

**THE ROLE OF THE CHURCH IN ENVIRONMENTAL CONSERVATION WITH  
PARTICULAR REFERENCE TO THE SEVENTH DAY ADVENTIST (SDA)  
CHURCH IN KISII CENTRAL DISTRICT OF KISII COUNTY, KENYA**

**EGERTON UNIVERSITY LIBRARY**



**ONDIEKI JOSEPH MOGIRE**

**A Thesis Submitted in Partial Fulfillment of the Requirements for Master of Arts  
Degree in Religious Studies of Egerton University**



**Egerton University**



**October, 2012**

2013/96612

**DECLARATION AND RECOMMENDATIONS**

**Declaration by Candidate:**

I Joseph Mogire Ondieki declare that this thesis is my original work and has not been submitted in any other university for the award of any degree or diploma.

Signature.......... Date..... 28/10/12.....

Joseph Mogire Ondieki

AM14/2126/08


**Recommendation**

This thesis has been submitted for examination with our approval as the university supervisors.

Signature.......... Date..... 22/10/2012.....

Dr. Joshia Osamba

Department of Philosophy, History and Religious Studies

Signature.......... Date..... 28/10/12.....

Dr. Boaz Kariuki Onyancha

Department of Philosophy, History and Religious Studies

mb4

51229 / dec 15  
de-kenya

## **COPYRIGHT**

No part of this thesis may be produced, stored in any retrieval system, or transmitted in any other form or means: photocopying, recording or otherwise without prior written permission of the author and / or Egerton University on that behalf.

## DEDICATION

To my three daughters,

Ruth, Jedidah and Sarah,

With much affection'

To My dear wife

Dianah

With much love and immeasurable thankfulness

And always

To my beloved Parents

James and Yunuke

Source of inspiration and encouragement,

I dedicate this work to you.



## ACKNOWLEDGEMENT

The preparation of this thesis involved cooperative efforts from several key persons and institutions. However since it might be impractical to mention all of them, some minimum crediting is inevitable.

First, gratitude goes to the supervisors who devoted a lot of time and patience to this study and manuscript preparation. I am particularly very grateful for the extraordinary advice, guidance and concern accorded by my supervisors, Dr. J.O. Osamba and Dr. B.K Onyancha, both of the Department History, Philosophy and Religious Studies of Egerton University. Second, I wish to convey my sincere gratitude to the Executive Secretary, South Kenya Conference of the SDA Church who gave me permission to undertake the study in their Churches and allowed their staff to participate in it. Third, the pastors and Church leaders in the Conference deserve mention for their participation in the study. Fourth, the cooperation given by the Kisii Central District Environmental Officer and UN-Habitat staff-Kisii County and other staff of NGOs visited are sincerely acknowledged

Sincere thanks go to my beloved wife, Dianah, who tirelessly encouraged me when I felt I could never make it. I am also indebted to my parents, James and Yunuke Ondieki for their encouragement and support towards my schooling and friends who assisted when I was in need.

My appreciation also goes to Lamech, Geoffrey, Fred Bosire, Duncan, Onyambu, Mokeira and Eunice who have shown me much patience, tolerance and understanding throughout the course. I would like to thank my family members, Ruth, Jedidah, Sarah, Happy, Esther, Ken, Richard, Gesare, Dan and Shadrack for their prayers and moral support during the study. Finally, I would like to thank Damaris Ken for the technical assistance she provided in typing this work.

## ABSTRACT

Environmental degradation and climate change are global problems. The purpose of the study was to examine the role of the SDA Church in environmental conservation in Kisii Central District. The Kisii highlands which are known to have a high agricultural potential have over time changed and the region now faces rapidly increasing population pressure and environmental degradation. The region is widely predominated by the Christian faith whose teachings are capable of mobilizing the whole society to actively engage in environmental conservation. The study is justified by the fact that there are limited studies done on religion and environment. The study adopted the Cosmic Christ Model which emphasizes the interrelatedness between God and the cosmos. The model regards the world as God's sacrament and argues that whatever happens within it happens to God and that the cosmos is God's habitat. Data was collected using questionnaires and interview schedules. The collected data was analyzed using both qualitative and quantitative analysis in order to determine its validity. The unit of analysis was the members in the various SDA Churches in the region. Theoretically, the findings of the study indicate that the Church's teachings and practices have a rich potential for enhancing environmental conservation. However, empirically the Church has not applied this potential to address environmental challenges confronting the study area. Recommendations on how the Church can best support efforts already being made by the government to curb the rapid environmental degradation in Kisii Central District have also been suggested.



TABLE OF CONTENTS

**DECLARATION AND RECOMMENDATIONS..... ii**

**COPYRIGHT..... iii**

**DEDICATION ..... iv**

**ACKNOWLEDGEMENT ..... v**

**ABSTRACT ..... vi**

**TABLE OF CONTENTS..... vii**

**LIST OF TABLES ..... x**

**LIST OF FIGURES ..... xi**

**LIST OF PLATES ..... xii**

**LIST OF ABBREVIATIONS ..... xiii**

**CHAPTER ONE ..... 1**

**INTRODUCTION..... 1**

1.1 Background to the Study ..... 1

1.2 Statement of the Problem ..... 5

1.3 Purpose of the Study ..... 5

    1.3.1 Objectives of the Study ..... 5

1.4 Research Questions ..... 5

1.5 Justification of the Study ..... 5

1.6 Scope and Limitations of the Study ..... 6

1.7 Definition of Key Terms ..... 8

**CHAPTER TWO ..... 9**

**LITERATURE REVIEW ..... 9**

2.1 Introduction..... 9

2.2 Man and the Environment ..... 9

2.3 Environmental Degradation in Kenya..... 10

2.4 The SDA Church and Environment ..... 13

2.5 The Importance of Employing a Religious Perspective in  
    Environmental Conservation..... 14

2.6 Causes of Environmental Degradation..... 17

2.7 Theoretical Framework ..... 18

    2.7.1 Conceptual Framework..... 21

2.8 Conclusion ..... 22

<b>CHAPTER THREE .....</b>	<b>23</b>
<b>METHODOLOGY .....</b>	<b>23</b>
3.1 Introduction.....	23
3.2 The Study Area .....	23
3.3 Research Design.....	27
3.4 Target Population.....	27
3.5 Sampling Design.....	28
3.6. Data Collection .....	28
3.6.1 Reliability and Validity of Research Instruments .....	29
3.7 Data Analysis.....	29
<b>CHAPTER FOUR.....</b>	<b>31</b>
<b>RESULTS AND DISCUSSION OF FINDINGS.....</b>	<b>31</b>
4.1 Introduction.....	31
4.2 The Role of the SDA Church in Environmental Conservation in Kisii Central District.....	32
4.2.1 Environment Related Practices and Teachings.....	33
4.2.2 Allocation of Time for Environmental Conservation Education.....	34
4.2.3 Tree Planting.....	35
4.2.4 Environmental Hygiene.....	36
4.2.5 Farming Practices.....	37
4.2.6 Herbal Treatments.....	38
4.2.7 Teachings on Nature.....	39
4.2.8 Teaching on Stewardship.....	40
4.2.9 Teaching on Sabbath Keeping .....	41
4.2.10 Teaching on Vegetarianism .....	43
4.3 The Place of Plants in the Bible.....	44
4.4 Other Practices that Enhance Conservation of Environmental Resources.....	46
4.4.1 Children and Nature.....	46
4.4.2 Teaching on Use of Water.....	47
4.4.3 Outdoor Events .....	48
4.4.4 Sabbath School Teachings on Environmental Conservation .....	49
4.5 SDA Church's Application of Biblical Teachings on Environmental Conservation in Kisii Central District.....	51



4.6 Evaluation of the Contribution of Selected SDA Church Aspects on Environmental Conservation in Kisii Central District.....	53
4.6.1 Application of the Teaching about Sabbath Keeping on Environmental Conservation .....	54
4.6.2 Application of the SDA Church Teaching on Health and Hygiene on Environmental Conservation.....	55
4.6.3 Involvement of Church Leadership in Environmental Conservation.....	56
4.6.4 SDA Church Adherents' Familiarity with Biblical Teachings on Environmental Conservation .....	58
4.6.5 SDA Church Members Adherence to Teachings on Environmental Conservation.....	59
4.6.6.1 Reasons for Not Adhering to the Teachings on Environmental Conservation.....	60
4.6.6.2 Who Should Lead the Rest in Environmental Conservation? .....	61
4.7 The Biblical Basis for SDA Church Environmentalism .....	62
4.8 A Critical Analysis of the SDA Church's Apathetic Attitude to Environmental Conservation.....	63
4.9 Conclusion.....	64
<b>CHAPTER FIVE .....</b>	<b>65</b>
<b>SUMMARY, CONCLUSION AND RECOMMENDATIONS .....</b>	<b>65</b>
5.1 Introduction.....	65
5.2 Summary of Research Findings.....	65
5.3 Recommendation on How the Church Can Improve Its Contribution to Environmental Conservation .....	66
5.4 Recommendation for Further Study.....	68
5.5 Conclusion .....	68
5.5.1 Theoretical Conclusion .....	68
5.5.2 Empirical Conclusion.....	69
<b>REFERENCES .....</b>	<b>70</b>
<b>APPENDICES.....</b>	<b>75</b>

## LIST OF TABLES

Table 3.1 : Kisii Central District Administrative Divisions .....	23
Table 4.1: Demographic characteristics of the respondents .....	32
Table 4.2: Activities/Practices relevant to environmental conservation engaged in by the SDA Church.....	33
Table 4.3: SDA Church adherents' awareness on the Biblical teachings on uses of plants .....	45
Table 4.4: Other practices that enhance conservation of environmental resources.....	46
Table 4.5: Aspects that were selected for purposes of appraisal of the SDA Church's contribution to environmental conservation in Kisii Central District.....	54
Table 4.6: Impact of Belief in Sabbath Keeping on Environmental Conservation .....	54
Table 4.7: Impact of the Church's teachings on personal health and hygiene on environmental conservation .....	56



## LIST OF FIGURES

Figure 2.1 Conceptual Framework .....	21
Figure 3.1 : Location of Kisii Central District .....	24
Figure 4.1: Frequency of programmes offered in the Church on environmental Conservation in the SDA Church .....	34
Figure 4.2: SDA Church adherents' awareness on the Biblical teachings on uses of plants ..	45
Figure 4.3: Impact of belief in Sabbath Keeping on Environmental Conservation.....	55
Figure 4.4: Impact of the Church's teachings on personal health and hygiene on environmental conservation.....	56
Figure 4.5: SDA Church leaders' application of Biblical teachings on environment to environmental conservation.....	57
Figure 4.6: SDA Church adherents' familiarity with Biblical teachings on environmental conservation .....	58
Figure 4.7: SDA Church members' adherence to teachings on environmental conservation.	59
Figure 4.8: Opinion on whose duty it is to educate the public on environmental issues.....	61

## LIST OF PLATES

Plate 1.1: The effects of soil erosion on Manga ridge next to Kisii Town .....	2
Plate 3.1: Blue gums planted next to a river spring in Kisii Central .....	25
Plate 3.2 : Young people washing clothes next to water spring near Kisii Town.....	26
Plate 3.3: A girl washing clothes next to a water spring near Kisii Town.....	27
Plate 4.1: The use of gabions to conserve soil from erosion at Jogoo near Kisii town.....	37
Plate 4.2: The use of terraces and contour cropping to curb soil erosion at Getare, near Kisii town.....	38

## LIST OF ABBREVIATIONS

ACK	Anglican Church of Kenya
ADRA	Adventist Relief Agency
GC	General Conference
KCDDP	Kisii District Development Plan
KJV	King James Version
NEMA	National Environment Management Programme
NES	National Environmental Secretariat
NGOs	Non-Governmental Organization
NKJV	New King James Version
OI	Oral Interview
SDA	Seventh Day Adventist
SKC	South Kenya Conference
UNEP	United Nations Environmental Programme

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the Study

Kenya faces a number of environmental challenges. In addition to mushrooming problems of deforestation, land and natural resources degradation, increasing population and chronic poverty, climate change and loss of biodiversity are serious environmental concerns. As the natural resource base of the nation deteriorates at an alarming rate, so does the hope for greater development in future.

The Bible portrays humans as occupying a unique place and fulfilling a key role in working out God's plan for the whole creation. However it may be observed that humankind's stewardship of the earth has turned into an exploitation of it as people take whatever they can from the earth, regardless of the consequences and also contrary to God's initial plan on man's stewardship over nature (Sisei, 2010).

Within Kisii Central District, overpopulation has contributed to land degradation, soil erosion and deforestation which are acute problems. In turn food and water shortages are increasingly becoming a common problem in the Kisii highlands (Kisii Central District Development Plan-KCDDP, 2002-2008)





**Plate 1.1:** The effects of soil erosion on Manga ridge next to Kisii Town

(Photograph Taken on 4/4/11)

Although this area has been a focus of conservation work, the highlands continue to suffer considerable environmental degradation. Water pollution is caused by untreated sewerage effluents from coffee and tea factories, oil leakage and pesticides and fertilizers used on the farms. Some areas of the district are experiencing severe soil erosion due to the hilly topography of the region (See Plate 1.1). The problem is getting worse mainly because the forest cover has diminished over the past few years due to encroachment and illegal logging. For instance, Nyangweta, an exotic forest established in the late 1940s and early 1950s by the colonial government –is almost cleared.

The district is one of the most densely populated areas of Kenya with more than 647 persons per square kilometer (KCDDP, 2002-2008). Over 80 per cent of the people are farmers deriving their living from the land. Consequently land fragmentation is a growing problem and the average holding is 1.9 hectares. In urban areas, particularly Kisii town, the drainage and sewerage system sometimes overflow and pollute nearby rivers and streams. Toilets have been poorly maintained as well as solid refuse disposal sites. The rural areas also lack latrines. This has resulted in high incidences of typhoid and dysentery (KCDDP, 2002-2008).

Within this context, there is a need to identify new mechanisms to protect the environment. These mechanisms should necessarily entail types of mutual relationship with the



communities and should be able to make a fresh appeal that will arouse them to start engaging actively in activities that would preserve the environment. One of these mechanisms could be religious appeals. Ideally if harnessed well, religion has a high potential that can help mobilize members of most communities to join efforts to conserve the environment much faster than most of the strategies employed before. In particular, the Christian faith has certain unique orientations and values that may not only be useful but indispensable for a more detailed approach to environmental conservation issues. Scholars of religion and religious leaders can be key players in the process.

The concept of active care for the environment by Christians is explicated in the Second chapter of Genesis, "The Lord took the man and put him in the Garden of Eden to till and to keep it"(Genesis 2:15). Stuart (2005:1689) notes that the verbs rendered "cultivate and keep" are in most Biblical passages translated as "serve" and "protect". Thus an ancient Israelite audience would understand from the text that in Eden God had created a "sacred space" and installed man as its priest. Commenting on the duties of a priest, Stuart (2005) further observes that the work of a priest was to care for the sacred space and to see that it was not defiled or polluted in anyway. The human presence as described in the book of Genesis is thus presented as one of priestly service to the world.

The idea of caring and ruling the environment given to man implies a wise and loving care expressed through acts of service and even costly personal sacrifice. In God's Law to the Israelites, God institutes a pattern of rest for the land, a "land Sabbath to the Lord". "When you enter the land am going to give you, the land must observe a Sabbath to the Lord" (Leviticus 25:2). The Bible treats the land as a moral subject and legal rights are imputed to it- the right of the land to "rest" every seven years (Leviticus 25:4) and penalties are prescribed for its abuse. Equally in the plan of salvation nonhuman nature is included in God's stated plan for the redemption of the world to himself. The Judeo-Christian tradition sees the problem of ecological abuse not as isolated acts of selfishness or ignorance, but as rebellion against God (Hosea 4:1-3)-hence the need for a reconciliation between God and his creation. The reconciliation is most vividly represented in the incarnation, in which God becomes part of his creation in the person of Jesus Christ and through his death reconciles all created things to himself (Colossians 1:15-20). Hence Christian Conservationists widely believe that any efforts to conserve the environment are quite significant to future redemption.



The Seventh - Day Adventist (SDA) Church along with the Roman Catholic Church are the two major Christian denominations in Kisii County. The Seventh-Day Adventist Church is a protestant Christian denomination which is distinguished mainly by its observance of Saturday, believed to be the original seventh day of Judeo Christian week – as the Sabbath (or day of worship). Schwarz (1979:20) notes that “it is a conservative Christian Church, worldwide in extent, evangelical in doctrine and professing no creed but the Bible”. The Church places strong emphasis on the Second Advent (second coming of Jesus) which it believes is near and emphasizes the Sabbath of the Bible on the seventh day of the week. These two distinguishing points are incorporated into the name Seventh - Day Adventist (Schwarz, 1979:20).

The SDA Church is relevant to the study based on the fact that its teachings and literature have a unique orientation that if well utilized and harmonized with the whole Biblical teaching on environment, could lead to major achievements towards sustainable utilization of the rapidly degenerating Kisii County environment. The core teachings of the Church are summarized in what is known as “The 27 Fundamental Beliefs of the SDA Church” (General Conference of SDA-, 2005:11). These beliefs constitute the Church's understanding and expression of the teaching of Scripture. Among these beliefs, those that are relevant to this study include belief in Creation (Belief 6), belief in the Sabbath (Belief 19) and the belief in Stewardship (Belief 20).

The overview of the Church’s fundamental beliefs given above shows that the SDA Church has a unique environment-friendly predisposition. This includes the fact that the Church stresses strongly the relationship between God and Nature (Creation) and also the belief that the natural environment reveals God’s glory. Equally the Church’s adherents believe they are God’s stewards over the earth resources which in itself suggest an ethic of conservation. Alongside these beliefs, it is significant to note that the Church encourages strict adherence to a vegetarian lifestyle which can only be obtained from a healthy environment. Cohen (2004:103) notes that in addition to health advantages, “other considerations that may lead a person to adopt a vegetarian diet include concern for the environment, ecology and world hunger issues...”

In the light of the foregoing it is clear that the Church has a rich and unexploited potential that may be employed to enhance faster environmental conservation. It is imperative

therefore to conclude that Christians and in particular those in the SDA Church should be role models in conserving and preserving the natural environment. However it is significant to realize that there is a conspicuous disjunction between contemporary environmental problems and the Christian teachings in most Churches today. The local religious institutions are not well equipped to supply specific guidance in dealing with complex issues such as climate change, desertification or deforestation. It is for this reason also that this study purposed to investigate the role the SDA Church is playing in environment conservation with a view to identifying possible strategies for incorporating it in environmental conservation.

### **1.2 Statement of the Problem**

Kisii Central District continues to experience rapid environmental degradation. Although the teachings of the SDA Church which is predominant in the region have a strong appeal for care of the natural environment, there is no evidence of studies done on how the Church is using this nature-Church relationship to support environmental conservation efforts. Hence, the need for this study to bridge this gap in knowledge.

### **1.3 Purpose of the Study**

The purpose of this study was to investigate and determine the role of the SDA Church's teachings on environmental conservation efforts in Kisii Central District.

#### **1.3.1 Objectives of the Study**

- i. To establish the role of the SDA Church in environmental conservation in the District.
- ii. To analyze how the SDA Church applies Biblical teachings to environmental conservation in Kisii Central District.
- iii. To make recommendations on the relevant contribution the Church can make toward environmental conservation efforts in the Kisii Central District.

### **1.4 Research Questions**

- i. What role is the SDA Church playing in environmental conservation in Kisii Central District?
- ii. How is the SDA Church relating Biblical teachings to environmental conservation?
- iii. How best can the SDA Church contribute positively to environmental conservation efforts?

### **1.5 Justification of the Study**



The study was considered justifiable based on the following grounds: First, the study makes a significant contribution to knowledge on the Church's involvement in environmental matters. Secondly, environmental degradation is a global problem affecting the whole world. As such this study contributes in creating awareness among people in the local society in problem that is global in nature.

Thirdly, the study contributes knowledge in the field of environmental conservation and environmental ethics. The findings of the study will sensitize Christians in the region on the need to engage actively in environmental conservation efforts on the basis of Biblical teachings.

Fourth, this study employs ecotheology, a distinctively new approach in addressing problems related to environmental degradation and conservation. It is hoped that the findings of the study founded on this perspective will shed light on an alternative way that can be employed to enhance concerted efforts while addressing issues related to environmental conservation.

Fifth, the SDA Church's teachings and literature have a unique orientation that if are well utilized and harmonized with the whole Biblical teaching on environment, could lead to major achievements towards sustainable utilization of the rapidly degenerating Kisii County environment. Finally, the literature on the SDA Church's involvement in environmental conservation is lacking. Hence the current study adds knowledge in the field of environmental conservation.

### **1.6 Scope and Limitations of the Study**

The study was conducted in Kisii County of Nyanza province. The main area of focus was the five divisions of Kisii Central District, which is actually one of the districts that form the County. Data was collected from the Seventh-Day Adventist Church Members. The education levels of most of the people in the region are low, a factor which made it difficult for some of them to respond to questionnaires and interviews. This problem was addressed by using knowledgeable assistants who facilitated efficient communication. Another challenge this study faced was that not much studies on environmental conservation have been done in this area. Consequently the study experienced a shortage of relevant literature. This problem was addressed by referring to sources of information from other areas including those from other countries and then applying them to the current study. Equally the SDA Church is not

on record for serious engagement in matters pertaining to environmental conservation. Consequently obtaining relevant information for the study was a challenge. The problem was addressed by doing intensive examination of secondary sources of data and also the role of other Churches found in the study area.



## 1.7 Definition of Key Terms

**Dynamite Fishing:** Refers to extraction of fish from sea water using dynamite, a harmful substance with long term negative effects on fish population.

**Ecojustice:** Is a term that refers to application of the concept of justice to the environment.

**Ecotheology:** Refers to a form of constructive theology that focuses on the interrelationship of religion and nature, particularly in the light of environmental concerns

**Environmentalism:** Advocacy for work toward protecting the environment from destruction or pollution.

**Engineered life forms:** Refer to altered life forms resulting from genetic engineering

**Environmental conservation:** Is used in this study to refer to all efforts made to keep or protect the environment from change or damage.

**Environmental crisis:** Is used in this study to denote all forms of changes taking place within the environment that make it degenerate or to be in a condition that is worse than normal.

**Paradigmatic:** Implies a model that forms the basis of a methodology or theory.

**Sacrament:** Implies something considered to be sacred or having a special significance.

**Eutrophication:** Is a process by which a body of water especially freshwater lakes or seas becomes rich in dissolved nutrients, thereby encouraging the growth of plant life, which may lead to decomposition of oxygen, resulting in harm to other organisms.

**Genetic Engineering:** Is used to mean the alteration and recombination of genetic material by technological means, hence enhancing desired plant and animal characteristics.

**Green Movements:** A category term for individuals or organizations involved in efforts to protect or conserve the environment.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

This study inferred and drew conclusions from related studies that have been conducted locally and globally to bring to light issues pertaining to the Church and environmental conservation. A review of some previous studies on environmental conservation at global, national and local level was done in this section. The section also discusses the importance of using a religious perspective in environmental conservation and the theoretical framework that guided this study.

#### 2.2 Man and the Environment

Human interference on the natural environment as observed in activities such as modern industry, development and technology has increased rapidly over the past few years. This implies that if a clear-cut distinction between nature and people was ever possible, it is no longer the case. Human beings and the environment now form a dialectic totality, each side affecting and being affected by the other. This implies that if human beings still depend on nature for food and water, air and minerals, "every wild ecosystem depends on some political arrangement for protection and everything is affected by human-made climate change, importation of exotic species, habitat loss and pollution"(Passmore, 1974: 422).

The ecological crisis faced by the world is much threatening than anytime in past world history. The problem is getting more complicated as the essential ingredients for human survival such as water supplies and agricultural land get threatened across the continent by population and consumption pressures (UNEP, 1994:5). Widespread destruction of species and increased loss of habitat continue to accelerate worldwide. The whole situation seems to be entering into an irreversible state due to adverse effects associated with global climate change.

Gottlieb (1996:254) observes that due to rapid environmental degradation, potential medicines vanish, ecosystems are destabilized and irreplaceable natural beauties are lost forever. The situations are complicated due to the fact that some of the changes being



experienced are intentional. Genetic engineering for instance menaces the world with dismal prospects for engineered life forms and the potentially catastrophic invention of insufficiently tested organisms. Consequently nature has been transformed into something new being shaped and determined by human beings.

Dobson (2005:89) notes that humans are damaging the planet at an unprecedented rate and raising risks of abrupt collapses in nature that could spur disease, deforestation and “dead zones” in the seas. He further argues that the environmental crisis is not only a danger to human survival, but also challenges man’s fundamental sense of what it means to be human and further maintains that delayed intervention to counter continued environmental degradation will have disastrous effects. He observes that global environmental change has already damaged and will damage at an increasing rate, agriculture, wild animals, wild lands, raise sea levels and precipitate more intense storms and worse droughts: expand the range of tropical insects and diseases, kill coral and by all likelihood have unforeseeable effects.

From the foregoing review, it is clear that environmental degradation is taking its toll slowly but systematically, probably with very few people being aware of the danger it poses globally and locally. Studies that show the extent to which the people in the current area of study are aware of the dangers being faced by the environment and the role they are playing to counter further degradation are lacking. This study is expected to fill that Knowledge gap .

### **2.3 Environmental Degradation in Kenya**

According to the Kenya Government *Atlas of Our Changing Environment Report* (2008), Kenya faces serious environmental crises. The crises are being experienced from the shrinking tea-growing areas to disappearing lakes, increasing loss of tree cover in water catchments to proliferating mosquito breeding grounds. The Report makes astounding observations on environmental degradation in Kenya between 1973 and 2007, key among them that; the land available per person in Kenya has dropped from 7.3 hectares per person in 1960 to just 1.7 per person in 2005 due to the rapid population growth of the last few decades. In addition, the land available per person will drop to 0.3 ha per person by 2050. The Report further notes that the Mau forest complex, a key water catchment is being deforested at an alarming rate due to charcoal production, logging, encroachment and settlement, though the government has now embarked on an ambitious plan to conserve it. Lakes across the country are under intensified pressure with Lake Naivasha struggling to



cope with the expanding settlement and flower farming in the town. It's estimated that about half of the mangroves on Kenya's coast have been lost over the past 50 years due to overexploitation of wood products. Yet although the government is trying to address the problem of environment deterioration, there still remain challenges on the road to achieving environmental sustainability, notably limited government capacity for environmental management and institutional and legal frameworks for enforcement and co-ordination. Deforestation, land degradation and water pollution are some of the key challenges that Kenya needs to address to achieve millennium development goals and vision 2030.

The foregoing observation shows that degradation of resources continues to be a problem due to limited government capacity and institutional and legal frameworks. This in a way suggests there is need for a diversified approach to deal with the problem. The current study employs a religious perspective to understand the problem and it is hoped that this will greatly complement efforts already being made to curb further environment degradation in the study area. The study findings may be used to encourage the Church in the study area to begin supporting the government efforts on environmental conservation, and hence offer a partial solution for the problem experienced by the government of limited grassroots support to environmental conservation efforts.

Mironga (2005) has studied the wetlands of Kisii County and observes that they are presently threatened by expansion of settlements and cultivation, brick making and urbanization. There is rampant damage in the County and hence the urgent need to preserve the remaining systems. Already several efforts are being made through various government institutions, NGOs and Community Based Organizations. However, there is still much that needs to be done to preserve this rich ecological system of Kisii highlands. Priority needs to be given to strategies that will be appealing to all members of society in mobilizing them to spontaneously engage in practices that enhance preservation and conservation of the environment. Mironga further contends that environmental degradation has persisted in the region because the local people continue to be alienated from conservation policies while ignorant of their practices. He thus faults the government for formulation of environmental policies in the region while totally ignoring the local people. Mironga thus recommends that for effective preservation of the environment there is need for conservation policy makers to have sufficient information on the farmers' awareness of environmental issues, improve it if



possible and make farmers in the County the key focus of future environment conservation programme.

Mironga's study concentrates mainly on wetland areas of Kisii Central District and concerns itself with establishing the attitudes of the farmers on environmental issues. He however does not propose ways of developing these attitudes. On the other hand, the current study focuses on the role the Church is playing in building positive attitudes towards the environment. In a sense therefore, while Mironga's study focuses on finding out the attitude and awareness of the local people on environmental issues, the current study aims at identifying a locus on which to develop positive environmental attitudes. It is hoped that the findings of the study will give direction to policy makers on how to best involve the local people in environmental conservation.

Onyancha (1989) is of the same view that the Church can indeed be an avenue where positive environmental attitudes can be developed. He observes that provision of better medical services was one of the policies employed by the pioneer Adventist missionaries in the Kisii region to attract more converts to the Church. Provision of medical services was given a lot of significance to the extent that "each village had a school and a dispensary". Onyancha emphasizes that the SDA faith had far reaching social and hygienic impacts on those villages that embraced the faith. As he puts it, "The missionary emphasis on health and hygiene, new methods of constructing and locating homes resulted in a conspicuous social revolution in Gusii in some areas. The Adventists were educated people who valued cleanliness and family organization. Christianity was and is still considered synonymous with cleanliness-and this was supported by the missionary interpretation of the Christian God as a 'clean' God" (Onyancha, 1989:153).

Onyancha's study, though making a significant contribution towards understanding pertinent issues related to the SDA Church, is not focused on matters pertaining to the Church's potential to enhance environmental conservation in the region. In fact the main concern of his study is African spiritual response to western Christianity with particular reference to Abagusii and the SDA Church. Hence the current study contributes new knowledge towards understanding the role of the Church in the region since it engages in the study of a different aspect of the Church from Onyancha's.



Njenga (1981) posits that environmental degradation will have serious adverse implication on Kenya's economy. Hence there is a need for an urgent action on the part of the concerned institutions. He argues that so far no effective implementation of policy concerning the environment is being done. He associates this laxity with lack of established procedures for enforcement of penalties and vague laws. The current study is an effort to propose an alternative approach or policy towards achieving environmental sustainability. It is hoped that the religious perspective employed in this study will contribute an additional means toward achieving faster environmental sustainability in the study area alongside other efforts being made by the government and NGOs.

Other scholars who have done studies related to the SDA Church include Amayo (1973); Getui (1987) and Okemwa (1999) although they have concentrated on different aspects other than on environment. Amayo's study is focused on the history of Adventist Christian education in Kenya, Getui's study concentrates on the historical establishment and activities of the SDA Church among the Abagusii while Okemwa has studied the role of women in the SDA Church. Consequently this study is relevant since it contributes knowledge in an area that has not actually been addressed by other scholars.

#### **2.4 The SDA Church and Environment**

The Adventists believe that the creation reveals God's Glory (GC, 2005:83). This belief is based on Psalm 19:1-4, which says the heavens declare the glory of God and the skies proclaim the work of his hands. Hence, the adherents strongly believe that nature functions as a witness for God. This study therefore attempted to investigate how the SDA Church is using this teaching to address the environmental challenges in the study area.

The SDA adherents believe they are God's stewards entrusted by Him with time, opportunities and possessions and abilities of the earth resources (GC, 2005:302). They believe they are responsible for the proper use of these resources. Hence it is maintained that "we are stewards of this world and should do everything to maintain life on all levels by keeping the ecological, balance intact" (GC, 2005:302). This view is founded on Revelation 11:18 which says "Christ will destroy those who destroy the earth". Consequently this implies that God expects Christian stewards to be responsible not only for their own possession but also for the world around them.



The SDA Church lays emphasis on the importance of a healthy and hygienic environment. A significant portion of the Church's literature is devoted to health message and healthful living. White (2007) maintains that it's the duty of every person to become intelligent as regards disease and its causes. Equally on treatment of diseases, White says that "restorative power is not in the drugs but in nature." She notes that a natural and unpolluted environment plays a very significant role in the healing process of the patient and that environmental pollution common in most cities is to blame for most diseases. As White (2007:216) puts it "The noise and excitement and confusion in the cities, their constrained and artificial life is most exhausting to the sick –the air laden with smoke, dust and poisonous gases and with germs of diseases is a peril to life".

The SDA literature above is actually very relevant to the current environmental crisis confronting the Kenyan society. However no detailed study has been done to outline this potential in any organized manner. Truly, there is need to highlight the problem of environmental degradation and illustrate how the Adventists beliefs focus on environmental issues. Hence the current study has endeavored to investigate how best the Adventist Church beliefs are being employed as a tool for environmental conservation.

## **2.5 The Importance of Employing a Religious Perspective in Environmental Conservation**

It has been observed that several government agencies and Non-Governmental Organizations are already in the field trying to address the problem of environmental degradation in Kisii Central District. However their efforts are facing several setbacks. Within this context it is imperative that new mechanisms to protect the environment be identified. These mechanisms should necessarily entail types of symbiotic relationship with the communities.

Tu (1985) argues that religion offers a fresh perspective on the meaning of life by stressing obedience to God rather than worship of emperors, pursuit of the sacred rather than monetary goals, and love of moral virtues over social standing. It is from this position that the religious approach becomes significant and relevant to complementing efforts already being made by non- religious institutions to curb environmental degradation. Religion coerces its adherents to softly accept to join environment conservation efforts; essentially not because the



government or some other authority enforces it but because "God" has said so, and it will be sin to disobey.

Cooper (1990) posits that religion helps to articulate the full measure of the pain felt over the environmental crisis more effectively than the language of secular politics. He notes for instance that in 2000, Madagascar fisherman were convinced to stop dynamiting the ocean for fish, a practice with long term results to fish population and undersea coral ecology, when local Islamic authorities ruled that the practice violated the Qurans injunctions against wasting God's creation. The fishermen had been willingly ignoring both government pamphlets and strict laws forbidding the use of dynamite. It was only when their sheikhs applied the Quran to dynamite fishing and declared the practice widely unislamic that the trend begun to change. Since then dynamite fishing has been dramatically reduced and the plans for sustainable fishing emerged. Cooper also observes that in China Tao religious researchers of the Beijing School of Traditional Chinese Medicine are trying to protect endangered species by looking for alternative ingredients for traditional medicines. Treatment for a variety of illnesses calls for components such as tiger penis, bear gall and rhinoceros horn. Despite international bans on the hurting of many of these animals, the high price they fetch encourages wide spread poaching. Arguing that use of endangered species violates Buddhist and Taoist principles of balance of nature, these world renowned Taoist physicians are changing long used prescriptions. Hence, the wide ranging authority of the Beijing school has lessened the use of endangered species by traditional practitioners. Detailed accounts such as the ones given above on how the Christian faith is being employed as a means to achieving environment conservation in Kenya are lacking. The current study contributes relevant information that shows how the Christian faith compares with other world faiths in enhancing the global cause of environment conservation, more particularly in Kisii County.

Mcfague (1997) contends that the Christian faith has certain unique orientations and values that are quite significant for a comprehensive approach to environmental conservation issues. He is convinced that the Christian faith understands the suffering of all beings to be extricably linked to that of the whole human race. Luke 6:31 says "Do to others what you would have them do to you". Since the bedrock of Christian ethic is to care for the suffering and the oppressed neighbour, this should not be limited to human neighbours only. A religion that has so often made social justice and liberation for the oppressed a moral priority can



easily extend the agenda to the whole community of life. It's in the light of this understanding that a new branch of theology known as Eco-theology has emerged. The theology emphasizes the environmental aspects inherent in Christianity while incorporating into them findings from the latest science and forms an excellent way of responding to the global environment crisis.

The review above shows that religious appeal can be a strong tool that may be used to change society's attitude to environmental conservation efforts. Knowledge on how the SDA Church has applied its theology to environmental conservation is lacking. This study therefore sought to establish how the SDA Church applies her teachings to issues touching on environmental conservation and also how she equips her members to confront the rapidly degenerating environment.

Ongon'ga (1999) argues that with new environmental crises facing people, animals and plants every day, it is essential to consider the role of religions in creating and solving some of these crises. He suggests several ways on how the Church can participate in environment conservation. For instance, Ongonga stresses on the need for the Churches to educate their congregations on individual responsibilities towards their environment. He further proposes that Churches should be awareness creation centres where members are taught to acquire healthy habits such as cleanliness in their surroundings. Ongon'ga's arguments are to a large extent centred on environmental hygiene and cleanliness rather than conservation of the environment. The current study goes a step ahead to investigate how best Churches should participate in environment conservation, a fact that makes it much easier to achieve environmental hygiene. In general therefore this study complements Ongon'ga's work in the sense that while he focuses more on environmental hygiene, the current study focuses on environmental conservation which constitutes the basis for a hygienic environment.

Murray (2007) affirms that at other instances, coming to grips with the environmental crisis has meant that religious people become ecological activists. He argues that this is due to the fact their attempts to create the needed changes are frequently resisted by the dominant social structures of the industrialized society: profit oriented corporations and political elite more interested in preserving power than the environment. Consequently religious environmentalists are mounting a widespread challenge to the prerogatives of private property and the complicity of do-nothing (or do-too-little) governments. As observed from



above, to some extent here in Kenya the Church has not fully acknowledged the impending crisis to be able to take such a stand as noted by Murray. The Church as the moral custodian of society has the duty of questioning legal systems that have inappropriately painful effects on the weak and poor people and nations. Indeed, a Church which believes in a God who is “everywhere” has the moral obligation to question how to recognize Him in toxic waste dumps, the dead lakes and the corals bleached white by warming oceans (Murray, 2007). The current study therefore inquired on how much weight the Church is putting on issues relating to conservation of the environment and attempted to come up with information that will be relevant to making them more active in protecting the environment.

The study engaged itself in the examination of the SDA Church’s role in environmental conservation in the District while being informed and borrowing from the rationale for religious conservationism given above.

## **2.6 Causes of Environmental Degradation**

In order to be able to determine the role of the Church in environmental conservation, it is necessary to give a brief description of the factors believed to be behind global environmental degradation. Various scholars and writers have attempted to theorize on the root causes of environmental degradation.

White (1967) blames Christianity for the rapid environmental degradation. According to him, belief in Christianity systematically destroyed animism and its value system –hence affecting the greatest psychic revolution in the history of culture. In addition, White claims that because of its role in the use of modern science and technology, Christianity bears a huge burden of guilt for the present situation. She further argues that by emphasizing humanity’s transcendence over nature and by desacralizing nature, Christianity made possible the growth of modern science and technologies which in turn led to uncontrollable power over nature and the current ecological crisis. Hence Christianity is at least partially responsible for the current plight of the earth such as is the case with science. White’s argument however seems to point out that the Christian religion has nothing to offer to environment conservationists. At best his suggestions will be found more appealing to critics of the Christian religion. However a proper search of the Biblical literature will reveal that the Christian faith has a lot it can contribute to efforts to conserve the environment, a fact which White seems to



overlook. This study has therefore tried to unearth some of the underutilized potentials of the Christian faith that would otherwise hasten the much needed remedy for the environment. To sum up, some environmentalists especially the Green Movements view Christianity, as ecologically backward and morally blameworthy; as an irremediable part of the disease and no possible part of the cure.

Santimire (1976) suggests that there are indeed rich resources in the Christian tradition which humankind can ignore to their own impoverishment. He maintains that the erosion of the land, destruction of animal and plant species, excessive exploitation of natural resources and ecological disasters are not peculiar to the Judeo-Christian tradition and to scientific technology. At all times and all over the world, man's interventions into nature have had a variety of disastrous consequences or have at least changed profoundly the "complexion" of nature. Santimire rightly argues on the need for renewed critical attention to Biblical studies in order to reconsider and reconceive certain fundamental Biblical concepts concerning creation. He claims that since the Christian scriptures have been wrongly interpreted and used in ways which have fostered ecological destruction, renewed study of scripture is required to uncover distorted readings and reformulate important concepts on environment conservation.

The foregoing review on the causes of environmental degradation indicates that at one time or so Christianity has been blamed for initiating or inculcating tendencies of dominion and ruthless extraction of the resources of the earth. However this view is disputable given the contributions of such scholars as Santmire. The current study is an effort to demonstrate that the Christian faith has much to offer on issues relating to environmental conservation, contrary to views held by the critics of the faith. These divergent positions to a large extent informed and guided the investigations that have been done on the role of the Church in environment conservation in this study.

## **2.7 Theoretical Framework**

This study was guided by the Cosmic Christ Model. This model has been proposed by McFague (1993) who uses it to address the problem of environmental degradation (suffering of creation).



The Model argues that whatever happens within the cosmos, happens to God also and not just to man. The body of God, shaped by the Christic paradigm, is also the Cosmic Christ—the loving Compassionate God on the side of those who suffer especially the vulnerable and the excluded. The resurrected Christ is the Cosmic Christ. Jesus' New Testament appearance stories attest to the continuation of the Christic paradigm in the world: the liberating, inclusive love for all is alive in and through the entire cosmos.

The model regards the world as God's visible bodily presence or as the Sacrament of God. Equally the Cosmic Christ metaphor suggests that the Jesus paradigmatic ministry is available to humankind through nature. As Mcfague (1993) puts it "Accordingly, the entire cosmos is the habitat of God, but we know this through the mediation of the physical world". The sacramental tradition assumes that God is present in each and every being in creation.

The model provides a major way through which Christianity has preserved and developed an appreciation for nature. It also serves as a counterforce to the mechanistic theories which encourage domination and overexploitation of the earth and also those other models that divorce the earth from God by secularizing it.

The model is relevant to the current study on the grounds that it discourages the utilitarian attitude towards other creatures. It maintains that the nonhuman nature exists within the vast intricate web of life in the cosmos of which it and man are interdependent parts whereby each and every part has an intrinsic value. Hence human beings and the rest of nature are parts of the whole. Some parts are not merely means for the purpose of other parts, for all parts are valued by God and hence should be valued by all. The model looks at the earth and its many bodies as vulnerable and needy, and as evidence of neglect and oppression. It focuses on man's misuse of them, his refusal to accept these bodies as valuable in and for themselves and to God.

The model emphasizes that through the Christic Paradigm, elements of liberation of nature from oppression and its sustainability are sounded. The theory stresses overturning of oppressive hierarchies and liberation of the nonhuman nature. It further argues that the liberation of nature from man's oppressive practices is inevitably necessary mainly because on a finite planet with limited resources and increasing numbers of needy human beings, conflicts of interest are likely to occur.



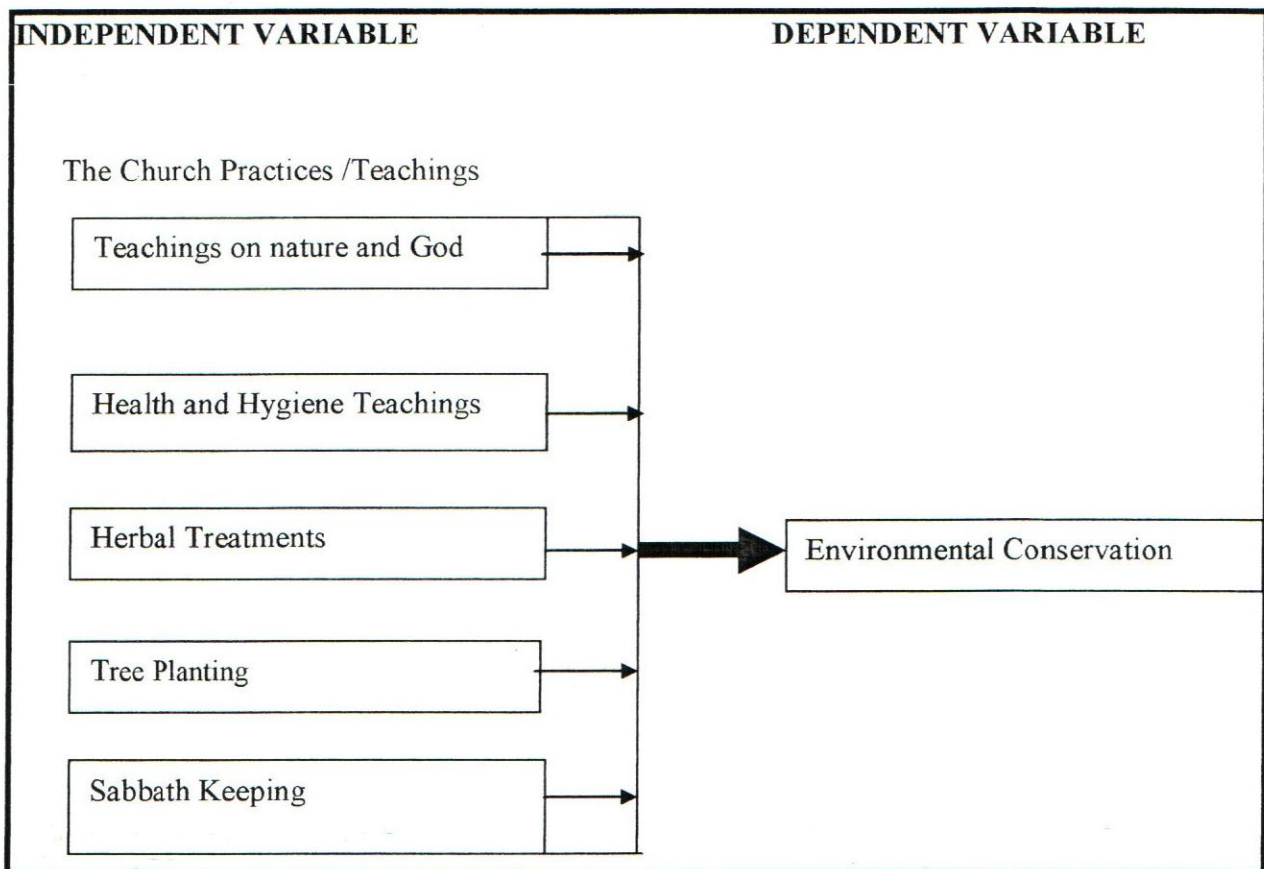
The model maintains that all parts of the planet are parts of God's body and are included in Christian liberation. Alongside liberation, the Christic paradigm focuses on the healing phase. McFague notes that the metaphors of sickness, degeneration and dysfunction are significant when discussing the state of the planet earth. Air and water pollution, the greenhouse effect, the depletion of the ozone layer, desertification of arable land and the destruction of rainforests are all signs of the poor health of the earth.

The model focuses on the basics of existence: the healthy functioning of all inhabitants and systems of the planet. It provides an avenue through which the world and all the creatures are looked at through the shape of Christ. It thus facilitates acknowledgement of the distinctive features of that form, especially liberation from destructive oppression and the healing of its deteriorating bodies i.e. conservation, which is the main agenda of this study. Consequently, the model can be a way that Christians, might at least begin to change their exploitative, utilitarian attitude toward nature.

McFague suggests that the model is generated primarily from the Christian sensibilities regarding the needs of the oppressed and the claims of the suffering individuals. He is convinced that the model is inspired by the ministry of Jesus and further argues that Christians ought to care for nature's marginalized, despised and oppressed beings, 'healing the wounds of nature and feeding its starving creatures' just as they would focus on feeding and healing its needy human beings. Thus, according to him, the model is something we can extend to the natural world as a model that is 'highly compatible with the spirituality of Jesus' ministry for it sets us in a world of radical relationality at all levels.'

**2.7.1 Conceptual Framework**

A conceptual framework is a model of presentation where a researcher conceptualizes or represents the relationship between variables in the study and shows their relationship diagrammatically (Orodho, 2005). Figure 2.1 below shows the relationship between the Church and environmental conservation.



**Figure 2.1** Conceptual Framework: Church teachings that enhance environmental conservation.

**Source: Self, 2012**

As illustrated above, a number of the SDA Church teachings and practices are responsible for promoting the ethic of environmental conservation. These teachings and practices form the constructs of the independent variable, the Church.



## **2.8 Conclusion**

In conclusion this chapter has highlighted the relevant studies and concerns that have been expressed in relationship to the subject of environmental conservation. The cosmic Christ model emphasizes on the need for strategies that make use of the environment while recognizing that it is God's habitat and hence the need to preserve it as it is being used. The SDA Church's teachings on nature and how it acts as a medium through which God reveals Himself and His love for humanity have a lot in common with what is presented by the Cosmic Christ Model. The potential for enhancing environmental conservation lying in the Church's teachings and practices has not been fully explored and documented in a single account. Indeed no single study has attempted to purposefully link the Church's teachings and practices to environmental conservation as explicated in this study. The findings of the study will go a long way to fill this knowledge gap.

The next chapter is a discussion of the research methodology employed for the study

## CHAPTER THREE

### METHODOLOGY

#### 3.1 Introduction

This chapter discusses the research methodology for the study and gives more information about the study area, sampling design, data collection and data analysis methods.

#### 3.2 The Study Area

This study was conducted in Kisii Central District of Kisii County in Western Kenya. The areas of focus within this county were the five administrative divisions of Mosocho, Marani, Kisii, Suneka and Keumbu (KCDDP, 2002-2008).

**Table 3.1:** Kisii Central District Administrative Divisions.

<b>Division</b>	<b>Population</b>
Keumbu	109,837
Kisii Central Township	37,532
Marani	89,215
Mosocho	50,247
Suneka	86,030
<b>Total</b>	<b>372,860</b>

**Source:** National Population and Housing Census, 1999.

These divisions make the Kisii Central District which occupies an area of 645km<sup>2</sup> of land. The District is predominantly rural and agricultural. About 78 per cent of the land is suitable for agriculture. The hills are known to be fertile, with adequate rainfall. The inhabitants exploit the highlands environment for cash crops such as coffee, pyrethrum and other agricultural products such as millet, maize, bananas and cassava. Little land remains uncultivated. According to the Kenya National Census of 1999, Kisii Central District had an estimated population of 372,860. The district is not well served with adequate infrastructure like electricity, telecommunications and good roads.



Location of Kisii Central District in Kenya

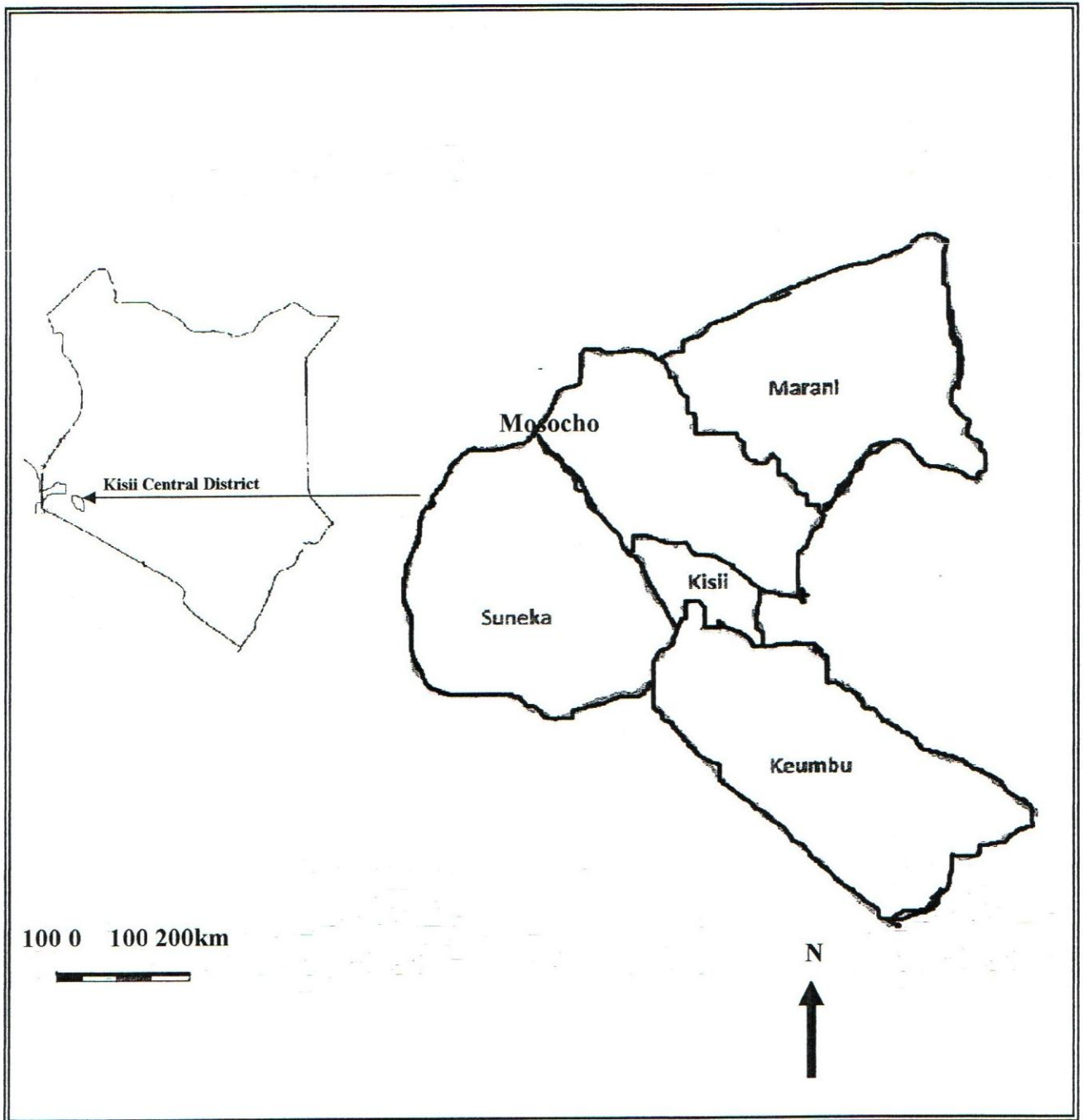


Figure 3.1: Location of Kisii Central District

Source – Kisii District Development Plan - 2002-2008

Kisii Central District has several permanent rivers and streams that drain into Lake Victoria (KCDDP, 2002-2008). However, environmental degradation is increasingly becoming evident day by day with some of the rivers losing large volumes of water. This is partly due to rampant growing of blue gum trees along the banks of almost all rivers and springs in the region (see Plate 3.1 below).

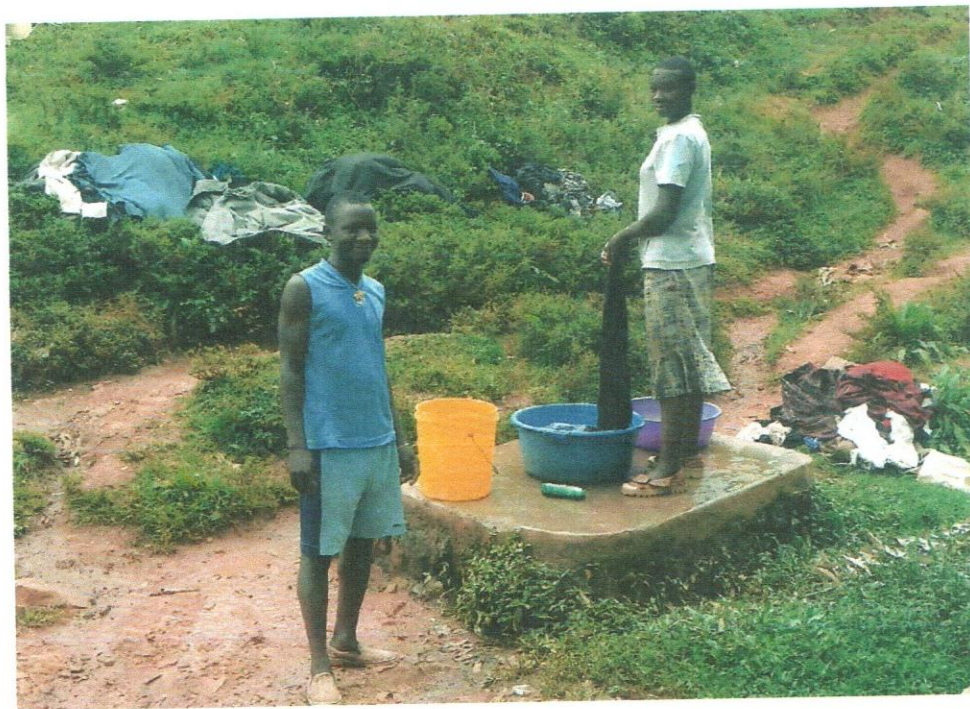


**Plate 3.1:** The photograph shows the blue gums planted next to a river spring in Kisii Central District (Photograph Taken on 4/4/11)

It is therefore not surprising to find misfit streams in large and almost empty valleys that were once filled by large volumes of water. Hence it is not uncommon to find women and children making long queues for water on some springs whenever short dry spells are experienced in

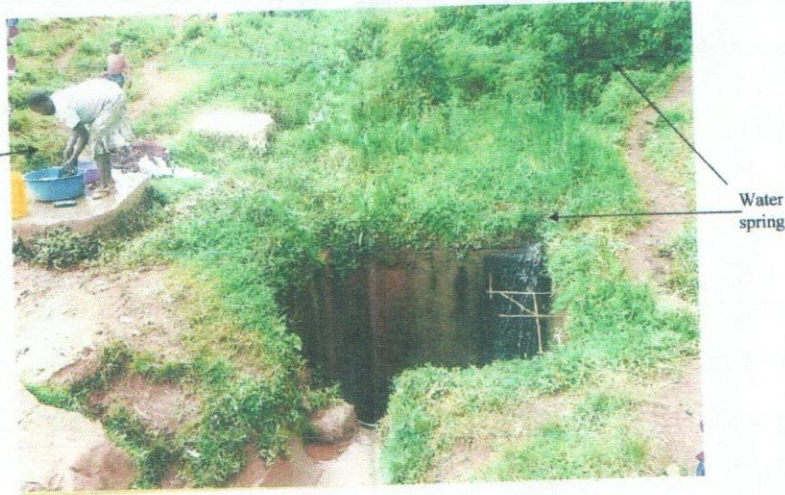


the region, a phenomenon that could never happen in the region in the past few years. Equally, water pollution caused by unhygienic practices such as washing of clothes next to water springs and rivers (See Plate 3.2 and 3.3), untreated sewerage effluents from coffee and tea factories, oil leakage and pesticides and fertilizers used on the farms is becoming a health hazard in the District. Some areas of the District are experiencing severe soil erosion due to the hilly topography of the region. Another related fact is that forest cover in the region has diminished rapidly over the past few years due to encroachment and illegal logging. In urban areas, particularly Kisii town, the drainage and sewerage system sometimes overflow and pollute nearby rivers and streams



**Plate 3.2** Young people washing clothes next to water spring near Kisii Town

(Photograph Taken on 4/4/11)



**Plate 3.3:** A girl washing clothes next to a water spring near Kisii Town

(Photograph Taken on 4/4/11)

### **3.3 Research Design**

The study employed a case study research design. The design facilitates a detailed assessment of a single instance which for this study is the SDA Church and its role in environment conservation in Kisii Central District. By using this design, it was possible to evaluate the unique aspects of the research topic in the study area. The researcher opted to use this research method considering the objective to obtain first hand data from the respondents. The method was found to be advantageous because due to its flexibility the method can use either qualitative or quantitative data or both, giving the researcher greater options in selecting the instrument for data-gathering. Equally, the aim of the research was to determine the role and potential of the SDA Church in Environmental Conservation; hence the method was then appropriate for the study since it could be used for gathering and conveying information about the prevailing conditions.

### **3.4 Target Population**

The target population was all the SDA Churches in the five divisions of Kisii Central District in the Kisii County and the unit of analysis was all the SDA members in the five divisions.



The divisions have a total of 80 organized Churches and a total of 26,800 active members. However, estimates show that another group of about 120,000 people in the region professes the Adventist Faith although it does not attend Church services regularly (SKC of the SDA Church, Kisii Central District, 2009).

### **3.5 Sampling Design**

The study employed both simple random sampling and purposeful sampling to identify the respondents. The sample frame was obtained from South Kenya Conference of the SDA Church in Kisii County. The accessible population included the people of the study area.

The various churches in the area have been grouped into eight large congregations which run across the five divisions. These congregations are also referred to as Church Pastoral districts. In order to answer the research objectives, the researcher opted to obtain the view of Church leaders and other stakeholders in the sector of environment in line with the study topic. Specifically, a total of 100 respondents made up the selected sample. These included Adventist Church leaders of different levels and also other informed people in matters related to environmental conservation in the study area such as environmental officers, local administrators and workers with NGOs who were purposefully selected to make up the sample. The participants answered survey questionnaires while others participated in interview schedules. Data gathered from this research instruments were then compiled for interpretation. Along with primary data, the researcher also used secondary resources in the form of published articles and unpublished materials to support the survey results.

### **3.6. Data Collection**

Data was collected by use of interview schedules and questionnaires. The questionnaires contained questions that sought information on the role of the Church in environmental conservation. This made it possible to come up with meaningful data on the topic under study. The fieldwork was done within a period of two months. The questionnaires were divided into two parts and were used as the data-gathering instrument for this study (See Appendix I). Part one contained characteristics of the respondents such as age, gender, marital status and the number of years they had served as Church leaders. Part two explored the perceptions of the respondents on the environmental challenges confronting the District, their



awareness of benefits accruing from a well conserved environment and their knowledge of the Church's literature dealing with environmental conservation. Part two also contained questions that sought to know how frequently environmental education is offered in the Church, the various forms of environmental teachings given and recommendations on how best this can be improved.

The interview schedules were used to collect information from other respondents especially those who deal directly with matters related to the environment. These included people like environmental officers, forest officers, chiefs and also senior Church leaders. The interview schedules were used to obtain in-depth information on the study. The interviews were conducted during the two months data collection period. The interview sessions also offered an opportunity to the respondents to rate the Church's involvement in environmental conservation activities based on its beliefs and teachings.

### **3.6.1 Reliability and Validity of Research Instruments**

A pilot study involving ten participants was done in Nyamira District to determine the effectiveness of the research instruments to elicit relevant information. Test re-test technique was used within a period of two weeks. Spearman's Correlation Coefficient was used to determine the coefficient of correlation whose value was 0.612 which was reliable.

Equally, the validity of the instruments was tested by giving out the questionnaire to be used for data collection to the study supervisors and research experts in the department of Philosophy, History and Religious studies of Egerton University. They provided a feedback and their recommendations were incorporated in the final questionnaire.

### **3.7 Data Analysis**

A significant quantity of data was collected. Qualitative and quantitative data analyses were used to analyze the data. The combination of the two methods was for corroboration purposes. This was intended to make it easier to highlight the role played by the Church and to offer explanations wherever possible. This method was meant to analyse and present information about the present situation in the study area. It also made it possible to formulate rational and sound conclusions and recommendations for the study.



Field notes were summarized on cards. Primary data was then incorporated with secondary data. The raw data was arranged thematically using card system according to the objective. Qualitative analysis of the data involved description, classification and interpretation of the data. In descriptive analysis, the various activities as well as ways in which environmental conservation is enhanced by members of the Church were described as they occur. In classification, the data was classified according to content, for instance, the SDA teaching on environmental conservation under Christian principles of environmental conservation. Interpretation was then used to analyze the data and to conceptualize it, for example through examining the Church's teaching on vegetarian diet and the Sabbath, the research was able to identify a significant relationship between the two aspects on the one hand, and environmental conservation on the other. Finally after the data was classified and interpreted, it was then synthesized resulting in the various chapters which gave the study its present form and shape. Information collected has been summarized using tables and graphs to draw conclusions.

### **3.8 Conclusion**

The foregoing chapter has presented the research methodology for the study. It has also highlighted the state of the environment in the area and also why it is necessary for all the stakeholders in region to join hands to curb further environmental degradation. The following Chapter presents the study findings and relevant discussions of the findings.

## CHAPTER FOUR

### RESULTS AND DISCUSSION OF FINDINGS

#### 4.1 Introduction

This chapter discusses the research findings for the various objectives of the study. To achieve the relevant information, certain inclusion criteria for the respondents were applied. The respondents who qualified for sample selection had to be SDA Church leaders or staff of organizations dealing with environmental issues in the region. This qualification ensured that the participants understand the nature and activities of the Church in the region. Hence among them were senior SDA Church pastors and several Church Elders. Some of them are still leaders of the South Kenya Conference, as of the date of writing this thesis.

Equally the study relied on scholars who are adherents of the SDA Church. These included several teachers and principals of secondary and primary schools, Chiefs and environmental officers. In terms of age, most of the respondents were over 30 years. Only a few youths were included. This was meant to ensure only people who have had a longer encounter with the Church participated in the study and could therefore give accurate information.

In terms of education, most of the respondents had secondary education and above. Effort was made to get information from SDA scholars and environmental officers most of whom have college education and above. These were found very significant to this study because they were able to understand easily the purpose of the study, filled the questionnaires with little difficulty and in fact contributed very productively to this study. They were able to give the right image of what is happening in the Church in terms of environmental conservation with little difficulty and in most instances they were more objective in their responses than those who had secondary education or below. As shown in Table 4.1 below, 80% of the respondents had college education and above, a fact which makes the findings of the study highly dependable.



**Table 4.1:** Demographic characteristics of the respondents

Respondent	Males	Females	Degree	College	secondary	Total
Pastors	42	3	25	20	0	45
Elders	18	9	9	4	14	27
SDA Scholars	8	5	10	3	0	13
Environmental Officers/NGOS	6	4	9	0	1	10
Youths	3	2	0	0	5	5
Total	77	23	53	27	20	100

Equally, certain ethical issues such as confidentiality and consent were addressed. The consideration of these ethical issues was necessary for the purpose of ensuring the privacy of the participants. In order to secure the consent of the selected participants, the researcher relayed all important details of the study, including its aim and purpose. By explaining these important details, the respondents were able to understand the importance of their role in the study.

#### **4.2 The Role of the SDA Church in Environmental Conservation in Kisii Central District**

This section presents the research findings for the first objective of the study which was to identify the role the Church is playing in environmental conservation in the District. The relevant research question was: What role is the SDA Church playing in environmental conservation in Kisii Central District? The responses to the question are presented below and are then followed by the related discussions.

#### 4.2.1 Environment Related Practices and Teachings

**Table 4.2:** Activities/Practices relevant to environmental conservation engaged in by the SDA Church

<b>Practice/Activity</b>	<b>Percentage of Respondents who Identified the Practice/Activity</b>	<b>Total</b>
Allocation of time for	94	100
Environmental teachings		
Tree Planting	31	100
Environmental Hygiene	84	100
Farming Practices	45	100
Herbal Treatments	40	100
Teachings on Nature	89	100
Teachings on stewardship	80	100
Sabbath Keeping	75	100
Vegetarianism	91	100

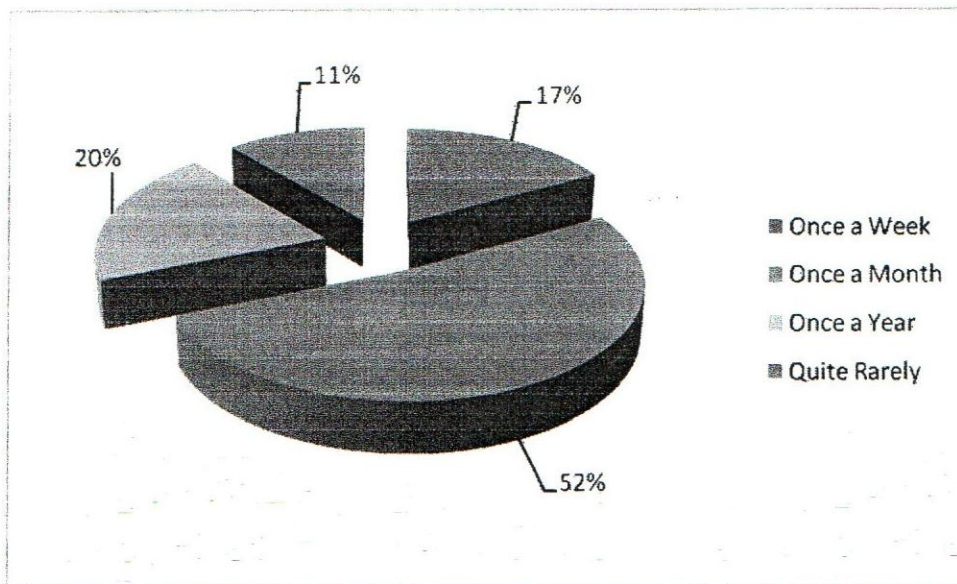
The study findings in Table 4.2 above indicate that teachings related to environment and environmental care are quite central in most of the programmes conducted in the Church. To establish the role of the Church on environmental conservation, this study sought to find out from the respondents the practices and content of the teachings taught in the Church that is related to environmental conservation. The research question for collecting relevant data had asked the respondents to give some of the practices and content of what's covered that is relevant to environmental conservation in their Churches.

The results presented below indicate that the members are generally well equipped with the knowledge that has significant relevance to environmental conservation. Various practices and activities that the Church engages in which the respondents felt enable the adherents to develop concern for environmental care and protection were identified. These are listed in Table 4.2 above. The table also shows the percentage of respondents who identified the practice/activity out of the total number of respondents who participated in the study.



#### 4.2.2 Allocation of Time for Environmental Conservation Education

In responding to the key question, the respondents pointed out that the SDA Church plays a role in environmental conservation in terms of allocating time for environment related teachings and practices. The respondents had been requested to indicate if there are programmes conducted in the Church aimed at teaching the members on the need for environmental conservation. The findings of the study indicate that 94 respondents out of 100 affirmed that the Church has provision for times when environmental issues are addressed (see Table 4.2 above). Alongside the inquiry on whether the Church offers programmes on environmental conservation, the members were further asked to indicate how frequently the programmes are offered in the Church. Figure 4.1 below show the observations made.



**Figure 4.1:** Frequency of programmes offered in the Church on environmental Conservation in the SDA Church

The findings presented above illustrate that the Church generally allocates time for conveying teachings related to environmental conservation. Although the respondents gave diverse opinions on how frequently the Church offers the teachings, there is consensus that the Church is involved in offering teachings related to environmental conservation. The observations recorded in Figure 4.1 above confirm this view.

Further, a higher percentage (52%) of the respondents observed that teachings related to environmental conservation are offered in the Church at least once a month (see Figure 4. 1). Church programmes and activities such as those of the Pathfinder Club and Health and Temperance which are conducted on a regular basis offer opportunities for delivery of environmental education significant to environmental conservation. At such programmes much is taught which is quite relevant to the subject.

The findings imply that since the Church allows time for teachings related to environmental conservation, there is a high possibility that greater levels of environmental awareness can be achieved in the study area through the Church if actual programming for teachings addressing the subject is done on a regular basis. Consequently, there is need for effort to be made by the Church to outline the subject of environmental conservation and emphasis on conservation be prioritized. This will subsequently enable the different programmes in the Church related to environmental conservation to be broad based in their focus. Hence they will be able to emphasize their spiritual aspects without underestimating or compromising the environmental ones.

#### **4.2.3 Tree Planting**

The SDA Church encourages its members to engage in tree planting in the study area. Trees play an important role of attracting rainfall thereby preserving the water catchment areas and also help in curbing soil erosion since their roots keep the soil together hence reducing the rate at which it is washed away. Table 4.2 above shows that 31% of the respondents indicated that tree planting is one of the practices taught by the Church that enhances environmental conservation. This percentage however implies that a larger number of the members have not started engaging in tree planting with the sole objective of environmental conservation. It may also imply that the Church has not given tree planting the degree of emphasis it requires so as to contain the rising level of deforestation.

Indeed one of the reasons for the kind of situation observed above could be the fact that tree planting in the Church is encouraged in as much as it is related to health and for aesthetic reasons. For instance, members are taught the various types of trees with medicinal value and also on how to conserve them especially by setting aside some portion of their land where the trees can be planted. The SDA Church cherishes environmental beauty or beauty



associated with the natural world. For this reason members are encouraged to plant various types of flowers around their homes (White, 2004). This aspect of encouraging tree planting in itself is quite relevant to environmental conservation. Alongside teaching members to plant the trees for the reasons stated above, if the Church could single out environmental conservation just for its own sake, greater achievements can be attained toward conserving the rapidly dilapidating Kisii Central District environment. Consequently, there is need for the Church to come up with a clear policy on tree planting which will incorporate both the espoused reasons of the Church for tree planting and also for the sake of environmental conservation.

#### **4.2.4 Environmental Hygiene**

The study established that the Church's teachings focus on environmental cleanliness. Table 4.2 above shows that 84 per cent of the respondents admitted that the Church offers teachings related to environmental hygiene and cleanliness. The respondents indicated that at times the Church makes practical effort by participating in cleaning up garbage in the market areas of the Kisii County. These teachings form the basis for the argument that the SDA Church has a huge potential for enhancing environmental conservation. In addition, a lot of emphasis is placed on teachings related to personal health and general health. These are based on the book of 1 Corinthians 6:19 which says "...Your body is a temple for the Holy Spirit which you have from God" and also 3 John 2 in which says that God wishes that all his people be in good health. As a result of this, the Church stresses on the need for maintenance of a clean air environment and proper and safe use of water.

According to Pastor Ezekiel Omanwa (O.I, 6/4/11), the teachings related to environmental conservation are a core teaching of the SDA Church. Pastor Omanwa notes that the teachings on the environment are founded on the creation stories of Genesis Chapter 1 and 2. Another respondent, Pastor Zablon Nyanumba (O.I, 11/4/11) argued that the Church takes conservation of the environment seriously and that this is underscored by the importance associated with the Sabbath observance in the Church. He further suggested that the Church members are taught on responsible use of natural resources, for instance trees. This is done by encouraging members to make use of energy saving "Jikos" in an effort to curb deforestation.



#### 4.2.5 Farming Practices

The study findings show that the SDA Church adherents are taught by the Church on new methods of farming which help to enhance environmental conservation (see Table 4.2 above). This is done by inviting environmental experts especially on Sabbath afternoons who teach the members on how to maximize production of food and other agricultural needs from a limited land surface while maintaining a clean and safe environment. Such teaching is given with the hope of curbing over cultivation of the limited land and deforestation. The Church teaches the members on soil conservation techniques especially those occupying areas prone to soil erosion, particularly the steep areas of the Kisii County. Some of the soil conservation techniques taught by the Church and which been applied in the study area include making of terraces along the slopes, placing gabions, planting trees and also by planting cover crops in areas prone to soil erosion(see Plates 4.1 and 4.2 below ). Placing of the gabions is one of the steps that have been undertaken by the government to curb further soil erosion.



Gabions

**Plate 4.1:** The use of gabions by the government to conserve soil from erosion at Jogoo near Kisii town. (Photograph Taken on 4/4/11)





Contour  
cropping

Terraces

**Plate 4.2:** The use of terraces and contour cropping to curb soil erosion at **Getare**, near Kisii town (Photograph Taken on 4/4/11)

#### 4.2.6 Herbal Treatments

A significant portion of the Church's teachings focus on content related to nutritional plants and herbs for treatment of some diseases. This aspect subsequently amounts to a strategy that can be employed for environmental conservation.

It was noted that the Church encourages the use of medicinal herbs for treatment of common ailments. This practice is generated from past practices which indicate that the early Romans, Egyptians, Persians and Hebrews used herbs extensively to cure practically every known illness (Balch, 2000). The practice was quite common in the early Hebrew culture in which a lot of spirituality was attached to the gathering and use of herbs. The herbs were used medicinally and ceremonially. It's now widely held that many herbs contain powerful ingredients that if used correctly can heal the body. The Church's focus on herbal medicine could be due to the fact that in the recent past there has been a renewed interest in use of



herbs globally which reflects increasing concern about the side effects of the powerful synthetic drugs as well as the desire by many people to take charge of their own health, a policy so much endeared to the SDA Church. Balch (2000) notes that further researches on herbs by the Church have led to discovery of healthful benefits of tasty herbs for cooking and aromatic herbs for enhancing and helping to balance mental, spiritual and physical health. Some of the respondents indicated that they have been encouraged by the Church to set aside part of their land to plant and conserve the herbs especially those threatened by depletion. Pastor Nyakundi (O.I 14/4/11), one of the respondents to the study, indicated that he alone has set aside a portion of his land where he has planted and conserved over 1000 different types of trees and herbs! These include even the exotic species.

During the study, it was realized however, that some of the cherished herbs had been depleted from the region. Examples of the almost depleted species in their local names are *Omokorogotwa* and *Rikanda*. Other rare species threatened by depletion and which need urgent measures to protect and conserve are *Omonyantira*, *Mote'itimo*, *Mote'kebaki*, *Omonyangeene* and *Omotaraganga*. Apart from the herbs, other indigenous trees threatened by depletion are *Omotembe*, *Omokonge* and *Emenyenya*. Although such trees were common in the region in the past, a point confirmed by the fact that several places have been named after them, the truth is that they are currently found quite rarely and most young people may not even be familiar with them.

#### **4.2.7 Teachings on Nature**

The study findings show that the Church's teachings lay a lot of emphasis on the relationship between God and nature. In the Church it is believed that another source of God's self-revelation other than the Bible is nature. It is held that "There are two major sources of evidence for the existence of God; the Book of nature and scriptures" (Adventist Belief, 2005:25). This statement suggests that nature and the Bible are equivalent sources through which God reveals Himself. Given the special regard all Christians associate with the Bible as God's Book, one would readily comprehend how much regard is attached to this "Book of nature" among the Seventh-Day Adventists. It is this attitude to nature that makes care and preservation of nature spontaneous among the believers. Equally, the Adventist literature indicates that the Church's adherents believe that the created world reveals God's glory. The study established that the Church inherently believes that the natural environment in its



unpolluted state is a manifestation of God's love for mankind. This view is based on the Adventist literature which stipulates that nature manifests God's love (White, 1988). White says that this love is displayed by nature's marvelous adaptation to the needs and happiness, not only of man but for all living creatures. She further maintains that God's love is written upon every opening bud, upon every springing grass and that the lovely birds and the lofty trees of the forest with their rich foliage of living creatures – all testify of the tender, fatherly care of his children. This position held by White who is one of the founders of the SDA movement forms the basis for the SDA Church involvement and active participation in matters concerning conservation of the environment.

The Church's teaching on God's purpose for nature implies that the natural environment is a medium through which God manifests Himself and His love to man. Essentially therefore nature manifests God's presence. Consequently, since any object that represented God's presence in the Bible was treated as sacred, it follows then that the natural environment is sacred according to the Church's literature. This attitude to nature is in harmony with McFague's Cosmic Christ Model in which he contends that "accordingly, the entire cosmos is the habitat of God, but we know this through the mediation of the physical world" (McFague, 1993:287). This teaching therefore illustrates the SDA Church's mandate in environmental conservation. It has that divine responsibility to take care of the environment because through it God continually manifests Himself and His love to the sinful world. In fact if the Church will not protect and preserve nature, it may be difficult for it to use a heavily polluted environment to display this marvelous love.

#### **4.2.8 Teaching on Stewardship**

The SDA adherents believe that it is their divine mandate to take care of and safeguard the earth's resources (see Table 4.2 above). The Church teaches its followers that they are responsible for the proper use of these resources. Hence it is maintained that "we are stewards of this world and should do everything to maintain life on all levels by keeping the ecological, balance intact" (Adventist Belief, 2005:27). This view is founded on Revelation 11:18 which says "Christ will destroy those who destroy the earth". Consequently this implies that God expects Christian stewards to be responsible not only for their own possession but also for the world around them.



Stewardship is a fundamental doctrine for the seventh day Adventist Christians based on the belief that God at creation established the first humans as the caretakers of the world and that this responsibility has passed to all progeny of that original couple. An SDA also believes he is steward of the earth, that Christians must be concerned for the health and wellbeing of rivers, oceans, forests, jungles and all the species of the animals and plants and insects as well as every other person (General Conference of SDA, 2005). All of these were created by God and belong to God. It is the responsibility of the stewards to take care of God's possessions until his return. Not only is the origin of stewardship tied to creation, but just as important it is also linked to the rebirth of the Christian in Christ.

Stewardship is generally associated with money especially the tithe and with the support of the Church as a whole, but it also includes management and use of talent and skills and sharing of possessions and resources within the certain knowledge that everything belongs to God. Christians should also be cheerful in taking care of earth resources. It a central teaching of the SDA Church that Jesus is the King and is coming back soon, with both rewards for those who have done rightly and punishment for those who have done wrong as stated in Revelation 11:18.

#### **4.2.9 Teaching on Sabbath Keeping**

Sabbath keeping in the SDA Church provides a unique opportunity for the Church's involvement in environmental conservation. 75 percent of the respondents supported this view (see Table 4.2 above). Seventh-day Sabbath keeping is one of the key beliefs that distinguish the Seventh- Day Adventists from the other protestant churches (Schwarz, 1979). Significantly, this point of departure from the Churches forms the focal point between Adventism, environment and nature. According to Moltman (2006) the Seventh-day (Sabbath) is regarded as the Feast of Creation in the Old Testament. While claiming that the Sabbath has an ecological significance, Moltman notes that the Sabbath is "the crown of creation". He argues that through Sabbath rest, the people who celebrate the Sabbath recognize nature as God's creation and let it be God's beloved creation. He sees the Sabbath as a wise environmental policy.

Among the ancient Jews, a Sabbath Year for the land and for the people who lived in the land was celebrated (Moltman, 2006). This is shown in Leviticus 25:4 which says "in the Seventh



year the land shall keep its Great Sabbath of the land". Equally, according to Exodus 23:11 every seventh year, nobody was to till the ground – but to let it rest. In this year, every Israelite was not to plant or till the ground so that the land could come to rest. By doing this, the 'social reason was complemented by the ecological one'. The command to obey the observation of the Sabbath Year was so compelling to all people to the extent that those who did not obey it could be taken to exile. The essence of the Sabbath Year was to allow the land to rest and probably leave it fallow so it could recover its lost nutrients in the past six years—a practice which has overtones of conservation.

It is against this backdrop that a clear picture of the SDA Church's attitude to environment is painted. The weekly celebration of the Sabbath by Church's adherents is a constant reminder of the creative work of God. According to the findings, the Church's observance of seventy day Sabbath is not related in any way to common practice among early Jews. It's believed that seventh day worship in the Church is connected to Sabbath worship that was commenced by God himself in the first week of creation whose commemoration was of the perfect state of the world that God had created (Genesis 2:2-3). The observance of the Sabbath is therefore tied so much to creation events of the first week of the universe. In that week, the earth was perfect without any blight of degradation. The continued weekly observance of the ceremony is a constant reminder of the condition of the earth at creation and a clear appeal to the Church's adherents to continue with efforts geared toward the preservation of that initial goodness. It is this kind of background that makes the Adventist Church quite relevant to the subject of conservation of the environment.

It is a basic Adventist belief that celebrating the Sabbath directs the believers to contemplate about God's created works. White (1999) observes that the Sabbath was established as a perpetual memorial of God's completed creation work and that the first man and woman were first made in the image of God and were charged with the responsibility of caring for it. Hence it is argued that the Sabbath laws are God's ecological strategy designed to preserve the life which He created. It is held further that in its rest and its rhythmical interruption of time, the Sabbath is also the strategy which can lead people out of the ecological crisis.



#### 4.2.10 Teaching on Vegetarianism

SDA adherents are known for their traditional beliefs and practices, such as their adherence to a vegetarian lifestyle (White, 2007). They believe that any eating should honour God. The vegetarian diet recommended by the SDA Church includes the generous use of whole grain beans, cereals and fresh vegetables and fruits. Vegetarianism has been employed at other occasions as a strategy for environmental conservation in most parts of the world and this view was supported by 91% of the respondents in the study area. The 2006 "*United Nations Report on Environmental Hazards of the Meat Industry*" argues that one of the top two or three most significant contributors to the most serious environmental problems is directly linked to meat eating. And according to the 2006 Greenpeace Report "*Eating up the Amazon*", more than 2.9 million acres of Rainforest were destroyed in 2004-2005 crop season in order to feed factory farm animals.

From the above observation it can be concluded that the SDA Church advocacy for vegetarian diet can be the basis for the teaching on environmental conservation. Indeed, Getui (1999) argues that those who voluntarily refuse to eat both white and red meat and so become vegetarians are the people who encourage recycling of paper, glass and metals to save the world from further destruction of its natural environment.

In conclusion, it can be said that the SDA Church teachings related to environmental conservation presented above are the basis for its involvement in environmental conservation in Kisii Central District. These teachings are the foundation for SDA Church environmentalism. They are the reason why the Church should and is expected to give a hand towards solving problems related to environmental degradation. If nature is God's second Book through which he reveals himself to man as is the Adventist belief, it is expected that the Church must contribute towards preservation of that 'Book'. Equally teachings on Sabbath keeping, vegetarian diet which must come from unpolluted environment and also nature and healing, all espoused by the SDA Church mean that clean and unpolluted environments are central to the Adventist Church teachings and principles. It is this unique relationship between the Church and environment that makes the Church quite relevant to the subject of environmental conservation.



Given that the Church is widely spread in Kisii Central District, a region which has started to experience rapid environmental degradation (KCDDP, 2002-2008), it is expected that this special relationship that exists between the Church's teachings and environment can be a basis for networking the local communities with the other stakeholders in the region who are interested in conserving the environment so as to stem up the problem. This is true mainly because the factors behind the rapid environmental degradation in the region given by the respondents can be easily controlled since they are as a result of human activities. These include rapid clearing of forests due to high demand for wood products such as timber and fuel wood, poor cropping methods, excessive use of chemicals in agricultural farms, ignorance/negligence and planting of blue gums near river banks. Other reasons cited to be behind environmental degeneration include climate change and pollution associated with presence of tea processing factories in the region.

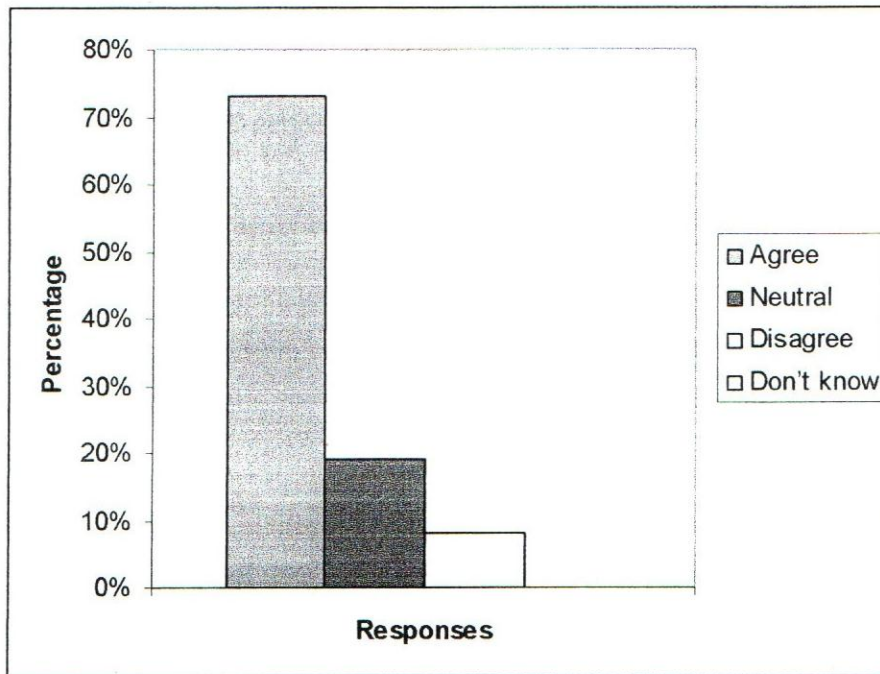
#### **4.3 The Place of Plants in the Bible**

Alongside the Church's emphasis on vegetarian diet, generally in the Bible plants are shown to have a special position in the plan of creation and also in other applications in the day to day life of the people in the Old Testament times. Plants were and are useful for food and the most outstanding quotation of the Bible that supports this view is Genesis 1:29, which says the plants were given to man for food. Other Biblical uses of plants are that they provided the initial home for man in the Garden of Eden (Genesis 3:9) and were also used for construction, for instance they used by King Solomon in the construction of the temple. Various types of trees were used also in the making of Noah's Ark and hence provided shelter during the Flood. Other plants in the Bible were useful for medicinal purposes for instance the Hyssop, a grey green marjoram plant was used as a spice and had medicinal properties. Thus it was both a nutritive and a healing agent (Leviticus 14:6-7; 49-51). Equally hyssop was used in the original Passover ritual and also in the day of cleansing a leper or a house, men or items regarded unclean due to contact with the dead. These instances show that hyssop as a plant was regarded as a powerful cleansing agent.

To establish if the Church's adherents understand the Biblical teaching on the uses of plants, the respondents were asked to show if they are conversant with these teachings of the Bible on the uses of plants. This was done by using a 4-point Likert Scale and the research findings are shown in the Table below.

**Table 4.3:** SDA Church adherents' awareness on the Biblical teachings on uses of plants

Agree	Neutral	Disagree	Don't know
73%	19%	8%	0%



**Figure 4.2:** SDA Church adherents' awareness on the Biblical teachings on uses of plants

The fact that the adherents are aware of the Bible's teaching on the purpose and uses of plants (see Figure 4.2 above) implies that they understand God's plan for plants in relationship to God. This fact paves way towards understanding how the Church relates with plant environment. It also creates eagerness in one to search more on how this awareness is impacting on conservation of the environment in the region.

In conclusion, it's noted here from Table 4.3 above that the respondents acknowledged they understand the fact that plants exist within the framework of Biblical creation stories and are there for the good and wellbeing of man. Further it may be noted that the initial creation plan was that man would coexist with other creatures in the world as observed from the place that God put the plant community alongside man.



#### 4.4 Other Practices that Enhance Conservation of Environmental Resources

Besides the teachings on vegetation observed above, the study sought to establish if the Church engages in other practices that make it easier for its members to embrace teachings related to environmental conservation. The respondents were requested to give some of the Christian teachings on managing and conserving the environmental resources offered in their Churches. The study findings collected through oral interviews are presented in the table below.

**Table 4.4:** Other practices that enhance conservation of environmental resources

Practice	% of Respondents Who Identified the Practice	Total
Teachings for Children on Nature	76	100
Teaching on Use of water	90	100
Outdoor Events	70	100
Sabbath School Teachings	85	100

##### 4.4.1 Children and Nature

Environmental teachings are offered to Church members right from childhood (See Table 4.4 above). This is based on Church the principles for upbringing of children which hold that parents should take and expose their children to nature and enable them to see how sin has damaged God's nature (White, 1999). Hence the various children groups in the Church are given spiritual instruction which includes training for respect and appreciation of nature as God's handwork. This instruction is evident in one of the children clubs in the Church known as Pathfinder Club. The club mainly offers training for young people aged between 10-15 years. According to the respondents, significant training on environmental education is given to these young Adventists. Key environmental teachings offered at this level include the study of various trees and their uses, different types of insects and how to relate with them. Other teachings also offered include the various types of herbs with medicinal value and the diseases they cure. The members of the club are also taught the different types of birds, where they stay, where they lay their eggs and the significance of the presence some birds at a particular place. For instance, they are taught that presence of vultures at a particular place



may suggest that there is a dead animal at that particular place. It was noted that the children are also taught to identify even the meaning of the manner in which some birds chirp. It was noted very often chirping of some types of birds may imply presence of some danger like presence of a snake. Essentially therefore it can safely be concluded here that the children try to learn the language of the birds. The members of the club are also given skills on how to identify trees with medicinal value.

In conclusion it can be said that the SDA Church offers crucial environmental education to young the people. The skills given to this class create a positive attitude to nature and offer invaluable training that can be tapped to enhance a sustainable and well-conserved environment.

#### 4.4.2 Teaching on Use of Water

The Church lays a lot of emphasis on health teachings to its members. More teaching focuses on the use of water in all its domestic applications. All Adventist members are encouraged to make proper use of water in maintaining home hygiene. Their literature is very clear on the reason why they should take plenty of clean water. Sidney (1997) says that the human body is 75 per cent water and the human brain 85 per water. For this reason it is held that water must be conserved and be kept clean for human use. It was realized that the culture of boiling water for drinking in the study area is believed to have been started by the Adventists and rarely can one be served unboiled or untreated water for drinking in an SDA family (Onyancha, 1989). Hence the members are urged to participate in conserving and preserving water sources. A clear example here is when they are urged to keep toilets far from springs where drinking water is fetched from.

The essence of urging the members to use clean water adequately has several implications on water and environmental conservation. It means that water sources must be protected to ensure clean. Equally, the fact that the Church urges its members to use boiled or treated water implies that it is clearly understood that the natural water surfaces are undergoing degradation. Combined together, these aspects imply that the Church has a huge potential for involvement in environmental conservation. The Church could thus effectively participate in maintaining clean water sources since it teaches its members to make proper and adequate



use of water. Its involvement in environmental conservation should be regarded as being both a duty and a priority.

#### **4.4.3 Outdoor Events**

The SDA Church encourages its members to learn about God from nature in more or less the same way it would wish them to learn about him from the Bible (White, 1988:1). According to some of the respondents, this position is clearly founded on scripture (See Table 4.4 above). Some of the Biblical references which make this view concrete include Psalms 24:1-3 which says that "The Earth is the Lord's and all its fullness, the world and those who dwell therein". Psalms 19: 1-3 also supports this position by saying that "The heavens declare the glory of God; and the firmament shows his handwork. Day unto day utters speech, and night unto night reveals knowledge. There is no speech nor language where their voice is not heard."

According to Pastor Alfred Nyakundi (O.I 4/4/11), "God conveys the truth more vividly in nature as in the Bible". He further argues that without nature, "the truths revealed about God in the Bible could be quite abstract and difficult to comprehend." For this reason the Church sets special times and occasions when its members *get into contact* with nature. One such occasion is what is known in the Church popularly as Nature Walk. During such time members have an opportunity to march out of the Church premises in groups and can have a walk in the natural environment especially to places with beautiful forests, hills, valleys and even along the banks of large rivers or even lakes. Such walks are usually organized on the Sabbath day evenings at the end of the Church services. At such moments the members are able to appreciate God's creative power and his providence to man. Nature Walks in the Adventist Church are organized by different groups. They may be organized for young children aged between 3-6 years and whose class is known as Adventurers and those aged between 10-15 years and whose category is known as Pathfinder Club. As noted earlier, this class forms the level in the Church at which the Children gain most of the basic skills related to service to society and environment. Other groups that organize nature walks are youths and adult members of the Church. As result, it is generally agreed that Nature Walks and the setting aside time to get in *touch* with nature is part of the Church's culture.



Besides the Nature Walk, the Church also conducts what is commonly known as Outdoor Sabbaths. These are occasions when the Church leaders organize to conduct Church services in the open air, usually some reasonable distance away from the Church precincts. Whereas such occasions are used as opportunities for outreach, they also offer a chance for the members to get in *touch* with nature and to learn about God from the created world.

These two events, nature walk and outdoor Sabbaths, characteristic of the SDA Church show how the Church is closely attached to the natural environment. Although during these events the focus is not environmental conservation yet the fact that is clear is that the attachment to natural environment is very strong. It is this attachment that makes the activities significant to protection and conservation of the environment. The Church has obviously a positive attitude to a natural and unpolluted environment and this potential can be harnessed to facilitate a faster and effective implementation of environmental conservation strategies.

#### **4.4.4 Sabbath School Teachings on Environmental Conservation**

The SDA Church has a good record of involving its members in systematic study of the Bible. This is done on a weekly basis during Bible study programmes which are held every Saturday morning. Selected themes for study are identified by the General Conference of the SDA Church every three months. The General Conference is the overall worldwide administration of the Church. It issues a Sabbath School Bible Study Guide which organizes the themes in an orderly manner for discussion among the members. It is almost mandatory that every Adventist members gets a copy of this guideline. The guideline plays a significant role in policy issues of the SDA Church.

Among the important themes that have been featured for discussion among the worldwide followers of the Church in the Bible Study Guide is the theme of environmental conservation (Sesei, 2010). In the guide, the Church members are informed that environmental degradation is a consequence of sin. It is taught that due to sin the environment became hostile, selfishness ruled and exploitation of the resources began which has resulted in the careless cutting down of forests and the thoughtlessly squandering of the richness of the soil (See Table 4.4 above).



Concerning the original state of the earth the Guide teaches the members that God provided the most healthful surrounding for Adam and Eve. It is observed that God did not plan a life of idleness for Adam and Eve but that they were to work in the Garden and care for it. In this way they would find satisfaction and enjoyment. They would learn more of God in what has come to be known in the SDA Church as God's second Book-nature.

On the current state of the environment, the Sabbath School Study guide notes that exploitation, decay, loss of substance, and death has been present with all peoples—so much so that people may take them for granted as part of the cycle of life. It notes that the pollution of air and water, the contamination of soil, the presence of new and fearful disease agents, all point to the aging of the earth and the escalating need for renewal.

The Guide is very explicit on the responsibility of each Church member for the environment. It is noted that no member is free of responsibility to God and his created work. "Not only does the earth belong to God, but it serves as his signature across the galaxies" (Sesei, 2010:30). It emphasizes on the responsibility of members for environment by maintaining that to whatever degree all Adventist members can, and should seek to reduce the level of carbon emissions, which is increasingly becoming a world-wide concern due to the potentially dangerous impact to the environment caused by carbon emissions. It further stresses the fact that Adventists need to be good stewards of the earth, by seeking to take care of the environment, by not hoarding natural resources for themselves, by being willing to share with others out of their own abundance.

The content provided above is just an example of practical efforts undertaken by the SDA Church administration to sensitize the members to participate in environmental conservation. The findings presented above gives the Biblical view of the environment and man's responsibility for it. It highlights the origins of environmental degradation and what the role of the Church members is in the light of the environmental crisis. It simply indicates that the SDA Church overall administration has a clear policy for environmental conservation which it would like all its members to understand and put into practice. Indeed, apart from the Sabbath school Bible studies, other teachings on environment are offered informally alongside other Church activities as noted in the in other sections of this study.



#### **4.5 SDA Church's Application of Biblical Teachings on Environmental Conservation in Kisii Central District**

This section is a response to the main research question which was stated thus: "How is the SDA Church relating Biblical teachings to environmental conservation in the Kisii Central District?" The responses to this question are presented below and are then followed by the relevant discussions.

As shown above, the SDA Church is engaging in offering environmental conservation education to her members. The emphasis given the subject of environmental conservation is equivalent to the one the Church lays on other important teachings of the Church like stewardship, tithing and even Sabbath keeping (Sesei, 2010). A review of the Church's literature indicates that all members of the Church are expected to be responsible stewards for God's world, should have occasions when they reflect about God's handwork and should make effort to keep their environment 'green' and also participate in cleaning up their surrounding communities. These are the expectations of the Church on all her members and one can admit that they are very critical in the fight against environmental degradation if implemented by adherents. Equally, it has been observed above that the Church encourages her members to make use of herbs for treatment of common illness. Members are also encouraged to set aside portions of their land to conserve the herbs and the practice is said to have a Biblical foundation (Leviticus 14:6-7; 49-51). By doing this it can be appreciated that the Church is indeed participating in conserving the environment since this is an element of conservation which can be a beginning towards a wider strategy of well conserved and protected environments. Equally, by engaging in planting of trees and conservation of medicinal herbs, the Church is fulfilling its Biblical mandate of taking care of the earth's resources entrusted to humanity at creation "then the Lord took the man and put him in the garden of Eden to tend it and keep it" (NKJV: Genesis 2:15).

Another aspect that displays that the Church has a passion for environmental conservation in the light of Biblical teachings is the fact that the SDA Church General Conference has issued an official statement clarifying its position on conservation of the environment (General Conference of SDA-, 2005). The statement puts clear the SDA Church position on issues touching on environment and indicates that the Church advocates a simple, wholesome lifestyle, where people do not go the excesses of uncontrolled consumerism, goods-getting,



and production of waste. It calls for respect of creation, restraint in the use of the world's resources and reaffirmation of the dignity of created life. Although this statement has been issued by the overall administration of the Church, it is translated to the views and position of the Church on environmental conservation even at the local level. The statement clarifies the expectations and interests of the Church in environmental issues in the region under study. Whether or not the adherents are doing this in the study area is another issue altogether. At this point there is need to appreciate the position taken by the Church based on this statement which is very positive towards conservation of the environment. The statement is also in line with the Biblical teaching concerning humanity and stewardship of the earth.

Another aspect that demonstrates how the Church is applying Biblical teachings to environmental conservation is the fact that the Church is sponsoring projects geared towards environmental conservation in the District (Pastor Ezekiel Omanwa; O.I, 6/4/11). This work is done by the Adventist Relief Agency (ADRA), an SDA sponsored Non-Governmental Organization based in the study area. The NGO has brought together various stakeholders in the sector of environment like local administrators, women and youth groups to assess the state of environment in the region. The organization also provides funds for tree planting and sponsors experts who are teaching the local people on the necessity of preserving the local environment. The organization also organizes cleaning up activities in the market areas especially in Kisii town. The Church's engagement with such activities indicates its concern for the environment and hence its adherence to the Biblical teachings on care and protection of the earth.

The Church programmes such as those on health and temperance and teaching offered in the Pathfinder Clubs offer a solid foundation for engaging the members in environmental conservation. This programmes aimed at educating the members on matters of environment create an environmental awareness that is invaluable with great benefits to the members and the environment. The Church's teachings on environmental hygiene are very significant towards environmental conservation. Emphasis is put on environmental cleanliness of all forms. The Church devotes a lot of time on programmes related to environmental cleanliness. Proper use of toilets is encouraged by the Church which is a practical measure necessary when trying to conserve the environment. All these activities add up a Biblical environmental conservation strategy. Through the teachings offered in the Church, the adherents are able to live a unique lifestyle which is distinctive from the rest of the people in the local area



especially in terms of maintenance of hygiene in their homes. According to Onyancha (1989), this lifestyle which is quite relevant to environmental conservation earned them the name 'Abasomi' (knowledgeable people) during the early days of Adventism in Gusiiland. Hence the impact of Adventism in the region has been an on-going influence among the Abagusii people to abandon lifestyles harmful to the environment towards practices and attitudes friendly to environmental conservation. The Adventist lifestyle, whether it is about its teaching on environmental hygiene or personal health, vegetarian diet or Sabbath-keeping, has been critical in creating change of attitude among the traditional Kisii people toward environment. Emphasis made by the Church on these key teachings has led to numerous yet unexpected benefits on environmental conservation.

In conclusion, it is observed here that the Church has made significant contribution in preparing the local people to be receptive to ideas and information on environmental conservation. Indeed, as observed from the study findings presented above, the Church has a huge potential for involvement in environmental conservation.

The next section presents more study findings on the evaluation of the Church on how it is utilizing this potential to enhance environmental conservation.

#### **4.6 Evaluation of the Contribution of Selected SDA Church Aspects on Environmental Conservation in Kisii Central District**

This section presents more study findings that are relevant to understanding the extent to which the Church is applying Biblical teachings to environmental conservation in the study area, which is part of the second objective of this study. The purpose of the data presented here was to rate the Church in terms of how it applies its teachings and beliefs to the real problem of environmental degradation. The respondents were presented with statements about their Church and then the study sought to know from them if such teachings are employed to counter further environmental degradation. The aspects that were selected for purposes of appraisal are shown in the Table below.



**Table 4.5:** Aspects that were selected for purposes of appraisal of the SDA Church's contribution to environmental conservation in Kisii Central District

<b>Selected SDA Church Aspects for Appraisal</b>
1. Belief in Sabbath Keeping
2. Teaching on Health and Hygiene
3. Involvement of SDA Church Leaders in Environmental Conservation
4. Familiarity of SDA Adherents with Biblical Teachings on Environmental conservation
5. Adherence of the Church followers to Teachings on Environment

#### **4.6.1 Application of the Teaching about Sabbath Keeping on Environmental Conservation**

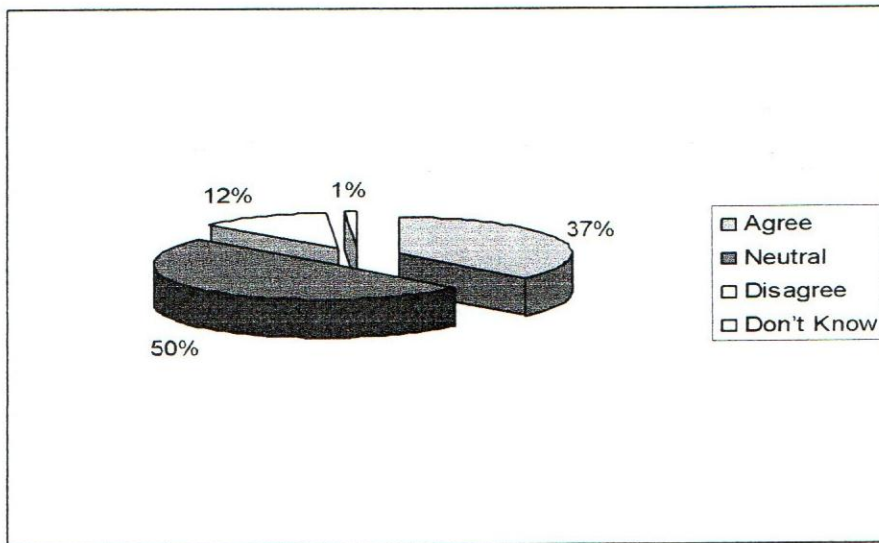
It has already been observed from the previous sections of this study that Sabbath observance in the Old Testament times had a lot of significance to creation, environment and environmental conservation. It has also been noted that seventh-day Sabbath observance is the distinguishing factor between the SDA Church and the other protestant Churches. This study sought to inquire the extent to which the Church's teaching concerning Sabbath keeping has been used to enhance environmental conservation in the region. The relevant research question for this purpose was stated thus: Is Sabbath keeping as a distinguishing aspect of the SDA Church being used to urge the members to participate, in environmental conservation in the region? The inquiry recorded the following responses based on the 4-point Likert Scale.

**Table 4.6:** Impact of Belief in Sabbath Keeping on Environmental Conservation

<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Don't Know</b>
37%	50%	12%	1%

Table 4.6 above shows that 50% of the respondents rated the Church to have used the opportunity created by Sabbath observance averagely to encourage its members to participate in environmental observation. 37% of the respondents rated the Church utilizations of the

opportunity to be above average and 12% of them disagreed with the statement altogether. The chart below illustrates the results.



**Figure 4.3:** Impact of belief in Sabbath Keeping on Environmental Conservation

These results suggest that the Church has not maximally utilized the opportunity created by Sabbath observance to influence its followers to participate in environmental conservation. It also suggests that although all its adherents observe Sabbath keeping, they may not understand its relationship to environmental conservation. This is implied by the fact that 12% of all the respondents totally disagreed that the Church is using this potential. Put together with those who thought the Church has only utilized its potential averagely, one can get to understand why this view is true. Hence, there is a need for the Church to illuminate more to her adherents the relationship that is between Sabbath keeping and the necessity of, and responsibility that goes with Sabbath keeping.

#### **4.6.2 Application of the SDA Church Teaching on Health and Hygiene on Environmental Conservation**

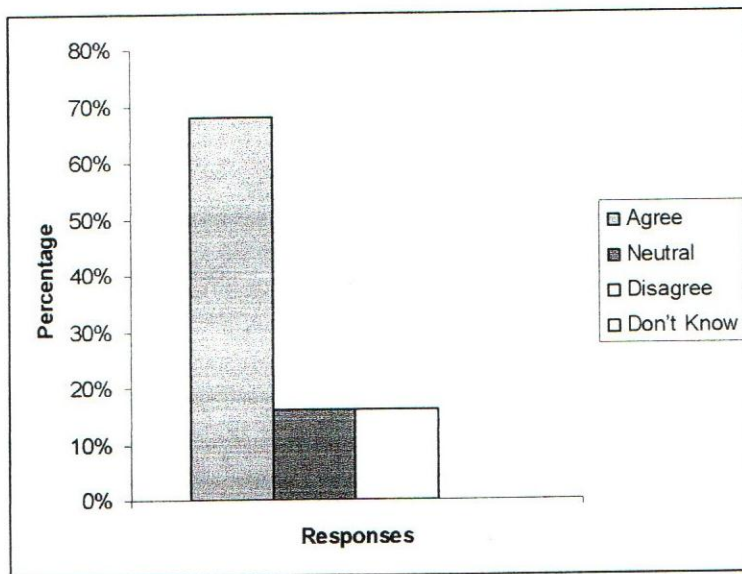
Details presented in previous sections of this study indicate that the Church has a well-founded health and hygiene policy. Abundant teachings are given on the importance of keeping ones surroundings clean as a recipe for staying healthy (White, 2007:219). The study inquired from the respondents how the Church is using this advantage to encourage her adherents to increase their participations in environmental conservation. The relevant research question was stated thus: Is the Church using its teaching on personal health and



hygiene to encourage members her members to more actively participate in environmental conservation? The results from the respondents are shown in the Table below:

**Table 4.7:** Impact of the Church’s teachings on personal health and hygiene on environmental conservation

Agree	Neutral	Disagree	Don’t Know
68%	16%	16%	0%



**Figure 4.4:** Impact of the Church’s teachings on personal health and hygiene on environmental conservation

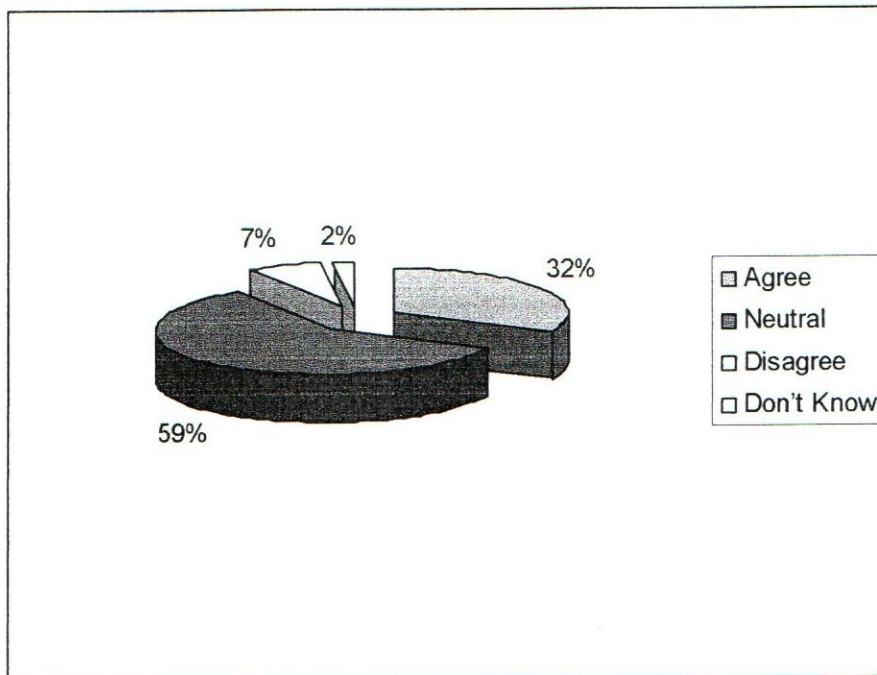
The findings indicate that up to 68% of the respondents admitted that the SDA Church is utilizing the advantage created by her teachings related to environmental hygiene and personal health to enhance environmental conservation. The findings further suggest that this is truly where the Church’s potential for environmental conservation lies. Hence with more focused efforts the Church’s teaching on healthy and environmental hygiene can be a greater boon towards enhanced environmental conservation.

#### 4.6.3 Involvement of Church Leadership in Environmental Conservation

It has already been noted that the SDA Church has substantial literature relevant to environmental conservation. The study wished to establish if the Church leaders in the study area employ the Biblical teachings to encourage the adherents to participate in environmental

conservation. Consequently the respondents were requested to rate the Church leaders on the statement: Do SDA Church leaders in your area emphasize environmental conservation on the basis of the Biblical teachings?

The observations recorded from respondents on the statement based on the Likert Scale were as shown in the Figure below.



**Figure 4.5:** SDA Church leaders' application of Biblical teachings on environment to environmental conservation

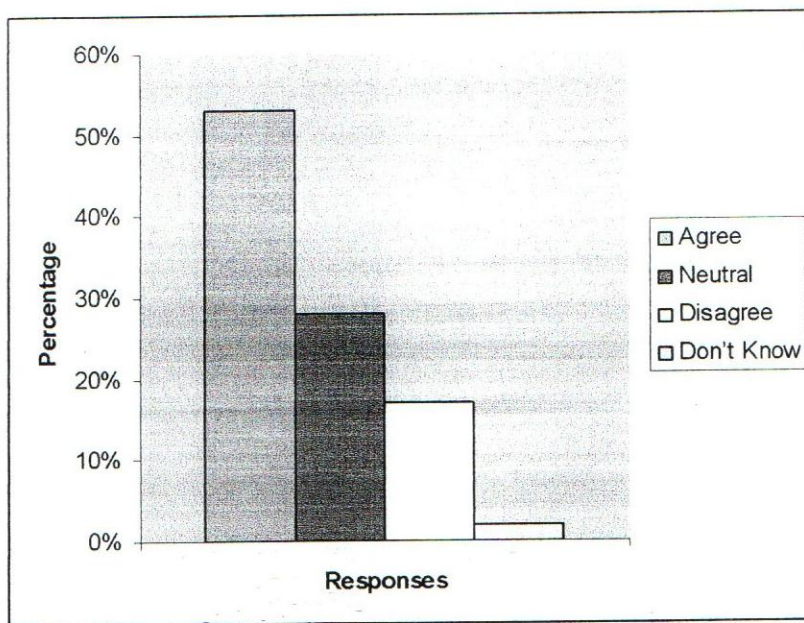
The findings in the figure above indicate that the leaders have only done average work in utilizing the potential for environmental conservation created by the Bible and the Church's teachings to enhance faster environmental conservation, based on the fact 59% of the respondents reckoned so. Although a significant 32% of the respondents admitted that the leaders are utilizing this potential, the findings indicate that more is still expected from them. There is need for the Church leaders to make practical application of Biblical teachings to real environmental challenges in the locality.



#### 4.6.4 SDA Church Adherents' Familiarity with Biblical Teachings on Environmental Conservation

Besides seeking to understand the role of the Church leaders in environmental conservation, the study sought to establish the familiarity of the SDA Church adherents in the study area with the Biblical teachings related to environmental conservation. The respondents were requested to respond to the statement: Are members of your Church conversant with the Biblical teachings on the necessity of preserving and protecting the environment?

The Figure below shows the results of the responses recorded from one hundred SDA adherents:



**Figure 4.6:** SDA Church adherents' familiarity with Biblical teachings on environmental conservation

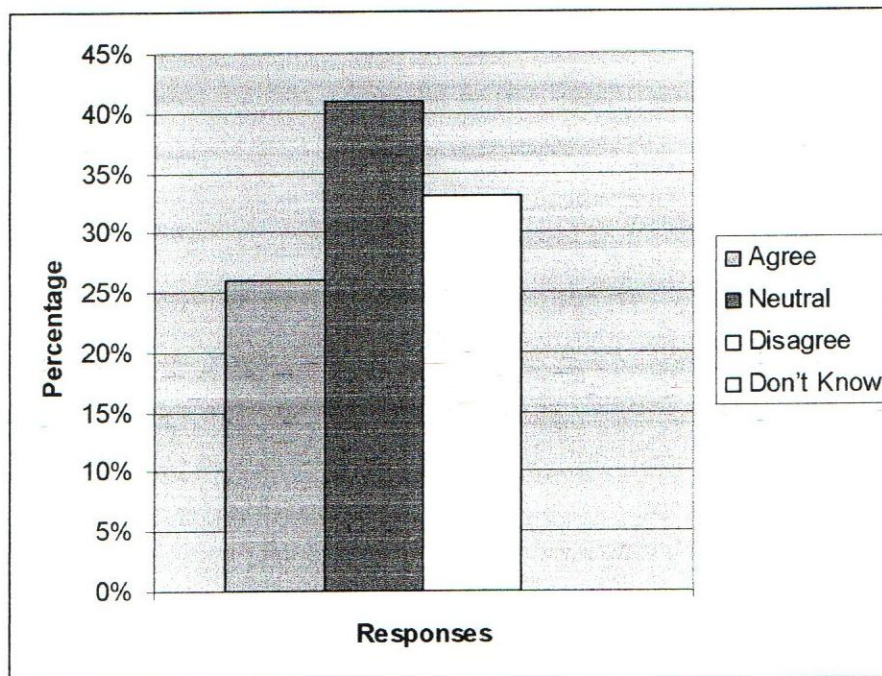
The findings indicate that most SDA adherents have an understanding of what the Bible teachings say about environmental conservation and the necessity of conserving it. Whereas 53% of the entire respondents confirmed that members are conversant with the Church's teaching, another 28% strengthened the view by agreeing that the members are on average conversant with the teaching. Data collected from oral interview shows that most members quoted the creations stories in Genesis 1 and 2 as core teachings offered in their Church and which are related to environmental conservation. It is important to also note that creations stories are familiar to almost every SDA adherent because they are closely tied to Sabbath keeping, a teaching so much cherished and frequently taught in the Church. Equally, it has

been observed earlier that the Church has a well-founded Bible-study programme which involves every Church adherent; children and adults alike, conducted every Saturday morning during Sabbath school and sometimes in the afternoons. These two aspects may account for the high levels of awareness of the Church's teachings on environmental conservation.

#### 4.6.5 SDA Church Members Adherence to Teachings on Environmental Conservation...

The findings in the sections above indicate that most members are aware of the Church's teachings on environmental conservation. Because of this, it was considered necessary to find out the extent to which they adhere to the teachings in their day to day life. It was necessary to establish if they are adhering to the teachings at individual level. Hence the respondents were requested to respond to the research questionnaire question: Do you adhere to the Church's teaching on environmental conservation?

The findings of the study were as illustrated in the figure below:-



**Figure 4.7:** SDA Church members' adherence to teachings on environmental conservation

The findings indicate that only 26% of the respondents admitted that they adhere to the Church's teachings on environmental conservation while 41% of the respondents rated their



adherence to the teachings as being average whereas 33% disagreed that they ever adhere to the teachings. Hence 74% the respondents either disagreed that they adhere to the teachings or only do so averagely.

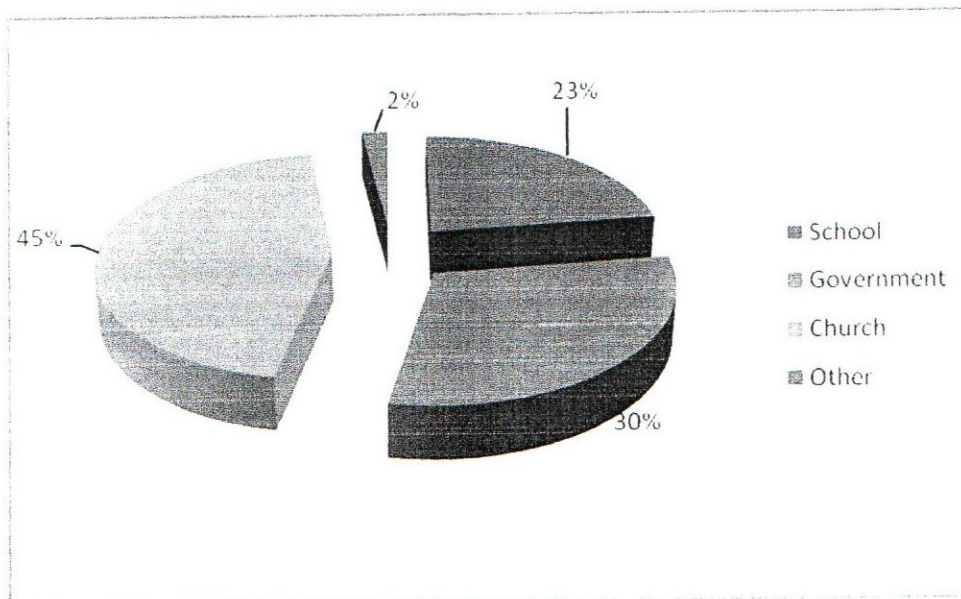
From the findings presented above it is discerned that some of the members adhere to the teachings of the Church while others do not. This prompted the study to inquire on the possible reasons behind the failure of some of the members to adhere to the Church's teachings on environmental conservation. Some of the teachings on environmental conservation neglected by the members and which were listed in the research instruments include the fact that some of members engage in excessive cutting and clearing of trees, they also ignore soil conservation methods, and also there is poor water conservation. Other practices that show negligence of the Church's teaching are that some members engage in improper garbage disposal, where some have planted blue gum trees adjacent to river banks, a fact believed to be responsible for the drying of most rivers in the region and equally some members do not adhere to the health teachings of the Church that are otherwise environment friendly.

#### **4.6.6.1 Reasons for Not Adhering to the Teachings on Environmental Conservation**

The study further sought to establish some of the reasons why the members are unable to adhere to teachings on environmental conservation. The reasons given by the respondents for the failure of some members to adhere to the teachings were summed up as follows. Kisii Central District is densely populated, a situation leading to shortage of land and this fact is responsible for over cultivation of the land. Some respondents noted that there is a lack of adequate programs to teach the members on the importance of environmental conservation. Greed for gain which drives some of the members to disregard the teaching was also given as one of the reasons. Poverty was also cited as another reason behind the failure of some of the members to adhere to the teaching. Other reasons given by the respondents were ignorance, lack of commitment on the side of Christians to live up to the teachings, and a lack of adequate focus by the Church on the subject of environmental conservation.

#### 4.6.6.2 Who Should Lead the Rest in Environmental Conservation?

The respondents were asked to give their views on who they thought should be held most responsible for educating the community on issues relating to environmental conservation. This was in response to the research questionnaire item given as follows: “In your opinion, whose duty should it be to educate people on environmental issues? The Table below shows the findings from the field.



**Figure 4.8:** Opinion on whose duty it is to educate the public on environmental issues

From the responses given above, it was clear that most respondents thought it is the Church's core duty to lead the others in conveying information on environmental conservation. The respondents observed that the Church should lead in environmental conservation because it reaches all categories of people in the society including young children and adults. The Church interacts with the various groups of society at different levels and situations. Some respondents noted that it's the Church that has Biblical mandate to relay the knowledge on environmental conservation.

Those who thought the school should be the best avenue to start giving environmental education said that most members of the society pass through school and therefore will receive this knowledge. Those who said the government should lead in environmental conservation argued that the government is the chief policy maker, while the others are



implementers. Hence it should lead in the process of relaying knowledge on conservation to the public.

#### **4.7 The Biblical Basis for SDA Church Environmentalism**

This section provides the theological basis for the Christians participation in environmental conservation. It draws on scriptural foundations for Church environmentalism and is complementary to findings on SDA Church teachings on environmental conservation presented in this Chapter. A highlight of what the Bible says about the role of man in caring for and protecting nature and the environment provided the framework for assessing role of the Church in conservation of the environment in the District. The Biblical teachings on environment and the SDA Church's environment friendly practices and teachings provide the basis for understanding and assessing the role the played by the Church in environmental conservation.

The Bible has a great deal to say about the environment and its conservation some 20 centuries since it was written. It is made clear that after creation God saw that everything He made was "good" (Gen. 1:20-25). In fact other sections of scripture emphasize that God saw that it was "very good" (Gen. 1:31). After the work of creation, God spells out clearly man's responsibility to the created world. He was made in God's image (Gen 1:27), and given authority over, and responsibility for, creation (Gen 1:26, 28). Man was to work in the Garden of Eden and care for it (Gen 2:15). He was to use but not abuse it. In today's language his use was to be sustainable. This creation mandate still applies today.

Generally speaking, Christianity assumes that nature is endowed with spiritual values and has a sacramental meaning (Parkin, 1989). It is also clear from scripture that humanity as a part of nature has a moral obligation to preserve nature. It is therefore expected that religious groups that embody this ethic should be developed, along with a sacramental view of nature, and these beliefs can inform action to create an ecologically sustainable society (Parkin, 1989). The study of the SDA Church's role in environmental conservation is therefore based on the premise that Christianity forms a master narrative within modern religious movements from where religious environmentalism may start.

The most outstanding argument for religious environmentalism is what has come to be known as environmental stewardship. Environmental stewardship focuses on a Jewish and



Christian interpretation of the Biblical mandate to care for God's creation. It sees God as a transcendent being, and, according to an early statement "Christians who should understand the creation principle, have reasons for respecting nature, and when they do, it results in benefits to man. The basis for this point of view is that nature is to be treated with respect because God made it (Schwarz, 1979:76).

#### **4.8 A Critical Analysis of the SDA Church's Apathetic Attitude to Environmental Conservation**

The Church's low participation in environmental conservation in the study area could possibly be attributed to the fact that historically its teachings have always centred on the preparation of its adherents for a soon coming of the end of the world. True to say, The SDA Church formed out of the movement known today as the Millerites. According to these early believers of the Church, the world was predicted to end on October 22, 1844 with the Second Coming of Christ (Schwarz, 1979). On that day many of the believers were up late into the night watching, waiting for Christ to return but found themselves bitterly disappointed when both sunset and midnight passed with their expectations unfulfilled. This event later became known as the Great Disappointment. After this "Great Disappointment," one "little flock" still insisted the date of their original predictions had been correct. They decided the event marked by 1844 was not the Second Coming, but the entrance of Christ into the Holy of Holies in the Heavenly Sanctuary. A remnant of those believers continued with the message and formed the SDA Church. The SDA Church is proclaiming this message in the time of the end leading to the end of time. The impact of this view has been the creation of an attitude of escapism from real issues pertaining to this world in anticipation of the world to come. 'And I heard another voice from heaven, saying, Come out of her, my people, that ye be not partakers of her sins, and that ye receive not of her plagues.'(KJV: Revelation 18:4)

This detachment was clearly manifested during the 1844 disappointment where those who had anticipated the end time sold or gave up all their properties. Although the Church is no longer engaging in predicting the time the end of the world will occur, yet overtones of this original teaching are clear in a now very popular teaching of the Church commonly referred to "The three angels message" based on the book of Revelation Chapter 14:6, 7. " And I saw another angel fly in the midst of heaven, having the everlasting gospel to preach unto them that dwell on the earth, and to every nation, and kindred, and tongue, and people, saying with



a loud voice, Fear God, and give glory to him; for the hour of his judgment is come..”  
(NKJV)

The emphasis of the Church on this teaching could be partly the reason why it has not given significant focus and practically engaged in conservation of the environment since earth is expected to soon pass away and a new earth and heaven to come “And I saw a new heaven and a new earth: for the first heaven and the first earth were passed away; and there was no more sea” (KJV: Revelation 21:1). If then this be the case, there is need for change of attitude by the Church since it is clear from the Great Disappointment that it is not possible to determine when the second coming of Jesus will take place. Hence they should start to engage actively in environmental conservation in line with the teachings of the Bible.

#### **4.9 Conclusion**

In conclusion, it can be said that although the SDA Church has not been aggressive in taking part in environmental conservation projects in the study area, the findings indicate that most members of the Church are convinced that they have a duty to play in enlightening the community on issues of environmental conservation, at least in part if not wholly (See Figure 8). Hence there is a need for a revised policy in the Church on how it should respond to environmental challenges confronting the study area.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter provides general observations, implications and summary of the research findings of this study based on the research objectives. Suggestions on the relevant contributions the Church can make toward environmental conservation efforts in Kisii Central District, which was the task of the third objective of the study, are also presented. The chapter also makes recommendations for further study.

#### 5.2 Summary of Research Findings

Regarding the first objective of the study, it is observed that the SDA Church's teachings provide an avenue in which the ideals and aspirations of the ecological quest may find realization. The kind of attachment to the environment exhibited by the SDA Church has a crucial role to play in the search for more sustainable use of the natural environment.

The study shows that the SDA Church is a potentially resource conserving community based on its teachings. For instance teachings on Sabbath keeping, vegetarian diet, stewardship, health and hygiene and also use of water have made a significant contribution in preparing the local people to be receptive to ideas and information on environmental conservation. Equally, teachings on the use of herbs and on nature are very significant to environmental conservation. It may further be summed up that these beliefs and practices if appealed to may provide a context in which people in the study area may recover both a sense of spiritual connection to the earth and also to its creator. This is clearly the message that is also conveyed by the Cosmic Christ Model which informed this study.

On the second objective it is noted that although the Church is engaged in some practices that can be tapped to enhance sustainable utilization of the environment, much still needs to be done. Of course, as noted from the previous Chapter, the Church is engaged in several practical activities such tree planting, garbage collection and also the activities of ADRA in the study area, all which imply that it is applying Biblical teachings to environmental conservation. However it is also true to comment that the basic teachings of the Church that



have a significant bearing on environmental conservation are underutilized. For instance, the study findings indicate that the Church has not correlated well the relationship that there is between Sabbath observance and environmental conservation. The findings also show that although the members are quite familiar with the Church's teachings related to environmental conservation, most of them do not adhere to them. Equally, it can be noted that the Church's leadership is not prioritizing environmental conservation issues alongside other Church projects. It may be observed, however, that the Church's teaching on health and hygiene can provide the point to start from when planning to engage the adherents in active participation in environmental conservation.

In conclusion, in terms of application of the Church's teachings to environmental conservation, the findings indicate that this potential is underutilized.

### **5.3 Recommendation on How the Church Can Improve Its Contribution to Environmental Conservation**

This section presents the field findings on how the Church can improve its contribution to efforts geared towards conservation of the environment. It gives the field findings for objective three which was to make recommendations on the relevant contribution the Church could make toward environmental conservation efforts in Kisii Central District. The research question that was evoked by this objective was: How best can the SDA Church contribute positively to environmental conservation efforts in the study area? A number of proposals were given as discussed below:-

- i. The Church leadership should prepare handouts with an orderly content on environmental education which can be used by Church educators to teach members on how they can contribute positively towards environmental conservation. It was noted that currently the Church does not have these documents. Alongside these guidelines, the Church should also organize seminars and workshops where its followers and members of the public can be trained on how to participate in environmental conservation.
- ii. The Church leadership should prepare a programme of Church activities that avails time for revisiting environmental issues more frequently than it is currently so as to enable it cope with the rising rates of environmental degradation. The Church should



- allocate part of its funds to environmental conservation. Such funds can be used to start tree nurseries in the Church precincts. The funds can also be used to facilitate pastors to start simple projects on conservation and they can also be used to prepare posters for sensitizing the public on the dangers posed by environmental degradation.
- iii. There is a need to integrate environmental education in the training courses offered to pastors so as to ensure that they are properly equipped to teach their congregations on issues touching on environmental conservation.
  - iv. Pastors should preach change of attitude of members towards environmental issues. More environmental experts should be invited to come to Church meetings to sensitize members on the importance and urgency of conserving the environment. Mission outreaches should not only focus on gospel preaching but also be occasions to view the state of the environment and also be a time to plan on how to address any emerging environmental issues especially in areas that are clearly affected by environmental degradation. The Church should have an Environmental Day or Sabbath when all attention of the members is focused on the environment. In addition, the Church can set up demonstration projects where members can freely learn on how to participate in conservation of the environment. Members can start to participate in collecting non-biodegradable materials like plastics and take them for recycling or dispose them in the right places. They should be encouraged to start planting trees in areas already deforested and should also remove blue gum trees planted adjacent to river banks so as to save the springs and rivers in the region from losing water. Equally, people who stay near river banks should be encouraged to engage in alternative economic activities that are friendly to water conservation, such as starting fish ponds instead of planting the blue gums. The ponds will collect and conserve the water that would otherwise have been absorbed by trees. This can be done alongside teaching these people alternative trees that do not consume a lot of water; that is those that preserve the water. Water towers should be protected by encouraging the members to plant indigenous trees.
  - v. The Church should emphasize to members the need for proper disposal of garbage and also on proper use and effects of application of chemicals in agriculture. The members should be enlightened on the causes of soil erosion and air pollution and means of curbing them. Most of them are not informed and if they were trained well, they could be very co-operative. The members should be encouraged to participate in



tree planting days and even in cleaning garbage in market areas. Alongside this, songs with environmental messages can be composed and sang during worship services to encourage listeners to participate in environmental issues.

#### **5.4 Recommendation for Further Study**

From the above observations during the study, the following recommendations have been made for further study and research.

The current study mainly focused on the role the SDA Church is playing in environmental conservation in Kisii Central District. Another Church that has a large following in the District is the Catholic Church. Further studies may be undertaken in the Catholic Church on the issue of environmental conservation in the region. Comparison can be done on the role the two Churches are playing and this may be a way to ensure a larger proportion of the population engages in environmental conservation in the region.

Secondly, this study has been done within the perspective of the Christian faith and environment. Further studies may inquire on the attributes of Abagusii traditional religion and culture that are environment friendly and their potential for enhancing environmental conservation.

#### **5.5 Conclusion**

The SDA Church teachings and practices related to environmental conservation presented in this study were the basis for the investigation of the role the Church is playing in environmental conservation in Kisii Central District. These teachings are the foundation for SDA Church's positive attitude towards environmental conservation.

##### **5.5.1 Theoretical Conclusion**

Theoretically, the teachings on Nature (Creation), Sabbath keeping, stewardship, health and hygiene, herbal healing and vegetarian diet which must come from unpolluted environment, all espoused by the SDA Church equip the Church's adherents with an environment friendly attitude. This is the same virtue embraced by the Cosmic Christ Model which informed this

study. The model discourages domination and overexploitation of the earth and also man's misuse of the earth's resources. It encourages liberation of nature from man's oppressive practices. Consequently, the SDA Church teachings make the Church quite relevant to the subject of environmental conservation. Given that the Church is widely spread in Kisii Central District, a region which has started to experience rapid environmental degradation, the Church's teachings related to the environment offer a solid foundation for networking the local communities with the other stakeholders who are interested in conserving the environment.

### **5.5.2 Empirical Conclusion**

Empirically, however, the opposite is what is happening. Although the SDA Church has this huge and attractive potential for involvement in environmental conservation, it is noteworthy that the potential has not been meaningfully used. The Church does not have a clearly defined strategy for engaging its members in environmental conservation in the study area. The Church's low profile in utilizing its potential for environmental conservation is akin to the parable in which Jesus saw a very beautiful and green fig tree that created an impression that He could get fruits from the tree. However when He moved closer to the tree He was disappointed to find the tree did not have a single fruit "And seeing at a distance a fig tree having leaves, He went to see whether He would find any fruit on it. And when He came to it, He found none but leaves..." (NKJV; Mark 11:13, 14). Consequently, there is need for the Church to set up a much more clear policy on environmental conservation since the study findings indicate the Church has not fully utilized its potential to enhance environmental conservation in the study area.



## REFERENCES

- Amayo, G. A. (1973). *History of Adventist Christian Education in Kenya, 1909-1963*. Unpublished PhD Thesis, London University.
- Balch, W. (2000). *Nutritional Healing*. New York: Oxford University Press.
- Cohen, R. (2004). *God's Nutritionist: Pearls of Wisdom from Ellen G White*. New York: Square One Publishers.
- Cooper, T. (1990). *Green Christianity*. London: Spire, Hodder and Stoughton
- Dey, I. (1993). *Qualitative Data Analysis: A User Friendly Guide for Social Scientists*. New York: Routledge.
- Dobson, A. (1991). *The Green Reader*. London: Good Collection of Key Writings.
- (2005). *Fairness and Futurity: Essays on Environmental Sustainability and Social Justice*. New York: Oxford University Press.
- Dysinger, W. (1997). *Heaven's Lifestyle Today*. Silver Spring: Review and Herald Graphics.
- Gatundu, C. (2003). *Policy and Legislative Framework for Community Based Natural Resource Management in Kenya*. Nairobi: Forest Action Network.
- General Board of American Baptist Churches (1989). "Creation and the Covenant of Caring"  
In : Gottlieb, R. (ed.) 2004. *This Sacred Earth: Religion, Nature, Environment*. New York: Routledge. p. 286
- Gecage, M.G. (1994). "Ecology and Creative Stewardship, Towards a New story of the Earth" A Paper presented to the Ecumenical Association of 3<sup>rd</sup> World Theologians, Nairobi.
- General Conference of SDA (2005). *S.D.A. Believe*. Washington DC: Pacific Press Publishing Association.

- Getui, M.N.S (1987). "The Historical Establishment and Activities of the SDA Church among Abagusii of Western Kenya", Unpublished M.A. Thesis, University of Nairobi
- Getui, M.N.S and Obeng, M. (eds.) (1999). *Theology of Reconstruction: Exploratory Essay*. Nairobi: Action Publishers.
- Gottlieb, R. (2003). *A Greener Faith: Religious Environmentalism and Our Planet's Future*. New York: Oxford University Press.
- (2004). *This Sacred Earth: Religion, Nature, Environment*. New York: Routledge.
- (2006). *The Oxford Handbook of Religion and Ecology*. New York: Oxford University Press.
- Greenpeace Report (2006). *Eating Up the Amazon*. [www.brazilink.org/tiki-download\\_file.php?fileId=194](http://www.brazilink.org/tiki-download_file.php?fileId=194), accessed on 20<sup>th</sup> April, 2010.
- Hanningan, J. (1995). *Environmental Sociology*. New York: Routledge.
- Hopkins, G. (1953). *Poems Prose*. London: Pen
- Kay, M. (2002). *Loving Nature*. London: Routledge.
- Punch, K. (2004). *Introduction to Social Research: Quantitative and Qualitative Approaches*. London: Sage Publications.
- Kerlinger, F.N (1983). *Foundations of Behavioral Research*. New Delhi: Holt, Rinehart and Winnstone, Inc.
- Koul, K. (1984). *Methodology of Educational Research*. New Delhi: Vikas Publishing House PVT Limited.
- Lerner, G. (1986). *The Creation of Patriarchy*. New York: Oxford University
- Mathooko J.M, Mathooko, F.M and Mathooko, P.M (2007) *Academic Proposal Writing*. Nakuru: Amu Press.



- Mbiti J, S. (1969). *African Religions and Philosophy*. London: Heinemann.
- McFague, S. (1993). "The Body of God: An Ecological Theology" In: Gottlieb, R (2004). *This Sacred Earth: Religion, Nature, and Environment*, New York: Routledge. p. 286
- Merchant, C. (1998). *The Death of Nature: Women, Ecology and the Scientific Revolution*. San Francisco: Harper Collins.
- Mironga, J. (2005). "Effect of Farming Practices on Wetlands of Kisii District, Kenya." [Njorowww.ecology.kee.hu](http://Njorowww.ecology.kee.hu) ,accessed on 20th April, 2010.
- Moltman, J. (1999). *God for a Secular Society*. Minneapolis: Fortress Press.
- Mugenda O. M and Mugenda, A. (1999) *Research Methods*. Nairobi: Acts Press.
- Murray, B. (2007). *Social Ecology and Communalism*. Oakland: Press.
- Nisbet, E.G. (1984). *Leaving Eden*. New York: Harper and Row Publishers.
- Njenga, M. J. (1981). *Project on Earth and Development; A report of GOK/UNEP/UNDP*. Nairobi: Government Printer.
- Okemwa, P. (1999). "Women in the Seventh Day Adventist Church" In Getui, M. and Obeng, M. (eds.) *Theology of Reconstruction: Exploratory Essays*, Nairobi: Action Publishers.p 120
- Ongon'ga, J. (1999). "Towards an African Environmental Theology" In: Getui, M. and Obeng, M. (eds.) *Theology of Reconstruction: Exploratory Essays*, Nairobi: Action Publishers.p 50
- Onyancha, B. K. (1989). "African Spiritual Response to Western Christianity with Particular Reference to Abagusii and the Seventh Day Adventist Church in Ogembo Division, Kisii" M.A Thesis, University of Nairobi
- Orodho, J. A. (2005). *Techniques of Writing Research Proposals and Reports in Education and Social Sciences*. Nairobi: Kanezia HP Enterprises.

- Parkin, S. (1989). *Green Parties: An International Guide*. London: Heretic Comprehensive
- Passmore, J. (1980). *Man's Responsibility for Nature*. London: Duckworth.
- Republic of Kenya (2008). *Atlas of Our Changing Environment Report*. Nairobi: Government of Kenya Printer.
- (1981). *Environmental Assessment Report*. Nairobi: National Environment Secretariat.
- (2008). *Kisii Central District Development Plan 2002-2008*. Nairobi: Government of Kenya Printer.
- Robin, K. (1985). *Christianity: A World Faith*. London: Lion Publishing Plc.
- Ruether, R. (1992). *Gaia and God: An Ecofeminist Theology of the Earth Healing*. San Francisco: Harper.
- Santmire, P. (1985). *The Travail of Nature: The Ambiguous Ecological Promise of Christian Theology*. Philadelphia: Fortress Press.
- Sidney, S. (1997). *Health and Healing and Nature*. Albany: State University of New York Press.
- Sisei, S. ed. (2010). *Health and Healing*. New York: Africa Herald Publishing House <http://ssnet.org/qrtrly/eng/10b/less05.html> accessed on 14th May, 2010.
- Schwarz, R. W. (1979). *Light Bearers to the Remnant*. Ontario: Pacific Press Publishing Association
- Stuart, A. (2005), *Conservation Theology for Conservation Biologist.*, Oxford: Blackwell Publishers.
- Tu, W. (1985). *Confucian Thought; Selfhood as Creative Transformation*. Albany: State University of New York Press.



UNEP (1993). *United Nations Environmental Programme-Environmental Data Report 1993-94*. Oxford: Blackwell Publishers.

----- (1991). *United Nations Environmental Data Report 1991-92*. Oxford: Basil Blackwell.

UNO(2006). *United Nations Report on Environmental Hazards of the Meat Industry*. [www.fao.org/ag/magazine/0612sp1.htm](http://www.fao.org/ag/magazine/0612sp1.htm) , accessed on 20th April 2010.

Walter, M. (1963). *The Truth about Seventh Day Adventist*. New York: Zondevan

White, E.(1988). *Steps to Christ*. Altamont: Harvestime Books.

----- (1999). *Prophet and Patriarch*. Altamont: Harvestime Books

----- (2007). *Ministry of Healing*. Altamont: Harvestime Books.

White, L. (1967). *The Historical Roots of Our Ecological Crisis*. New York: Routledge

Lary, R. (1998). *Earth Community, Earth Ethics*. New York: MaryKnollOrbis.

WHO (1992). *Our Planet, Our Health: Report of WHO Commission on Health and Environment*. Geneva: World Health Organization.

## APPENDICES

### Appendix I: Questionnaire

Please answer the questions below. The information will be kept confidential and will only be used for academic purposes.

#### Part One: Respondent Background

- 1) Name of Respondent (Optional).....
- 2) Gender                      Male                       Female
- 3) Age..... Marital status: Single                       Married.                       Other   
(Specify).....
- 4) Highest level of Education (Please tick whichever is appropriate).
  - a.                      Primary
  - b. Secondary
  - c. Post-secondary
  - d. University
  - e. Other (Specify).....
- 5) Occupation
  - a) Unemployed
  - b) Housewife
  - c) Civil servant
  - d) Self-employed
  - e) Other (specify).....
- 6) Religious affiliation
  - a) SDA
  - c) Catholic
  - d) Other (Specify).....



**Part Two. Questionnaire for Church Leaders**

1) How many years have you worked as an SDA Church leader? (Please tick whichever is appropriate).

i) 1-3 years

ii) 4-6 years

iii) Over 6 years

2) What do you understand by the term environment?

.....

3) (a) What do you understand by environmental degradation?.....

.....

(b) What are the main environmental problems common in your region?

i) .....

ii) .....

iii) .....

4) According to you, what is causing the degradation of resources such as water, forests and soil in farmland?

i) .....

ii) .....

iii) .....

5) How do members of your Church benefit from environmental resources? Give your answer in order of preference.

i) .....

ii) .....

iii) .....

6) Are there any existing programmes within the SDA Church that aim at helping members to benefit from environmental resources without exhausting them? (Please tick whichever is appropriate).

a) Yes  No

b) If yes, state how much time is allocated for them

- i) Once a week
- ii) Once a month
- iii) Once a year
- iv) Other (Specify).....

c) Give some of the content of what's covered. Give your answer in order of preference.

- i) .....
- ii) .....
- iii) .....

d) If there are no programs, suggest reasons for their absence. (Please tick your choice).

- i) The Church does not value environment conservation
- ii) The Church considers evangelization more important than environmental issues.
- iii) The Church administration does not allocate time for such programs.
- iv) Environmental conservation is not part of the Church's responsibilities.
- v) Others (Specify).....

7) Who teaches the members of your Church on how to relate with their immediate environment?

- i) .....
- ii) .....
- iii) .....



8) Please give some of the Christian teachings on managing and conserving the environmental resources offered in your Church.

- i) .....
- ii) .....
- iii) .....

9) Please list the teachings of the Bible on the uses of plants that you know.

- i) .....
- ii) .....
- iii) .....

10) State the Biblical teachings on the importance of preserving the environment that you know

- i) .....
- ii) .....
- iii) .....

11) State briefly what you know about your Church's teaching on the relationship between humans and other creatures.

- i) .....
- ii) .....
- iii) .....

12) Do your members adhere to the teachings about environmental care in their daily life?  
(Please tick whichever is appropriate).

- i) Yes       ii) No

13) If no, give examples of some of the teachings neglected by the members.

- i) .....
- ii) .....
- iii) .....

14) In your opinion what makes it difficult for the members to strictly follow the Christian teachings on environmental conservation and protection?

- i) .....
- ii) .....
- iii) .....

15) Suggest ways in which the Church institutions could be more effective in enhancing environmental awareness?

- i) .....
- ii) .....
- iii) .....

16) In your opinion, whose duty should it be to educate people on environmental issues?

- i) Church.....
- ii) Schools.....
- iii) Government.....
- iv) Other (Specify).....

17) Give reasons for your choice.....

18) What should be done to awaken pastors to start prioritizing environmental issues in their Churches?

- i) .....
- ii) .....
- iii) .....

19) How could mission outreaches and other Church departments integrate care of creation in their normal activities?

- i) .....
- ii) .....
- iii) .....



20) Suggest activities that your region can be involved in so as to reduce the impact of environmental degradation.

- i) .....
- ii) .....
- iii) .....

**Questionnaire for Assessing Church's contribution to Environmental Conservation by Church Leaders**

Please answer the following questions about the SDA Church as objectively as possible. Tick any of the options Agree, Neutral, Disagree, and Don't Know to indicate your opinion concerning the issue being raised.

1. Are your SDA members conversant with the meaning of environmental conservation and environmental degradation?

Agree	Neutral	Disagree	Don't know

2. Are you aware of the causes of environmental degradation in your region?

Agree	Neutral	Disagree	Don't know

3. Do you understand the dangers posed by environmental degradation?

Agree	Neutral	Disagree	Don't know

4. Based on the Church's teachings, are you informed on what should be done to counter further environmental degradation?

Agree	Neutral	Disagree	Don't know

5. Do you understand the benefits that are derived from a well preserved environment?

Agree	Neutral	Disagree	Don't know

6. Is Sabbath keeping as a distinguishing aspect of the SDA Church being used to urge your fellow members to participate in environmental conservation in this region?

Agree	Neutral	Disagree	Don't know

7. Does the Church's teaching on personal health and hygiene enable you to see the need for conserving the local environment?

Agree	Neutral	Disagree	Don't know

8. Is the Church's teaching on the use of vegetarian diet being used by the leaders to convince the members to see the need to participate in environmental conservation?

Agree	Neutral	Disagree	Don't know

9. Are Church leaders in your area urging members to participate in environmental conservation on the basis of Biblical teachings?

Agree	Neutral	Disagree	Don't know

10. Are your Church members conversant with the Biblical teachings on the necessity of preserving the environment?

Agree	Neutral	Disagree	Don't know

11. Do you adhere to the Church's teaching on environmental conservation?

Agree	Neutral	Disagree	Don't know



### Questionnaire for Environment Officials

1) How many years have you worked in your district? (Please tick whichever is appropriate).

i) 1-3 years

ii) 4-6 years

iii) Over 6 years

2) Are there environmental problems in Kisii County? (Please tick whichever is appropriate).

Yes  No

3) Briefly give the reasons behind environmental problems related to degradation of fresh water, forest resources and soil in farmland.

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

4) Do the local Christian leaders support the government in conservation and protection of natural resources? (Please tick whichever is appropriate).

i) Yes  ii) No

5) If yes, name some of the Churches from which they come.

i).....  
ii).....  
iii).....

6) Explain briefly how these Christians assist in addressing environmental problems.

i).....  
.....  
ii).....  
iii).....

7) How is the local community involved in environmental conservation?

i).....  
ii).....

iii).....

8) Suggest the main constraints to effective management and conservation of natural resources in your area?

i).....

ii).....

iii).....

9) In your opinion, do you think the Church has a part to play in enhancing environmental Conservation?

Yes

No

10) State reasons for your answer.

i).....

ii).....

iii).....

11) Suggest ways in which Church institutions can be helped to enhance the expected environmental conservation and protection in the County.

i).....

ii).....

iii).....



## Appendix II

## List of Respondents

The following is a list of names of some of the respondents of this study. The list does not include the names of all the respondents because some of them had preferred to be anonymous. Hence they did not enter their names on the research questionnaires.

	<b>Respondent</b>	<b>Date</b>
1	Pr. NyakundiNixion	1/4/11
2	Pr. Nyakego	1/4/11
3	Pr. Osindi P.	2/4/11
4	Pr. George	3/4/11
5	Pr. John Gechiko	4/4/11
6	Pr. Ayubu	4/4/11
7	Pr. Ezekiel Mouko	4/4/11
8	Pr. Shem	4/4/11
9	Pr. Charles Onchaga	4/4/11
10	Pr. Enock Omagwa	4/4/11
11	Pr. Nyabuto P.	5/4/11
12	Pr. Shem Mongare	5/4/11
13	Isaiah Jephiter	5/4/11
14	Pr. Nyanumba Z.	6/4/11
15	Pr. Fred Arita	6/4/11
16	Pr. Omanwa	6/4/11
17	Pr. Fred	8/4/11
18	Pr. Ochengo P.	9/4/11
19	Pr. Zablon	9/4/11
20	Pr. Rubansi Kennedy	11/4/11
21	Pr. Nyakundi Alfred	14/4/11
22	Pr. Nyambega K.	20/4/11
23	Pr. Nyachienga J.	4/5/11
24	Pr. Nyansongo D.	6/5/11
25	Pr. Nyamwanda	8/5/11
26	PrNyamwanda J.	8/5/11
27	Pr. Kibagendi .	8/5/11
28	Pr. Evans	12/5/11
28	Pr. Obongo Simeon	12/5/11
30	Pr. Sagini P.	14/5/11
31	Pr. Abuga B.	14/5/11
32	Pr. Nyanumba Z.	15/5/11
33	Pr. Momanyi	20/5/11
34	Pr. Doricah K.	22/5/11
35	Pr Kennedy	23/5/11
36	Pr. Nyambichu K.	23/5/11
37	Church Elders	23/5/11
38	Mr. Meraba J.	25/5/11