 respondents (6.7%), showed lower engagement, with Bob-Milliar (2012) emphasizing the need for community-centered approaches to enhance their effectiveness. Notably, 34 respondents (9.5%) indicated no involvement in environmental activities, raising concerns about the need for the Church to address barriers to participation. This points to an opportunity for the Church to develop strategies that engage uninvolved members more effectively.

The analysis highlighted several environmental conservation initiatives within the Catholic Church in Chuka Igambang'ombe Sub-County, addressing both successes and challenges. Murungi (OI, 2023) expressed concerns regarding the effectiveness of the Laudato Si' Movement, indicating a disconnect between the Church's larger

environmental goals and local engagement. This suggests that cultural and socio-economic barriers need to be addressed to improve participation in environmental programs. Environmental education programs at parish and diocesan levels were highlighted by George (OI, 2023), who confirmed their role in promoting awareness of human activities' environmental impact. His findings stress the importance of community-specific educational approaches to better meet local needs.

Kallikatt (OI, 2023) noted the establishment of Community Gardens by Catholic institutions, promoting sustainable agriculture and addressing food security issues. These initiatives also foster community building, encouraging parishioners to embrace ecological stewardship. Despite the efforts made, Mbirichi (OI, 2023) pointed out the limited effectiveness of programs like the Catholic National Tree Planting Day due to low adherence among Christians. This underscores the need for enhanced community involvement, potentially through incentivized participation strategies. Munene (OI, 2023) emphasized the Church's advocacy for Environmental Justice, focusing on marginalized communities. However, challenges in effectively mobilizing Christians remain, pointing to a need for deeper engagement and collaboration to strengthen advocacy efforts. Sustainable practices in churches, including energy reduction and recycling, were discussed by Nyarire (OI, 2023), who noted their positive impact on parishioner engagement. The findings suggest that clear communication about these practices could further encourage participation.

Valiyaveeytil (OI, 2023) spoke about the Green Parish Program, which helps parishes assess their environmental impact and promote sustainability. However, he noted reluctance among Christians to engage fully, indicating a need for supportive environments and regular feedback to foster ownership and accountability. Lastly, Javan (OI, 2023) acknowledged partnerships between the Church and environmental organizations, emphasizing the strategic collaboration with NGOs to advance conservation efforts and raise community awareness. These partnerships have strengthened local initiatives and expanded the Church's environmental influence. The data on educational initiatives within the parish reveals a structured commitment to environmental conservation through various educational initiatives. Murungi (OI, 2023) emphasized the importance of yearly educational initiatives designed to foster meaningful connections with the environment, promoting regular engagement and

awareness among parishioners. George (OI, 2023) similarly noted that these initiatives encourage harmonious relationships with nature, highlighting a holistic approach to environmental stewardship.

According to Kallikatt (OI, 2023) tailored programs aimed at educating individuals about their immediate surroundings, reinforcing the parish's commitment to consistent learning. Mbirichi (OI, 2023) reiterated the focus on establishing personal connections with the environment through structured yearly initiatives. Munene (OI, 2023) and Nyarire (OI, 2023) pointed out the effectiveness of programs conducted every six months, emphasizing the importance of fostering thoughtful relationships with nature. This periodic approach ensures continuous engagement and reinforcement of sustainability messages. Javan (OI, 2023) highlighted quarterly initiatives that maintain consistent awareness and participation in environmental conservation, while Valiyaveeytil (OI, 2023) noted the parish's dedication to annual educational efforts aimed at cultivating ecological consciousness.

Third objective of this study was to assess the Catholic Church's involvement in environmental conservation efforts in Chuka Igambang'ombe Sub-County, using theological and biblical justifications as a framework. The findings reveal a strong emphasis on environmental stewardship among respondents, with tree planting being the most widely embraced practice by 160 (44.5%) participants. This aligns with Hope and Jones (2014), who underscore the Christian responsibility to care for creation, viewing the act of planting trees as a tangible expression of environmental stewardship that promotes sustainability and biodiversity. Another key theme is the conservation of the environment for the glory of God, supported by 81 (22.6%) respondents. This reflects a theological stance discussed by Dampier (2003), positioning environmental conservation as both a spiritual duty and a way to honor the divine, reinforcing the intrinsic value of creation.

Moreover, the protection of living beings in the environment was highlighted by 40 (11.1%) respondents, resonating with the Christian ethos of stewardship, which emphasizes the interconnectedness of all life forms (Jenkins, 2009). Additionally, 42 (11.7%) respondents advocated for creating environmental awareness, which aligns with Dreyer's (2021) call for education and advocacy to promote environmental consciousness and ethical responsibility. Protecting water catchment areas, recognized

by 25 (7.0%) respondents, echoes Christian teachings on safeguarding water resources, an essential part of the ecological balance, as noted by Hope and Jones (2014). Lastly, 11 (3.1%) respondents equate harming the environment with harming humanity, an ethical view supported by Dampier (2003), emphasizing the close link between environmental health and human well-being.

The theological basis for the Church's involvement in environmental conservation has been deeply rooted in the Christian principle of stewardship, as revealed by various parish representatives. Munene (OI, 2023) from Ndagani parish noted that Genesis 2:15 serves as a foundational scripture, emphasizing the directive to care for the Earth. This scriptural reference provided the theological grounding for the Church's responsibility in preserving and protecting the environment. Javan (OI, 2023) from Kajuki parish further affirmed this, citing Psalms 24, which presents the Earth as the Lord's creation, underscoring the moral obligation placed upon humanity to act as stewards of the natural world.

Valiyaveeytil (OI, 2023) from Magumoni parish supported this view, referring to Revelation 11:18 to emphasize the divine creation of the earth and humankind's role in safeguarding it. Similarly, Murungi (OI, 2023) from Chuka parish referred to Colossians 1:16-17, which identifies Christ as the sustainer and preserver of all creation, further reinforcing the Church's theological mandate to engage in environmental conservation as a means of honoring Christ's role in creation. George (OI, 2023) from Kanyaki parish added that the Church's theological responsibility extended beyond the earth itself to include all its inhabitants, as illustrated by Isaiah 24:4-6. This perspective aligns with the concept of a divine mandate to care for both the environment and all living creatures. In a similar vein, Kallikatt (OI, 2023) from Chera parish emphasized the connection between environmental stewardship and redemption, drawing from Romans 8:19-21 to illustrate how environmental care reflects the Christian mission of restoration.

Mbirichi (OI, 2023) from Mbukoni parish pointed to Ecclesiastes 3:19-20, which highlights the interconnectedness between humanity and the earth, reaffirming the Church's responsibility to manage the environment conscientiously. Lastly, Nyarire (OI, 2023) from Mbwiru parish referenced Proverbs 12:10, which underscores the importance of treating animals and the natural world with care, adding another layer

to the theological rationale for the Church's involvement in environmental conservation.

7.2 Conclusions

This research concludes that deforestation, pollution, and fossil fuel combustion are primary causes of environmental degradation, highlighting the urgency of addressing agricultural practices, climate change, and population pressures that exacerbate these challenges. Insights from local scholars enriched understanding of regional factors, indicating that effective solutions must encompass both ecological and socio-economic dimensions. A critical opportunity exists for the Catholic Church to advocate for sustainable practices, leveraging its influence as a powerful platform for promoting environmental awareness and action. The Church has demonstrated proactive engagement through initiatives such as tree planting and public awareness programs. However, gaps in community involvement, particularly among disengaged parishioners, underscore the need for more inclusive and accessible programming. Strengthening the Church's advocacy for Environmental Justice is essential to mobilize support for marginalized groups affected by environmental degradation. Furthermore, the theological and biblical justifications for the Church's involvement in conservation reveal a robust understanding of stewardship, framing environmental care as a spiritual obligation rooted in divine creation. This theological framework can galvanize congregational participation in environmental initiatives, reinforcing the connection between faith and ecological responsibility. Overall, while the Catholic Church in Chuka Igambang'ombe Sub-County has made significant strides in environmental conservation, there is ample room for growth. Engaging community members through education, inclusive programming, and advocacy efforts is vital for fostering a culture of environmental stewardship that is both sustainable and effective. This research contributes valuable insights into the potential of religious institutions to address contemporary environmental crises and advocates for a collaborative approach that integrates theological principles with practical action, ultimately catalyzing a community-wide commitment to a healthier and more sustainable future.

7.3 Recommendations of the Study

- i. To address the first objective, which identified the causes of environmental degradation in Chuka Igambang'ombe Sub-County, the study recommends that the Catholic Church partner with local governmental and non-governmental organizations to initiate a community-led reforestation project. This project would aim to plant 10,000 trees annually over the next five years in deforested areas, targeting regions severely impacted by agricultural land conversion and overgrazing. Progress should be monitored regularly, with measurable outcomes such as a 30% increase in tree cover by the end of the project. Additionally, the Church should launch an environmental awareness campaign focused on reducing fossil fuel usage and pollution, incorporating environmental education into its regular sermons and community outreach activities. This campaign could aim to reach at least 80% of parishioners within the next 18 months, with measurable goals including the reduction of waste by 20% through recycling initiatives and the promotion of clean energy alternatives.
- ii. With regard to the second objective, which examined the contributions of the Catholic Church in addressing the environmental crisis, the study recommends that the Church increase the scope and scale of its tree-planting initiatives. This could be achieved by expanding the Catholic National Tree Planting Day into a quarterly event, engaging more parishioners and local communities through targeted outreach and partnerships with environmental organizations. The goal would be to increase participation by 50% in the next two years, ensuring that at least 75% of all parishes are actively involved in tree-planting activities. Furthermore, to enhance public awareness efforts, the Church should develop a structured environmental education program, providing regular seminars and workshops on sustainable practices, targeting at least 1,000 community members per year. These programs should be tailored to local needs, with specific modules addressing issues such as proper waste disposal, sustainable agriculture, and the use of clean energy, and should be assessed annually for their effectiveness in increasing knowledge and participation.

- iii. To achieve the third objective, which assessed the Catholic Church's involvement in environmental conservation efforts using theological and biblical justifications; it is recommended that the Church integrate environmental stewardship more explicitly into its religious teachings. Sermons and church teachings should draw on biblical texts that emphasize the moral and spiritual duty to care for creation, with a target of incorporating these messages in at least 50% of all weekly services over the next year. In addition, the Church could establish an "Eco-Theology" initiative, where theological education is provided to priests and lay leaders on the importance of environmental conservation, with the goal of training 100 leaders annually over the next three years. These trained leaders could then lead local conservation efforts, ensuring that environmental stewardship becomes a core part of the Church's religious and social mission. Regular evaluations of the impact of these theological teachings on parishioner behavior should be conducted, with measurable outcomes such as increased participation in conservation activities and a greater commitment to sustainable living practices.

7.4 Suggestions for Further Studies

- i. One critical area that warrants further investigation is the socio-economic dimensions of environmental degradation, particularly how poverty, unemployment, and economic disparity contribute to deforestation, pollution, and unsustainable agricultural practices in Chuka Igambang'ombe Sub-County. Understanding the intricate relationship between economic hardship and environmental damage could provide deeper insights into developing sustainable interventions that address both environmental and social justice concerns.
- ii. Additionally, this study highlighted gaps in community involvement, especially among disengaged parishioners, in environmental initiatives led by the Catholic Church. Future research could focus on exploring the barriers that prevent community members from participating in environmental conservation efforts. Investigating factors such as cultural attitudes, economic constraints, and the level of environmental awareness

within the community could lead to the development of more inclusive and accessible programs tailored to the needs of different demographics.

- iii. Another area of interest for further research could be the role of the Catholic Church's advocacy in addressing environmental justice. While this study found a need for strengthening the Church's role in advocating for marginalized groups affected by environmental degradation, a deeper exploration of how religious institutions can effectively mobilize resources and support for these vulnerable populations is necessary. This research could examine the intersection of environmental justice, theology, and human rights within the context of environmental advocacy, potentially uncovering new strategies for integrating these elements into the Church's mission.
- iv. Lastly, the theological and biblical underpinnings of environmental stewardship as articulated by the Catholic Church provide a compelling basis for future research. A broader comparative study could examine how different religious institutions, not only the Catholic Church, engage with environmental conservation and how various theological perspectives influence environmental actions. This could provide a wider understanding of the role of religion in addressing global environmental crises and contribute to interfaith collaborations for environmental sustainability.

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KEY INFORMANTS

Name of the Respondent	Parish	Place of Interview	Date
Fr Lawrence Munene	Ndagani parish	Ndagani	8-8-23
Fr Frankline Javan	Kajuki parish	Kajuki	3-8-23
Fr Jose Valiyaveeytil	Magumoni parish	Magumoni	11-8-23
Fr Johnesia Murungi	Chuka parish	Chuka	23-8-23
Fr George Anthony	Kanyaki Parish	Kanyaki	29-8-23
Fr Francis Kallikatt	Chera parish	Chera	6-9-23
Fr John Mbirichi	Mbukoni parish	Mbukoni	10-8-23
Fr Czar Nyarire	Mbwiru parish	Mbwiru	10-8-23

APPENDICES
APPENDIX I
INTRODUCTION LETTER

Dear Respondent, I am a student of Chuka University, pursuing a Master's of Arts Degree in Religious Studies. I am conducting research titled: The contribution of the Catholic Church in addressing environmental crisis in Chuka Igambang'ombe Sub-County.

You have been chosen as a respondent in this research. Kindly provide the information that has been requested. Confidentiality will be used to treat all the information obtained in this research.

Sarah Kagendo Gitonga

AM16/29227/17

(Researcher)

**APPENDIX II:
CONSENT FORM**

Dear Respondent,

My name is Sarah Kagendo Gitonga, and I am a Master's student in Religious Studies at Chuka University. I am conducting a study on the contribution of the Catholic Church in addressing environmental crises in Chuka Igambang'ombe Sub-County, Kenya.

Purpose: The purpose of this study is to examine the role of the Catholic Church in mitigating environmental challenges within Chuka Igambang'ombe Sub-County. Your insights and experiences will contribute significantly to understanding how religious organizations influence environmental conservation efforts.

Procedure: You are invited to share your knowledge and experiences regarding the Church's environmental initiatives through questionnaires and interviews. Please answer all questions honestly; there are no right or wrong answers. Your feedback is highly valued. For any questions or assistance, contact me at [+254 717 466003].

Risks/Discomforts: There are no anticipated risks in participating in this study. Your responses will remain confidential and used only for research purposes. Participation is voluntary, and you may withdraw at any time without consequence.

Confidentiality: Please do not include personal identifying information on the questionnaires. Responses will be anonymized, and your identity will not be revealed in reports or publications. Data will be securely stored and accessible only to the research team.

CONSENT:

I have read and understood the information provided above. I voluntarily agree to participate in this study and acknowledge that I can withdraw at any time without penalty.

Respondent Signature: _____ **Date:** _____

Researcher Signature: _____ **Date:** _____

Thank you for your participation and valuable contribution to this research.

APPENDIX III

ORAL INTERVIEW FOR THE PRIEST IN CHARGE

I'm Sarah Kagendo Gitonga, pursuing a Masters of Arts Degree in Religious studies at Chuka University. I'm humbly requesting you that you provide response in the following questions for research purposes. All responses will be treated with confidentiality. Please give the researcher accurate feedback.

SECTION 1

PERSONAL INFORMATION

Name:

ORAL INTERVIEW

1. Mention three Biblical Christian teachings on the environment?
2. How often do you educate people on how to relate with their immediate environment?
3. Are there programs in the Catholic Church which remind people on environmental conservation measures?
4. How effective are these environmental programmes in Chuka Igambang'ombe Sub-County?
5. Mention ways in which Catholic Church embrace Biblical stewardship in environmental conservation?
6. What Bible verses do you commonly use to sensitize people on environmental conservation?
7. How often do you educate Christians on how to take care of the environment?
8. Tell some of the causes of environmental degradation in Chuka Igambang'ombe Sub- County?
9. Mention some of the environmental conservation measures in this parish?
10. What problems do you encounter as you implement these measures?
11. What measures do you suggest should be put in place to control environmental degradation in Chuka Igambang'ombe Sub-County?
12. Does the Catholic Church hold seminars to educate people on environmental Conservation?
13. What are some of the activities carried out on environmental day to address environmental issues?
14. Are you aware of the Bible verses which teaches on environment?

15. Give some of them?
16. Are there Theological basis of the Church Involvement in environmental conservation?
17. If yes, which are they?

APPENDIX IV
QUESTIONNAIRE FOR THE PARISH COUNCIL AND DEVELOPMNT
COMMITTEE MEMBERS

This research questionnaire is meant to gather information on the causes of environmental degradation, the role of the Catholic Church in environmental conservation and the Biblical and Theological justification of the Church involvement in environmental conservation. Kindly provide the information that has been requested. Any information given will be treated with confidentiality. Kindly provide the needed information by providing a tick (✓) in the spaces provided.

SECTION 1:

PERSONAL INFORMATION

1. What is your Gender?

Male ()

Female ()

2. What is your age?

Below 30 ()

30-40 ()

41 -50 ()

Above 60 ()

3. What is your highest level of education?

Primary ()

Secondary ()

Diploma ()

Bachelor's Degree and above ()

4. For how long have you served in this Parish?

SECTION II

1. Name the environmental conservation measures you engage in?

2. What are the types of environmental degradations in Chuka Igambang'ombe Sub-County?

3. What are the dangers of destroying environment?

4. Give the existing programs that educate Catholic Church on the importance of conserving the environment?

5. How often does Catholic Church hold seminars to educate people on environmental conservation measures and what are some of the activities that take place during the environmental day?
6. What are some of the activities that takes place during the environmental day to address environmental crisis?
7. How often do you receive teachings from the clergy on environmental conservation?
8. What are some of the Biblical teachings on the environment?
9. How often do you engage yourself in environmental conservation measures?
10. What challenges do you face in the process of conserving the environment?
11. In your opinion, are the Catholic Church programs effective in educating Christians on environmental conservation measures?
12. What is the contribution of the Catholic Church in conserving environment?

SECTION III

1. Do you take part in taking care of environment?

i) Yes () No ()

ii) if yes, in what ways?

a).....

2. Do you receive environmental teachings from the clergy?

i) Yes () No ()

ii) if yes, how often?

a).....

3. Mention some ways in which Christians pollute the environment in Chuka Igambang'ombe subcounty?

a).....

b).....

c).....

4. Does environmental degradation practices bother you in any way?

i) Yes () No ()

ii) If yes, what should you do to ensure environment is safe?

a).....
.....

b).....
.....

5. What are some of the Christian teachings on environment conservation in your church?

i) Yes () No ()

ii) if yes mention some of them;

a).....
.....

6. Give some of the challenges you face in the process of conserving the environment?

a).....
.....

b).....
.....

7. In your opinion is the Catholic Church giving adequate teachings on environmental conservation?

i) Yes () No ()

ii) If no, give some reasons?

a).....
.....

8. What are the causes of environmental degradation in Chuka Igambang'ombe Sub-County?

.....

SECTION IV

1. Do you participate in water, soil or forest conservation?

i) Yes () No ()

ii) If yes, in what ways (Tick \checkmark where appropriate).

a). Tree planting ()

b). Appropriate Cultivation ways ()

c). Protecting water catchment areas ()

d). Others, List them.....

2. Do you know some of the causes of environmental degradation in Chuka Igambang'ombe Sub-County?

i) Yes () No ()

ii) If yes, mention some of them?

.....
.....

3. Do you know of any existing programmes within Catholic Church which helps in protecting and managing the environment?

i) Yes () No ()

ii) if yes, state some of them:

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

4. How effective are these environmental programmes in Catholic Church in Chuka Igambang'ombe Sub-County?

5. Is the Catholic Church in your parish educating Christians on importance of conserving environment?

i) Yes () No ()

ii) if yes, state some of the ways?

.....
.....

6. Does the Catholic Church hold seminars/workshop to create awareness on environmental conservation?

i) Yes () No ()

ii) If yes, how often?

7. Is the Catholic Church in your area involved in controlling various forms of pollution such as Air, water and soil pollutions?

i) Yes () No ()

ii) If yes, in what ways?

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

8. Are you conversant with Christian teaching on environment in your Church?

i) Yes () No ()

ii) If yes, what does it teach?

9. In your opinion, does the Catholic Church have a role to play in conserving environment?

i) Yes () No ()

ii) If yes, specify.....

10. Are there penalties imposed by the county government if one engages in deforestation or tree logging?

i) Yes () No ()

ii) If yes, mention them

.....
.....

11. What are some of the reasons why Christians do not take environmental matters seriously?

.....
.....

12. Are you aware of the dangers of destroying environment?

i) Yes () No ()

ii) If yes, mention some of the dangers of degrading the environment.

.....
.....

APPENDIX V
QUESTIONNAIRE FOR CWA, CMA, YOUTH ASSOCIATION IN VARIOUS
PARISHES

SECTION 1:

PERSONAL INFORMATION

1. What is your Gender?

Male ()

Female ()

2. What is your age?

Below 30 ()

30-40 ()

41 -50 ()

Above 60 ()

3. What is your highest level of education?

Primary ()

Secondary ()

Diploma ()

Bachelor's Degree and above ()

4. For how long have you served in this Parish?

SECTION II

1. Name the environmental conservation measures you engage in?

2. What are the types of environmental degradations in Chuka Igambang'ombe Sub-County?

3. What are the dangers of destroying environment?

4. Give the existing programs that educate Catholic Church on the importance of conserving the environment?

5. How often does Catholic Church hold seminars to educate people on environmental conservation measures and what are some of the activities that take place during the environmental day?

6. What are some of the activities that takes place during the environmental day to address environmental crisis?

7. How often do you receive teachings from the clergy on environmental conservation?

8. What are some of the Biblical teachings on the environment?

9. How often do you engage yourself in environmental conservation measures?
10. What challenges do you face in the process of conserving the environment?
11. In your opinion, are the Catholic Church programs effective in educating Christians on environmental conservation measures?
12. What is the contribution of the Catholic Church in conserving environment?

SECTION III

1. Do you take part in taking care of environment?

i) Yes () No ()

ii) if yes, in what ways?

a).....

2. Do you receive environmental teachings from the clergy?

i) Yes () No ()

ii) if yes, how often?

a).....

3. Mention some ways in which Christians pollute the environment in Chuka Igambang'ombe subcounty?

a).....

 b).....

 c).....

4. Does environmental degradation practices bother you in any way?

i) Yes () No ()

ii) If yes, what should you do to ensure environment is safe?

a).....

 b).....

5. What are some of the Christian teachings on environment conservation in your church?

i) Yes () No ()

ii) if yes mention some of them;

a).....
.....

6. Give some of the challenges you face in the process of conserving the environment?

a).....
.....

b).....
.....

7. In your opinion is the Catholic Church giving adequate teachings on environmental conservation?

i) Yes () No ()

ii) If no, give some reasons?

a).....
.....

8. What are the causes of environmental degradation in Chuka Igambang'ombe Sub-County?

.....

SECTION IV

1. Do you participate in water, soil or forest conservation?

i) Yes () No ()

ii) If yes, in what ways (Tick \checkmark where appropriate).

- a). Tree planting ()
- b). Appropriate Cultivation ways ()
- c). Protecting water catchment areas ()
- d). Others, List them.....

2. Do you know some of the causes of environmental degradation in Chuka Igambang'ombe Sub-County?

i) Yes () No ()

ii) If yes, mention some of them?

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

3. Do you know of any existing programmes within Catholic Church which helps in protecting and managing the environment?

i) Yes () No ()

ii) if yes, state some of them:

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

4. How effective are these environmental programmes in Catholic Church in Chuka Igambang'ombe Sub-County?

5. Is the Catholic Church in your parish educating Christians on importance of conserving environment?

i) Yes () No ()

ii) if yes, state some of the ways?

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

6. Does the Catholic Church hold seminars/workshop to create awareness on environmental conservation?

i) Yes () No ()

ii) If yes, how often?

7. Is the Catholic Church in your area involved in controlling various forms of pollution such as Air, water and soil pollutions?

i) Yes () No ()

ii) If yes, in what ways?

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

8. Are you conversant with Christian teaching on environment in your Church?

i) Yes () No ()

ii) If yes, what does it teach?

9. In your opinion, does the Catholic Church have a role to play in conserving environment?

i) Yes () No ()

ii) If yes specify.....

10. Are there penalties imposed by the county government if one engages in deforestation or tree logging?

i) Yes () No ()

ii) If yes, mention them

.....
.....

11. What are some of the reasons why Christians do not take environmental matters seriously?

.....
.....

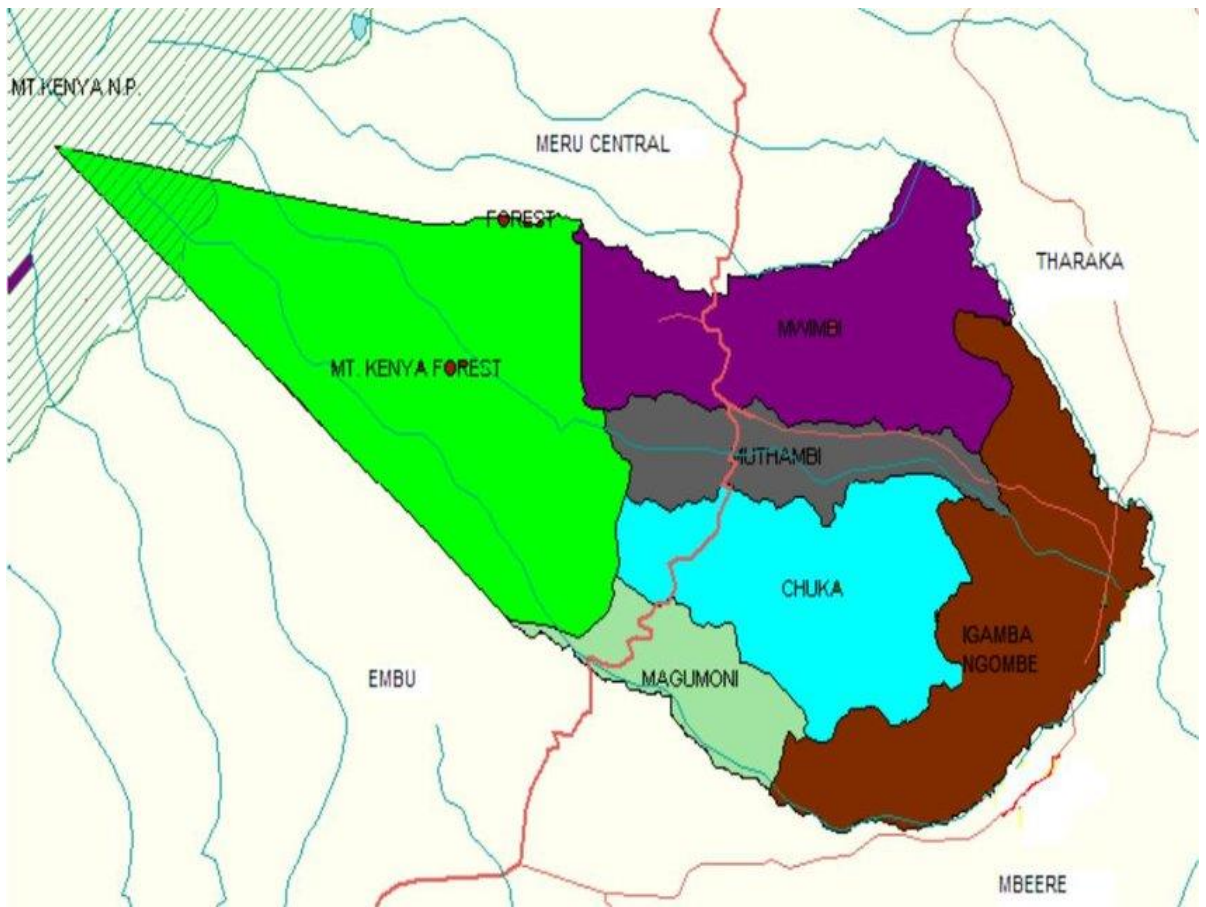
12. Are you aware of the dangers of destroying environment?

i) Yes () No ()

ii) If yes, mention some of the dangers of degrading the environment.

.....
.....

APPENDIX VI
A MAP OF CHUKA IGANGANG'OMBE SUB-COUNTY



Source: GoK, 2018

Scale: 1:100,000

APPENDIX VII
DATA OF THE CATHOLIC POPULATION IN KENYA

Diocese	No of Faithful	No of priests	No of Parishes	No of Education Institutions	No of Hospitals	Groups of CWA, CMA, YA
Bungoma	595,655	67	29	879	24	3
Eldoret	487,745	69	41	788	81	3
Embu	341,842	63	16	281	21	3
Garissa	7000	16	6	8	14	3
Homa Bay	423,408	49	27	97	158	3
Isiolo	35,389	15	12	73	14	3
Vacariate						
Kakamega	443,660	103	34	520	252	3
Military		9	21			3
Ordinarate						
Kericho	234,335	44	21	205	29	3
Kisii	486,479	35	16	724	317	3
Kisumu	463,100	73	34	866	107	3
Kitale	180,000	54	24	14	15	3
Kitui	258,000	60	24	440	17	3
Lowdar	69,145	49	21	305	38	3
Machakos	898,817	138	58	1079	499	3
Malindi	23,577	32	16	16	8	3
Maralal	43,386	30	12	140	11	3
Marsabit	25,859	28	12	81	12	3
Meru	765,410	145	54	960	72	3
Mombasa	262,000	65	43	142	14	3
Murang'a	788,645	94	35	366	20	3
Nairobi	1,323,320	527	108	229	70	3
Nakuru	242,144	188	42	109	36	3
Ngong	82,552	66	29	232	15	3
Nyahururu	320,000	49	29	49	25	3
Nyeri	76,900	83	31	108	45	3
TOTAL	8,878,324	2018	1795	8711	1914	

The above information was for the year 2019. It was taken from the symposium of Episcopal conference of Africa and Madagascar (SECAM), directory, 24th Edition, 2019).

**APPENDIX VIII
NACOSTI PERMIT**

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION



NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Ref No: **525410** Date of Issue: **17/July/2023**

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