

POVERTY, ENVIRONMENT AND CHURCH

**A CHRISTIAN CONTRIBUTION TO THE EARTH CRISIS
AS A KEY TO POVERTY ERADICATION
A ZAMBIAN PERSPECTIVE**

By

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Submitted in partial fulfillment of the requirements for
Masters in Theology and Development, in the School of Theology & Religion
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January 2004

DECLARATION

I, François Ferdinand Murekezi, hereby declare that this whole dissertation, unless specifically indicated to the contrary in the text, represents my original work.

I also declare that I have not otherwise submitted this dissertation in any form for any degree purpose or examination to any university.

Signature

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As Supervisor, I agree to submission of this thesis

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ACKNOWLEDGEMENTS

I am indebted to acknowledge many people for their contribution in writing this dissertation.

Firstly, I wish to express my appreciation to my supervisor Dr. Steve de Gruchy who made an extra effort on my dissertation. Without his wisdom, assistance, patience in supervising my work, discussion, orientation on each chapter it would not have been easy for me to accomplish this academic task. I heartily thank him for his spirituality and theological orientation in this dissertation.

Secondly, the financial support given by the University of KwaZulu-Natal (Formally the University of Natal), and my friends: Ms. Joan Sanderson, Les and Mary Bolton and Chris Stewart is acknowledged.

Thirdly, I acknowledge, and register my heartfelt thanks to my wife Annonciata Nyirataburka, and my two daughters Holiness Namahora and Hope Mwiza for love, spiritual and moral support and care they have expressed through this busy time.

Fourthly, I would like to express appreciation for moral and spiritual support given to me by the community of the Theological College of Central Africa, the members and leadership of the Free Methodist Church in Zambia presided by Bishop Z.L. Shembe. Indeed, I owe thanks to Emeritus Bishop Aaron and his wife Edith for the parental love and advice that they gave during my staying here in South Africa.

Fifthly, I wish to thank Trish McLean of the University of KwaZulu-Natal Language Centre, and Ron Zeiner of Evangelical Seminary of Southern Africa who assisted with error correction.

Last but not least, my acknowledgement goes to the family of Vestine and Ezekiel Ntakirutimana for encouragement, and hospitality afforded to me whilst doing my studies.

ABSTRACT

The environmental crisis and the poverty crisis are among the major challenges the Church in Zambia is facing. In this work I argue that poverty and the ecological crises are interrelated. However, a major problem has been that many programmes carried on by the Churches or church based organizations seem to focus on poverty alleviation not recognizing the linkage between poverty and the ecological crisis. For this reason, this study represents the situation of poverty in Zambia and indicates its links to the environmental crisis.

The aim of this dissertation is to remind the Free Methodist Church in Zambia and the Church in Zambia in general, that as Christians we are mandated to respond to these social issues of poverty and ecological degradation. We have the theoretical and theological contributions necessary to address the above two challenges, if we are keen to transform and build up the community we are ministering to. What is needed is to put into practice our beliefs. I argue that unless adequate environmental awareness is carried out, and that Christians understand the relationship between poverty and the ecological crisis we will not manage to break the cycle of poverty in the community. The Church efforts to carry out environmental awareness based on biblical and theological foundation teachings are a unique contribution that Christians can offer to respond to the earth crisis as well as to contribute to poverty eradication.

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ABBREVIATIONS

ADEN	African Development Education Network
ALARM	African Leadership And Reconciliation Ministries
CCJP	Catholic Commission for Justice and Peace
CRE	Christians Religious Education
ECZ	Environmental Council of Zambia
EPPCA	Environmental Protection and Pollution Control Acts
FMCZ	Free Methodist Church in Zambia
GMT	Gospel Mission Team
HIPC	Heavily Indebted Poor Countries
IMF	International Monetary Fund
JCTR	Jesuit Center for Theological and Reflection
LWF	Lutheran World Federation
MFNP	Ministry of Finance and National Planning
PAGE	Programme for Advancement of Girl's Education
SACC	South African Council of Churches
SARPNT	Southern African Regional Poverty Network Team
SPCK	Society for Promoting Christian Knowledge
UNDP	United Nations Development Programme
UNEP	United Nations Environmental Programme
UNFPA	United Nation Population Fund
WB	World Bank
WCRWC	Women's Commission for Refugee Women and Children
WTO	World Trade Organization
WCC	World Council of Churches
WWF	World Wildlife Fund
ZHDP	Zambia Human Development Report
ZCSS	Zambia Community Schools Secretariat
ZPRSP	Zambia Poverty Reduction Strategy Paper

CHAPTER ONE:

GENERAL INTRODUCTION

1.1 Introduction

The interrelationship between poverty and the environmental crisis is an important key to poverty eradication. Care of the earth is crucial for our survival. I believe that the abuse and exploitation of our earth is the main cause of the poverty cycle and it will lead to our doom. As Mwikamba argues: "whenever humanity acts as the absolute ruler over nature rather than as its partner, whenever humanity decides to develop independently of God and nature –humanity is doomed"¹. As a result, we cannot survive without restoring our relationship with the environment we depend on. I concur with Damian Killeen and Atip Rahman that:

The environment is the source of what every one of us needs to survive- air, water and food; it is also the source of the material we require to take our lives from pure survival to subsistence and beyond- shelter, clothing, tools and the infrastructure of collective human settlement. Absence or denial of these basic necessities constitutes absolute poverty. Unequal access to basic necessities and other environmental resources is the foundation of relative poverty. In addition to being excluded from access to basic resources, the poor are also most likely to be subjected to the degrading or polluting impacts of the consumption patterns of others².

Any integrated development action or holistic development programme will not reach its objectives if it does not educate its participants about the link between poverty and the earth crisis. The church also lacks this insight of recognizing that our prosperity depends on acknowledging this interrelationship between poverty and the environment:

As Christians, our life and the life of our descendants depends on the food produced from the earth, on the air we breath, on the forests that provide us with medicines,

¹ CM. Mwikamba, 'Shifts in Mission: An Ecological Theology in Africa', in Nasimiyu-Wasike A. and D.W. Waruta (eds.), *Mission in African Christianity: Critical Essays in Missiology* (Nairobi: Acton Publishers, 2000), p31.

² Damian Killeen and Atip Rahman, 'Poverty and Environment' 5* July 2003.

<http://www.iied.org/docs/wssd/bp_povertyenv.pdf>

Killeen is working with Poverty Alliance Scotland, while A. Atip Rahman is with Bangladesh Centre for Advanced Studies. This paper was written in preparation of the World Summit on Sustainable Development (Johannesburg 2002).

wood, water, food, recreation and many other things. Thus, the church has a responsibility for safeguarding the production of foodstuffs so that all might be fed, and the purity of water and air, and the fertility of the soil might be maintained³.

It is clear that there is a crisis with the environment but that the environment itself does not cause this crisis. It is caused by humans and their activities; therefore, it is more correct to speak of an "earth crisis"- a crisis to do with the way people are using the earth. In this thesis when I speak of the environmental crisis or the earth crisis, I am drawing attention to the broader problem of the interaction between humans, their cultures and the environment.

1.2. MOTIVATION

Firstly, I have taken the initiative to research this topic after being challenged by my home experience. I come from a rural area where we have been experiencing a cycle of poverty due to the environmental crisis. The church has been generously distributing food to people in my country, but nothing much has been done by the church in tackling the environment crisis.

Secondly, I have worked for a para-church organization, and our aim was to respond to poverty eradication and help people to be self-reliant. Our approach to poverty eradication was to give children and other people food in the form of relief, and at the same time give them seeds to plant during the farming season. My concern has been that, as a Christian organization, we did little to ensure environmental stability and protection for people, by educating them on the importance and spiritual responsibility of a caring environment for their food production and health.

Thirdly, I have been ministering in the refugee camp and settlement of Meheba in Zambia. The churches or faith-based organizations have taken the initiative in responding to poverty eradication in refugee settlements, but little has been done to demonstrate the links between poverty eradication and environmental care.

In my experience the church is ignorant about this topic.

³ Workshop on 'Deforestation and its Effects on Rural Development' *Church and Society Newsletter* 11 (October 1988), p 1.

Fourthly, I have been motivated through what I have read in my academic studies in the Theology and Development Programme. As Berry puts it: "...the care of creation is crucial to human survival, and a supreme test of the reality of Christian faith. Such concern is not just the selfish interest of the developed- North. Nor is it a minority enthusiasm, peculiar to bird-watchers and tree-huggers. Rather, it stems from God's creation commands, from Christ's reconciling work, and from what should be a communion of worship between the human and natural worlds. There is now a belated and increasingly evident humility abroad, which recognizes that scientific and political solutions alone are inadequate."⁴

I have come to realize how great a role the church can play in environmental protection, and also how the rest of creation is a prerequisite for our existence. The truth of the matter is that, "while the plants and animals may do very well without us human beings, perhaps even better, we would quickly perish without them"⁵

I am convinced that until the church comes to realize and accept that "human poverty is both a cause and consequence of environmental degradation"⁶, we will not respond effectively to poverty eradication. I am aware that the church and faith-based organizations have been involved in poverty eradication in Zambia. But my contribution in this research is to bring to the church in Zambia closer awareness that environmental care is a crucial part of an effective response to poverty eradication.

All the above reasons have motivated me to research and point out some theological reasons as to why the Zambian church should be concerned about the environment.

This is the reason why we may shift our mission in development work from caring for people alone, to caring both for human beings and their environment.

⁴ RJ Berry, *The care of Creation: Focusing Concern and Action* (Leicester: Inter-Varsity Press, 2000), covering paper.

⁵ Sallie McFague, *The body of God* (London: SCM press, 1993), p.106.

⁶ RJBerry, *The Care of Creation*, p.19.

1.3. LITERATURE REVIEW

In my reading I have discovered a wide range of resources that continue to help me to develop and motivate my desire to research this subject. The more I have read the more my interest in this area of the link between poverty and environment rises. The different authors realize how great a mandate the church has to care for the environment and to be involved in poverty alleviation. What interests me is that few Christian writers or Christian development workers link environmental care to poverty eradication.

Some of the books that have motivated and raised my interest in this research are:

E. Conradie and D. Field in *A Rainbow Over the Land: A South African Guide on the Church and Environmental Justice*, point out that the vision of sustainable development cannot exist without care of the environment. Beyond that there is the emphasis that this vision of sustainable development is a vision of the Kingdom of God. And the characteristics of sustainable development are: ecological sustainability, provisions of sufficient sustenance for all, a renewed relationship with creation, and provision for human spiritual growth.

This book contributes to my understanding of this topic by helping me to see the cause and mechanisms of the devastation of creation. The authors also judge from a biblical point of view how God has been involved and what work he wants us to do as we use our gifts and talents in responding to poverty eradication.

David Korten, in *Getting to the 21st Century: Voluntary Action and the Global Agenda*, reminds us also that poverty, environmental failure, and social violence are deeply interrelated. He criticizes a development approach that focuses on economic growth and neglects to focus more on the well-being of people and the environment.

According to him, in development practice, "we need an alternative vision in which the well-being of people and the living systems of the planet that is their home, comes first"⁷

⁷ David Korten, *Getting to 21st Century: Voluntary Action and the Global Agenda* (West Hartford: Kumarian Press, 1993), p.67.

K. S. Gitau, in *The Environmental Crisis: A Challenge for African Christianity*, challenges all of us to think about the role the church has to play in correcting errors we have made in the past, of forgetting our role in environmental care. According to him the future of humankind depends on the positive management of the natural resources with which the earth is gifted. This book, the Bible, Christian teachings, and insights from the African heritage are seen as reliable sources that we can rely on in tackling the environmental crisis and hence respond to poverty eradication.

In *Mission in African Christianity: Critical Essays in Missiology*, the book edited by A. Nasimiyu-Wasike and D.W. Waruta; C.M. Mwikamba focuses on a shift in mission that sees an ecological theology in Africa as a new focus that the church should once again take seriously in responding to human needs. In the same book Mary N. Getui argues that the church should consider the environment as a factor for survival and make an effort to educate all its members to care for it. She also indicates forms of environmental crises and she ends her paper by examining the role of the churches.

1.4 RESEARCH PROBLEM

The major question guiding my research is to analyze and raise as a theologian, a Christian awareness of the relationship between the environmental crisis and poverty in the Zambian context. I agree with Killeen Damian and Rahman Atip that:

Despite the linkage of poverty and environmental concerns at the level of macro and locally there is no consensus that the interests of the poor and of the environment are mutually compatible. Ambivalence about this relationship exists amongst those whose prime concern is environment as well as amongst those most concerned with poverty eradication.⁸

Environmental degradation threatens human beings as well as the rest of creation. We cannot separate ourselves from the rest of creation, because what harms the environment harms us also. In fact Getui encourages an understanding that the environment is linked

⁸ Damian Killeen and A. Atip Rahman, 'Poverty and Environment' 5th July 2003.
<http://www.iied.org/docs/wssd/bp_povrtyenv.pdf>

to every aspects of our life⁹. This also means that the cycle of poverty is related to the earth crisis.

However, the Church in Africa and particularly the Free Methodist Church in Zambia is facing this problem of neglecting the linkage of poverty and environmental concerns. The reality is that the church also has mixed feelings about the interrelationship between environment and poverty, for two reasons: The first reason is the church's ignorance about care for the environment as a Biblical mandate. As a result the environment is abused, raped, and exploited by human beings in the pretext of dominion over all creation. The second reason is the non-holistic approach to poverty. The church does not look deeply enough at the causes of poverty. A lot of funds and energy have been spent in meeting the needs of those who are affected by yearly drought, erosion, floods, and sickness due to environmental carelessness and so on, but nothing changes. The Church's efforts in sustainable development have become ineffective because much energy and funds are spent on the symptoms of poverty rather than tackling the causes of dehumanizing poverty. Clearly, as Bradshaw expresses, Christian development cannot be holistic without a concern for the environment. "...in holism, all elements of creation participate in the redemptive plan of God".¹⁰ In my view, the Free Methodist church will not manage to respond to poverty eradication until the church learns and educates Christians about care of the environment.

My research is summarized in the following questions:

- Why should the church know that the environment matters to people living in poverty?
- Has the Church grasped this new theological shift that environmental care is of vital concern for Christian holistic development and a factor for our survival?
- What are some significant contributions the church can make towards environmental care as a key towards poverty eradication?

⁹ Mary N. Getui , ' Mission of the Church and Concern for the Environment' in Nasimiyu-Wasike A. and D.W. Waruta (eds.), *Mission in African Christianity: Critical Essays in Missiology* (Nairobi: Acton Publishers, 2000), p.43.

¹⁰ Bruce Bradshaw, *Bridging the Gap: Evangelism, Development and Shalom* (Monrovia: Marc, 1993), p.101.

1.5 RESEARCH HYPOTHESIS

In this dissertation I argue that as long as Christians in the Free Methodist Church in Zambia do not understand the link between poverty and the environmental crisis, we will not manage to break the cycle of poverty in the community that we are ministering to.

1.6 THEORETICAL FRAMEWORK

In this thesis, my theoretical approach is the theological understanding of development as a holistic vision and praxis. In this holistic approach of Christian development I will be arguing that there are vital connections between ecological care and poverty eradication. I clearly agree with Bradshaw that, "Christian development cannot be holistic without a concern for the environment [and] Solving environmental problems is like solving hunger problems".¹¹ It will not be possible for the Free Methodist Church in Zambia to respond to the challenges of poverty if we do not develop an integrated worldview focused on a holistic vision of poverty eradication.

1.7. METHODOLOGY OF RESEARCH

While my personal experiences in ministry among poor people and also working in refugee settlements in Zambia will enrich this thesis, this is primarily a theoretical analysis in which I will rely on engagement with literature and resources posted on the Internet.

1.8. LIMITATION OF THE RESEARCH

I will limit this research work by focusing mainly on these following points.

- ◆ Firstly, it will be based on studies within the Zambian context.
- ◆ Secondly, this research will focus on the link between the environment and poverty.

¹¹ Bruce Bradshaw, *Bringing the Gap*, pp.101, 107.

- ◆ Thirdly, I will limit my work on theological reflection to the strategies and special contributions that the Free Methodist Church can offer in this field of earth care as a key in fighting against poverty.

1.9 OUTLINE OF CHAPTERS

This research is structured into eight chapters:

Chapter one deals with the motives that led to this study, a literature review of some major books read, the research problem and the research hypothesis; I have also mentioned my theoretical frame-work, methodology and the limitations of the research context.

In chapter two, surveys the situation of poverty and the environment. It highlights some of the reasons that cause poverty in Zambia such as: corruption, poor governance and management, drought, unemployment, diseases and the debt burden. This chapter points out that women and children are the most affected by poverty and ecological degradation.

Chapter three describes some of the signs of the earth crisis such as: land degradation/ and soil erosion, deforestation, air and water pollution caused by industries and mining as well as foodstuff pollution.

Chapter four provides an analysis of reasons and causes for the environmental crisis. Some of these reasons are: globalization, culture and ecological beliefs, lack of government will and policies on the sustainability of the environment, and conflicts in Africa that create a great number of refugees and destruction of the environment.

Chapter five analyzes, how the environmental crisis contributes to the poverty cycle. The first part looks into the impact of health and environment upon poor people. Illnesses and the death of active people lead to a reduction of human resources and the economy. The second part surveys how the environmental crisis reduces harvests and increases the cost of emergency disasters in the area. More examples are given to illustrate the situation.

Chapter six suggests theoretical and theological resources for Zambian Christians to understand this problem of the link between poverty and environment. I survey biblical passages (particularly Genesis 1:28) and theological thoughts that clearly bring out our biblical mandate of caring for the earth. In addition, I interact with some resources in African culture that promote indigenous wisdom in the care of the earth and everything in it.

Chapter seven recommends some practical strategies that the Free Methodist church in Zambia and other churches can adopt in responding to the environmental crisis, and hence respond to poverty eradication. Firstly, in my point view, a holistic approach to Christian development is necessary in order to address poverty in Zambia. Secondly, environmental education from our pulpits, in Bible studies and in worship will make a big change and real shifts in valuing our earth and everything in it.

Chapter eight is the conclusion of this study. It suggests that the church has a great role to play in educating and challenging its members to take responsibility for environmental care as a response to poverty eradication and hence building a sustainable society, free from dehumanizing poverty.

CHAPTER TWO:

POVERTY AND ENVIRONMENT SITUATION IN THE ZAMBIAN CONTEXT

2.0 Introduction

Firstly, this chapter describes poverty in Zambia and its causes, such as: poor governance and management, corruption, drought, agriculture crisis, disease, privatization and unemployment, as well as the debt burden in the Zambian context. It also points out that those most affected by this crisis of poverty are women and children. Secondly, an understanding of the ecological situation in Zambia was prepared readers for chapter three and four that focus on signs and causes of the ecological crisis in Zambia. I would like to mention in advance that the "*Zambia Poverty Reduction Strategy paper 2002-2004*" will be the main resource document, which helps us to understand the gravity of the poverty situation in Zambia. It is a very important document in my research because it is prepared after consultation with different stakeholders countrywide¹².

2.1. The poverty situation in the Zambian context

The poverty situation is the most complex and crucial social challenge that people are facing. In fact, Zambia today is one of the poorest countries in the world, though it enjoys rich mineral and agricultural resources. According to the *UNDP Human Development Report 1999* Zambia now ranks 156 out of 174 countries, having fallen consistently over the past few years, from 136 in 1996, to 142 in 1997, to 146 in 1998. Indeed, of 79 countries for which data is available between 1975 and 1997, Zambia is the only country where the value of the Human Development Index is lower than it was in 1975¹³. This poverty situation needs a quick response from government and civil society,

¹² 'Zambia Poverty Reduction Strategy Papers -March 2002: Table of contents,' 8th June 2003.

<<http://www.imf.org/External/NP/prsp/2002/zmb/01/>>

"Poverty Reduction Strategy papers (PRSPs) are prepared by member countries in broad consultation with stakeholders and development partners, including the staffs of the World Bank and the IMF. Updated every three years with annual progress reports, they describe the country's microeconomic, structural, and social policies in support of the growth and poverty reduction, as well as associated external financing."

¹³ See Peter Henriot, S.J 'The Challenge of Poverty Eradication in Africa and its Relationship to Population and Development: the Zambian Case Study', 12th September 2003.

<http://www.org.zm/publications/population_poverty_dev.html>

as well as the church. The following table portrays the overall and extreme poverty in Zambia, in rural and urban areas, 1991-1998, according to the Zambia poverty reduction strategy paper 2002-2004.

Overall and extreme poverty in Zambia, in rural and urban areas 1991-1999¹⁴

Year	Zambia		Rural		Urban	
	Overall Poverty	Extreme poverty	Overall poverty	Extreme poverty	Overall poverty	Extreme Poverty
1991	69.7	58.2	88.0	80.6	48.6	32.3
1993	73.8	60.6	92.2	83.5	44.9	24.4
1996	69.2	53.2	82.8	68.4	46.0	27.3
1998	72.9	57.9	83.1	70.9	56.0	36.2

2.1.1 What is poverty in the Zambian context?

Poverty is not an easy term to define. It applies to different things according to places, age, group, and gender and faith institutions. For example, according to the World Bank Report 2000, "Poverty is pain; it is like disease. It attacks a person not only materially but also morally. It eats away one's dignity and drives one to total despair".¹⁵

In addition, according the Southern African Regional Poverty Network Team that examined an overview of Zambia's economic and poverty situation:

In the Zambian context it can be defined as deprivation of a long healthy life, education opportunities, access to resources for a decent standard of living (e.g. income and consumption, housing, clean water and sanitation), and lack of freedom to exercise choice and participate in society.¹⁶

¹⁴ Ministry of Finance and National Planning, *Zambia Poverty Reduction Strategy Paper 2002-2004*. (Lusaka: Planning and Economic Management Department, 2001), P. 23

¹⁵ SARPAN Country poverty analysis/Zambia, 'Poverty Reduction Strategy Paper for Zambia, Chapter: An overview of Zambia's economic and poverty situation', 22 January 2004.
<<http://www.sarpan.org.za/CountryPovertyPapers/Zambia/Strategy/index.php>>

¹⁶ SARPAN, 'An overview of Zambia's economic and poverty situation,' 22 January 2004.
<www.sarpan.org.za/countrypovertypapers/Zambia/strategy/chapt1.pdf>

The Zambia Human Development Report, 2003, prepared by the UNDP also defines human poverty is this way: "Poverty is a denial of opportunities and choices most basic to human development. It is a condition that reflects physical, social and political deprivation, as well as lack of assets and income"¹⁷ This deprivation leads Zambians to lack basic social needs such as shelter, water, and food. Thus their human rights, which should be manifested through human dignity, self-confidence and self-respect, are hindered by the poverty situation they find themselves in. In short poverty is a sign and a cause of dehumanization, and deprivation of dignity.¹⁸

2.1.2. Causes of poverty in Zambia

As George Kinoki argues: "The causes of Africa's poverty are many and complex. They are so inter-linked that it is often hard to tell what is cause and what is effect"¹⁹. There are different causes of poverty in the Zambian context such as: governance policy, culture, corruption and lack of management, the physical environmental crisis, the crisis in agriculture, privatization, unemployment and inflation.

2.1.2.1. Poor Governance, Corruption, and Poor Management

Good governance is a key to the development of any country, any country cannot overcome the problem of poverty if it does not also recognize the importance of good governance as well as respecting peace and human rights for all, as a key to sustainable development.

From the governance perspective, poverty is not only little or lack of access to income through employment, entitlement, or other means that determine consumption but also exclusion from participation in institutions and processes

¹⁷ UNDP, *Zambia Human Development Report* (Lusaka: UNDP, 2003), p.12.

¹⁸ JCTR-Social Condition Research Project, "Zambia's Poverty Eradication: Why and What set of principles" (First and Second Quarters 2003), 27 December 2003.

<<http://www.jctr.org.zm/downloads/pov-brief.pdf>> The research carried out by the social Conditions Research project from JCTR reveals that:

-Poverty is a *sign* that development has not occurred, if people are not enjoying the basic human conditions owed to them by reason of their innate dignity as daughters and son of God, made in God's image.

-Poverty is a *cause* that blocks that development by preventing people from working toward these human conditions, marginalising them in the process of empowerment and achievement and thus bringing about more inhumane conditions.

¹⁹ George Kinoki (ed.), 'Vision for a Bright Africa,' in Kinoki, G. and Peter Kimuyu (eds.), *Vision for a Bright Africa: Facing Challenges for Development* (Kampala: IFES, 1997), pp.1-41.

that govern one's life, leading to voicelessness and powerlessness in these processes and institutions. It manifests itself in low educational opportunities, inadequate access to resources, and lack of freedom to exercise choice and participate fully in national development. Governance, on the other hand, refers to processes by which society manages its economic, social, and political resources and institutions, not only for development, but also for cohesion, integration, and well-being of its people.²⁰

It has been observed that bad leaders who were motivated by their self-interest, greed and poor management of public resources destroyed the economy of Zambia. Thus, "even within the limited resources, poverty reduction may not get its due share with wrong prioritization, misdirection of resources, and lack of transparency in their utilization"²¹. Good governance is one of the very important keys in poverty eradication, in the sense that participation of people, transparency and accountability of leaders come together to harness positive strategies for fighting poverty.

2.1.2.2. Drought

From 1991 up till the present, many Zambian farmers have been experiencing drought each year. "The country has witnessed two major drought years in the last decade 1991/1992 and 1995/96. The 2000/01 and 2001/02 seasons were also beset with poor rainfall patterns of alternating dry spells and flooding."²² This has a big impact upon water resources, natural vegetation, fisheries, wildlife, and the soils. As a result, many people in some provinces of Zambia, especially in the rural areas, are surviving through food relief or food work given by the government, NGOs and churches.

2.1.2.3. Crisis in Agriculture

The agricultural sector has suffered greatly in Zambia for three different reasons. First, there is a lack of prioritizing agriculture in the national budget. According to the Southern African Regional Poverty Network agriculture is not given priority in poverty reduction

²⁰MFNP, *Zambia Poverty Reduction Strategy paper 2002-2004*, p.34.

²¹ MFNP, *Zambia Poverty Reduction Strategy paper 2002-2004*, p.29.

²² UNDP, *Zambia Human Development Report 2003*, p. 66.

strategies. It reports "while agriculture is commonly believed to have high potential for poverty reduction, it does not get adequate resources."²³

Second, Zambians have for too long been depending on mining rather than on agriculture. A large number of farmers are retired people who do not have the strength to manage farms. As a result, there is a low level of production of food crops and this increases food insecurity in the community. Third, as stated above, Zambia has been experiencing yearly droughts or unexpected climate change that has affected the agricultural system. This is the reason why the *Zambian Human Development Report 2003*, argues, "The effect (of climate changes) on agricultural production has thus been cumulatively negative. It is noted that external shocks, such as droughts and floods, lead to the collapse of livelihood systems that are already weak due to poor policy implementation."²⁴

2.1.2.4. Privatization and Unemployment

The policy of privatization and/or closing of mines has accentuated the poverty situation in Zambia. Many workers were retrenched. The estimated unemployment rate in 2000 was 50%. This means that half of the Zambian population is not employed.²⁵ The reality in my congregation is that only 1.5% are formally employed, 3% are casually employed and 95.5% are unemployed.²⁶

This unemployment situation in Zambia, especially in the compounds, has created more insecurity because parents are not able to meet the cost of the education and health of their children as well as meeting their daily basic needs.

²³ SARP, Country poverty analysis/Zambia, <<http://www.sarpn.org.za/documents/d000280/>>

²⁴ UNDP, *Zambia Human Development Report 2003*, p.66.

²⁵ Free Online dictionary, 'Zambia definition and thesaurus, what is Zambia? Meaning of,' 5th August 2003. < <http://www.thefreedictionary.com/Zambia>>

²⁶ I have been ministering to this congregation of Pamodzi. It is situated in Ndola, Copperbelt-a former industrial area and a city of rich people. Now most industries are closed.

2.1.2.5. Diseases

The health sector in Zambia is struggling. There are no drugs in clinics and hospitals. There is a great exodus of medical professionals every year due to a lack of motivation and facilities at their working place, in addition to poor salaries. Diseases like malaria and HIV/AIDS compound poverty in the Zambian community by killing or weakening breadwinners. In other words, as it has been researched by Peter Henriot:

The social and economic consequences of the spreading pandemic have been well documented and are experienced every day in families, schools, churches, businesses, industries, agriculture, etc. Every family has been deeply touched by the many premature deaths; every social activity has been profoundly shaken by the numerous occurrences of funerals (which in Zambia have major social demands and economic consequences). It has been estimated that the growth of GDP in Zambia has been set back by ten years because of HIV/AIDS.²⁷

2.1.2.6. Debt burden

The poverty situation in Zambia is aggravated by the huge external debt that the country has to pay yearly. Zambia is a prime example of an African state that ran up a massive debt.²⁸ Over the years, debt service has, on average, accounted for 10 percent of the GDP while all the social sectors together have accounted for only 5 percent²⁹. In 2000, the external debt was US \$6.3 billion. In the past five years the government has been paying at least US \$150 million per year. As a result, this payment of external debt has become a barrier to the provision of educational facilities and good health care services, as well as to poverty eradication³⁰. Zambia is eligible for debt relief under the Heavily Indebted Poor Countries (HIPC), but this is not a solution to the poverty situation that the country is facing. Perhaps there is a need for the total cancellation of external debt.

²⁷ Peter, Henriot, 'The Challenge of Poverty Eradication in Africa and its Relationship to Population and Development: the Zambian Case Study,' 12th September 2003.

<http://www.jctr.org.zm/publications/population_poverty_dev.html>

²⁸ Frik DeBeer and Hennie Swanepoel, *Introduction to Development Studies* (Cape Town: Oxford University Press Southern Africa, 2000), p. 253.

²⁹ SARPAN Country poverty analysis/Zambia, 'Poverty Profile in Zambia: The concept of measurement of poverty', 22 January 2004.

<http://www.sarpn.org.za/CountryPovertyPapers/Zambia/prsp_april/2002/chapter2.pdf>

³⁰ SARPAN, 'An overview of Zambia's economic and poverty situation,' 22 January 2004.

<www.sarpn.org.za/countrypovertypapers/Zambia/strategy/chapt1.pdf>

2.1.3 Who are most affected by poverty in Zambia?

2.1.3.1. Females

Females face the effects of poverty in Zambia more than males due to three important factors. Firstly, the level of education of women is much lower than men. The statistics show that:

For every 100 girls who begin primary school, only 70 complete the primary grades, 23 proceed to junior secondary, 9 to secondary, and 7 sit for Grade 12 School Certificate Examination. Opportunities for boys are considerably better, with 87 out of every 100 Grade 1 entrants completing the primary grades, 37 enter junior secondary, 16 to senior secondary, and 15 for the School Certificate Examination. This narrowing of girls' education opportunities becomes even more pronounced at tertiary level where girls account for only a fifth of university and a third of vocational and technical students.³¹

This poor education leads women to being vulnerable to extreme poverty because they are unable to get better jobs and fewer doors are open for them so that they can earn a good income. As a result they are slaves to agricultural activities and small-scale businesses, which do not bring enough income to survive. To make matters worse, despite experiencing this extreme poverty they still carry the burden and responsibility for providing for the daily food and welfare of their families. This deprivation of the necessary material resources to meet their needs leads women to lack certain basic capabilities to function like men in society.

Secondly, due to a lack of education and gender bias, women are not employed. "Only 12 percent of the formal employment in 1996 accrued to females; the remaining 88 percent accrued to males. And further, 39 percent of women as opposed to only 16 percent of the men, were employed as unpaid family workers in 1998."³²

Thirdly, it is realized in Zambia that, "women are at a much higher risk than men of contracting HIV/AIDS and other opportunistic infections due to factors relating to gender differences with respect to biology, roles, resources, and cultural norms."³³

³¹ ZCSS, 1998. *Information on Community Schools In Zambia* (Pamphlet, Lusaka, 1998), p.4.

³² MFNP, *Zambia Poverty Reduction Strategy Paper 2002-2004*, p.26

³³ MFNP, *Zambia Poverty Reduction Strategy Paper 2002-2004*, p.26

For example, according to a NGO Shadow report of 1999, cited in the Zambia Poverty Reduction Strategy Paper 2002-2004, female-headed households are much poorer than male-headed households.

Incidence of poverty in male headed and female headed households in Zambia³⁴

Household head	Non-poor	Moderately poor	Extremely poor
Male	31.8%	16.8%	51.5%
Female	26.8%	12.9%	60.4%

2.1.3.2. Children

In the Zambian context, children are badly affected by poverty. Hence, a great number of children are subjected to hard labour, dropping out of school into street life and other hard conditions of living due to the high level of poverty they experience in their compounds or villages. As it is expressed in the Zambia Poverty Reduction Strategy Paper 2002-2004:

Child poverty is a conspicuous and growing phenomenon in Zambia. It takes a variety of forms: orphans, street children, working children and children who head households. 16 percent of the children in Zambia are orphans, and the number of orphans is higher in the rural areas, in small-scale-farming households and in low-cost areas where the incidence of poverty is the highest³⁵.

In addition, I would argue, a lack of education seems to me to be a key result of poverty affecting children and the nation in general. According to my understanding education is one of the important keys to development in any nation. Therefore, a lack of education becomes the result and cause of poverty. We have a great number of children who are not able to go to school for different reasons such as chronic poverty in their family or because of the ignorance of their parents, or due to the death of their parents. Country poverty analysis reveals that one in every three primary aged children do not attend school, either because they are unable to find fees or are busy working for cash or at home.³⁶ Unless children's education is looked into very seriously, Zambia will continue

³⁴ MFNP, *Zambia Poverty Reduction Strategy Paper 2002-2004*, p. 26.

³⁵ MFNP, *Zambia Poverty Reduction Strategy Paper 2002-2004*, p. 26.

³⁶ Country poverty analysis/Zambia at < <http://www.sarpn.org.za/documents/d0000280/page2.php> >

to struggle with this problem of poverty eradication. The ignorance and lack of vision will continue to destroy even the little that would help in poverty eradication.

Poverty is a challenge that we are facing in Africa. However, the church in Africa and for that matter the Free Methodist Church in Zambia should not feel that the challenge is beyond our ability to cope with. We ought to bring our efforts together and team with other churches in making an effort to eradicate poverty by empowering Zambians so that they fight against this enemy, poverty. As John Shao comments:

The challenge to African Churches is to empower Africans to realize the full potential of their talents and creativity and to mobilize their contribution to the development and progress of their communities.³⁷

2.2 Environmental/ecological Crisis

The earth is facing different challenges. People are not able to have safe water due to pollution; the numbers of those who immigrate because hectares of productive dry land are becoming worthless desert, deforestation, and global warming are rapidly growing. Floods and acid precipitation, as well as nuclear fallout, are signs of the earth in crisis. In many cases, the damage to the earth is under the pretext of development. For example, as Harvey Sindima comments:

In the name of high productivity Africans were encouraged to use fertilizers. Most of these fertilizers were not tested for the particular soils in which they were used. This resulted in the use of the wrong types of fertilizers. Consequently, soils were burnt with the wrong salts applied to them and made unable to produce as much as had been hoped.³⁸

This is not the sustainable development that poor people need. We need a development that sustains people and at the same time cares for the environment. Warmback echoes these sentiments in his article, 'The Earth is God's and all that is in it: Development from the perspective of the environment' and argues that our development approach should not be motivated by our greed or selfishness but with a concern for the integrity of all

³⁷ John Shao, 'Alleviating Poverty in Africa' in D. Belshaw, R. Calderisi and C. Sugden (Eds.), *Faith Development: Partnership between the World Bank and the Churches in Africa* (Oxford: Regnum, 2001), p.29.

³⁸ Sindima, Harvey, 'Community of Life: Ecological Theology in African Perspective', BC Birch, W Eakin and JB McDaniel, *Liberating Life: Contemporary Approaches to Ecological theology* (Maryknoll: Orbis, 1990), p 141.

creation as well as a holistic approach to sustainable development. I concur with Warmback who reminds the church and all stakeholders in development that:

All that constitutes the natural world needs to be valued. We need a theology that takes matter seriously. While we live in a generous world, its limits are to be respected: there are bounds to bounty. When human beings develop a proper perspective on their place in creation the community of creation will exist in harmony and mutual sustainability. We need to move away from a selfish anthropocentrism, which is characterized by greed and high material consumption, to an attitude that takes seriously the perspective of the environment. Because of the links between ecology and economics in our world economy, a commitment to economic justice will ensure that the needs of people and the environment are met, and that the wide gap between the North and the South is narrowed. We must work towards a world economy that is sustainable.³⁹

This damage to natural assets in turn affects human beings in one-way or another. The people who are threatening the earth are also affected by the different socio-economic crises such as poverty. The reality is that we depend on the environment for our survival. As Mary N. Getui comments, "our livelihood depends on how well we manage our environment. If we maintain the environment, we live longer and have more progress, but if we abuse it we put our existence in jeopardy".⁴⁰

However, we do not need to go far to experience this truth of poverty being caused by our abuse and raping of the environment. In fact, we are experiencing a number of social, economic and psychological as well as political crises because the environment is tied to all aspects of our life. It means our survival. If we threaten it, we destroy future generations and ourselves.⁴¹

We are bound together with the environment we live in. Our survival will depend on the social, economic, and political recognition that there is one community to care for. This is a one earth community, the community of creation. Harvey Sidima echoes the same idea: "community must be based in a consciousness that all creatures are part of all others, that humans share a common destiny with nature."⁴²

³⁹ Andrew Warmback, 'The earth is God's and all that is in it: Development from the perspective of the environment,' in *The Journal of Theology for Southern Africa* 110 (July 2001), p.88.

⁴⁰ N. Mary Getui, 'Mission of the Church and Concern for the Environment, p.43.

⁴¹ N.Mary Getui, 'Mission of the Church and Concern for the Environment, p.43.

⁴² Harvey, Sindima, 'Community of Life: Ecology Theology in African Perspective,' in Birch Charles, William Eakin and Jay B. McDaniel (eds.), *Liberating life: Contemporary Approaches to Ecology Theology* (Maryknoll, New York: Orbis Books, 1990), p.146.

There is a need to acknowledge that there is a mutuality and inter-dependence of all creation on earth (human and non-human). This should be well highlighted in our community by the church. Now is time for the church to listen to the voice of John Shao:

Africa must not allow the continued degradation of its environment in the name of either development or short-term financial gain. Instead, it has to accompany development efforts with due concern for the protection of its natural environment to ensure that it can sustain present and future generations.⁴³

2.3 Women and the environment crisis

There is enough evidence to suggest an important link between women and the environment. H. Barrett provides four reasons that clearly show that women are linked to the environment in Sub-Saharan Africa. These are: domestic reproduction, income generation, community management and agricultural production.⁴⁴ Firstly, women, as providers for their homes and families, interact with the environment for domestic reproduction such as: fruit, nuts, medicines, relish, honey, water, condiments, fuel wood, herbs, vegetables and spices.

Secondly, income generation is another reason that links women to the environment. Women are becoming bread winners for their homes by trading environmental products in their local markets such as fish, local beers, vegetables, local maize, millet, potatoes, sugar cane, forest fruits, fire woods, and other household materials locally made.

In this way, the importance of women as users and distributors of forest products, usually on a small scale and within the local economy, could be claimed by ecofeminists to epitomize the bonds between women and nature. An alternative interpretation is that the selling of 'free' goods from the local environment is a means by which rural women can survive, despite limited access to land or capital resources.⁴⁵

Thirdly, according to Barrett, women are very involved in community management. This is a new approach to development where governments are shifting responsibilities to communities to build and repair schools for their children, to maintain health care

⁴³ John Shao, 'Alleviating Poverty in Africa,' p.29.

⁴⁴ Hazel Barrett and Angela Browne, 'Gender, Environment and Development in Sub-Saharan Africa,' in Binns Tony (ed.) *People and Environment in Africa* (Chichester: John Wiley & Sons, 1995), p. 32-34.

⁴⁵ Hazel Barrett, 'Gender, Environment and Development in Sub-Saharan Africa,' p. 3.

centers, roads, and water taps. Women are the ones most used in all the above activities on the pretext that men are busy in cities and mines looking for employment.

Fourthly, women are linked to the environment through agricultural activities and other activities related to family welfare. In rural areas four typical activities are brought together in summarizing the involvement of women with the environment:

- Many men migrate to the cities to seek employment leaving the women to engage in exhausting agricultural work in soil-eroded fields.
- A lack of electricity supplies combined with the effects of deforestation leads to women walking long distances to collect firewood.
- Similar distances have to be walked to polluted rivers and ponds to obtain drinking water and to do washing
- Mothers and grandmothers care for children who have become sick as a consequence of water pollution and malnutrition.⁴⁶

In addition, Dr. Shimwaayi Mutemba, as the director of the Environment Liaison Center in Nairobi, who is writing from a Zambian perspective, identifies two other points that we can never overestimate while we think about women, sustainable livelihoods and the environment. First, women play a great role in the sustainable development program, which is related to the environment. He argues, "Women's relationship to the environment and their importance in sustainable development cannot be overstated. They are themselves painfully aware of the threat to their own lives and their children from onslaughts on the environment."⁴⁷

Second, in support of this above insight, Mutemba expresses his conviction, born as a result of his research on women and agricultural change that, "not only the environment is most linked with sustainable development, but also that women play a pivotal role in this, particularly in the area of food security."⁴⁸ Therefore, we cannot afford to talk about the link between the environment and poverty and forget to mention women's positive and negative environmental impact.

⁴⁶ Ernst Conradie and David Field, *A Rainbow Over the Land: A South Africa Guide on the Church and Environmental Justice* (Sybrand Park: Western Cape Provincial Council of Churches, 2000), p. 43.

⁴⁷ Ken Gnanakan, *God's World, Biblical Insights for Theology for the Environment* (London: SPCK, 1999), p. 161.

⁴⁸ Ken Gnanakan, *God's World*, pp 2-3.

2.3 Conclusion

In conclusion, it is very crucial to acknowledge that our response to the ecological crisis in Zambia will depend on understanding the level and causes of poverty in Zambia. Poor people need our attention if we are to protect the beautiful Zambian environment for the sake of future generations. However, understanding the poverty situation in Zambia goes hand in hand with also tackling the root of the environmental /ecological crisis. Thus the following chapter will examine the signs of the earth crisis /ecological degradation.

CHAPTER THREE:
**EXAMINATION OF SIGNS OR INDICATIONS OF ENVIRONMENTAL
 DEGRADATION IN ZAMBIA**

3.0 Introduction

Signs of environmental degradation also accompany the poverty situation in Zambia. Steven Bouma-Prediger states; "Indeed, it is rare that a week passes without learning of some new ecological degradation. With each newspaper and television report, or increasingly because of our own firsthand observations, we are being shaken from our comfortable ignorance about the state of our earthly home."⁴⁹ The above reality in newspapers and television reports about ecological degradation is not only the reality in the American context but also in the Zambian context. The echoes of land degradation, deforestation, water and air pollution, as well as foodstuff pollution as the signs of the earth crisis frustrate Zambians and they also become challenges to any church that aims to fight against poverty. With this in mind chapter three attempts to analyze the above stated major environmental crisis indications.

3.1. Land degradation or pollution

The degradation of our land is in many cases human made. First of all, the land does not have a rest. Farmers exploit the land constantly. The land needs a rest in order to regain its fertility and feed its people. However, our misunderstanding of "*dominion*" (I will deal more with this term "*dominion*" in chapter six) does not allow a rest period. As a result, the land has lost its topsoil and fertility. Instead of resting the land, fertilizers are used yearly. This also makes the land more wasted and polluted. Secondly, due to our human greed and selfishness, a great portion of land is in the hands of a few. Often, a remarkably fertile piece of land is allocated to politicians and other rich people, while unfertile and poor land is allocated to peasants and becomes a battlefield for a thousand people, overcultivated, and overgrazed, which leads to further erosion and diminished fertility.

In other words, as pointed out in research done by Kinoti:

⁴⁹ Steven Bouma-Prediger, *For the beauty of the Earth: A Christian Vision for Creation care* (Grand Rapids: Baker Academic, 2001), pp.39-40.

[I]n some countries unjust land tenure, bad land use policies and corruption give fertile lands to a few wealthy or politically powerful Africans. The poor majority, the peasants, who are thus deprived of ownership of good land, become tenants of rich landowners and have no incentive to care for the land, while others are driven into ecologically fragile, marginal lands⁵⁰.

In addition, in many cases, while peasants are allocated poor land, next to them are immeasurable, untouched hectares of idle land called "state land", reserved for development activities that never come.

Thirdly, fertilizers and insecticides are degrading the fertile soil. Emission of chemicals from industrial smoke stacks and exhaust pipes settle on the earth⁵¹. The research shows that estimates of the global extent of land degradation is caused by chemicals and imposed by commercial farmers. Loren and Mary Wilkinson, in their article, 'The Depth of the Danger' comments, "Many fertilizers provide the chemicals which plants need, but fail to build up the soil itself. While healthy soil supports a complex, living network of microscopic organisms, failure to add nutrients reduces soil to an increasingly sterile 'growing medium': less fertile, and more prone to erosion."⁵²

Fourthly, the land or soil erosion is caused by a range of factors including wind and water, compaction, drought, and desertification of soil due to deforestation or removing green plants that cover the soil.⁵³ The cost of land erosion is very expensive. The reason is that soil erosion also affects local streams, canals, or irrigation and hydro-electric

⁵⁰ George Kinoti and Peter, Kimuyu (eds.), *Vision for a Bright Africa: Facing Challenges for Development* (Kampala: IFES, 1997), p.36.

⁵¹ Klaus, NÖrberger, *Prosperity, Poverty and Pollution: Managing the Approaching Crisis*. (Peitermaritzburg: Cluster Publications 1999), p. 78.

⁵² Loren and Mary Ruth Wilkinson, 'The Depth of the Danger', in *Transformation* 10:2 (April/June 1993), p. 3.

⁵³ Art, Meyer, and Jocene Meyer, *Earth-Keepers: Environmental Perspectives on Hunger, Poverty and Injustice*. (Ontario: Herald Press, 1991), p. 77.

See also other cause factors of soil erosion mentioned by Art and Jocene Meyer:

- The pressure of economic incentives on farmers to produce more
- Competition for cropland, forcing farmers to use land not suited for cultivation.
- Increasing population pressure, especially in the third World
- Abandoning crop rotation and other sustainable types of agriculture
- Rising demand for food that reduces the area followed in key dryland farming regions. This leads to wind erosion.
- Shortened following and rotation cycles in tropical regions due to population pressure. Organic content and thus water -holding capacity is reduced with subsequent soil erosion.
- The shift to large-scale equipment and farming in developed countries such as the U.S.

reservoirs. There it may also cause some interference with irrigation, navigability of waterways, or electrical generation.⁵⁴

Therefore, there is a need to match and balance production and the ecological system. If society does not sustain the land and protect it from erosion we are putting our survival at risk. I tend to agree with Lester R. Brown in his book *Building a Sustainable Society* that, "Civilization can survive the exhaustion of oil reserves, but not the continuing wholesale loss of topsoil".⁵⁵ We are in danger if we continue to lose the topsoil due to our ignorance. Hence, our future depends on our siding with those who are environmentally friendly and halting our human activities that are worsening our ecology, particularly the land.

3.2. Deforestation

The destruction of forests is caused by two major reasons. Firstly, poor people are forced to use the forest for firewood and expending their land for farming purposes as a way of daily survival. Second, the economic middle class and developed countries need timber and pasture for their cattle for commercial purposes, which has led to the extremely dangerous destruction of forests.⁵⁶

This problem of deforestation is a reality that Zambia is experiencing. In fact, Nalikwanda (Member of Parliament) explain that deforestation is the serious concern that leads to the negative impact on future prospects of development for the generations to come in the Western province of Zambia in places like Kaoma, Mongu, and Senanga. Raw timbers are exported to South Africa and other countries, and then imported back to Zambia as very expensive furniture made from Zambian wood.⁵⁷ This deforestation does not only contribute to environmental degradation but also to chronic poverty as we lose our fruits and animal foods, medicines, fresh air and rain from those forests.

⁵⁴ Art, and Jocene Meyer, *Earth-Keepers*, p.79.

⁵⁵ See Lester R. Brown, quoted by Art and Jocene Meyer, *Earth -Keepers*, p.73.

⁵⁶ Meyer, *Earth -Keepers*, p.114

⁵⁷ *The Post* (Lusaka) September 8, 2003 Timber ban -Editorial

Deforestation is very crucial in disturbing the balance of the ecosystem in different ways. By way of example, deforestation reduces the sustainable production of native forest products and support for indigenous inhabitants, decreases rain, and increases drought.

In addition, deforestation reduces the evapotranspiration of water from vegetation to the atmosphere with consequent potential reduction of rainfall, increases exposure of soil surfaces to direct sunlight with resulting higher ground temperatures, and increases atmospheric carbon dioxide levels with consequences for climate change. It also causes the extinction of species.⁵⁸ As Field and Conradie comment,

Deforestation forms perhaps the most critical example of ecological devastation in most African countries. This leads to soil erosion, floods, desertification, an increase in the level of CO₂ in the atmosphere and in this way to climate change. Although the rainforests occupy 7% of the world's land surface, they contain 50% of the world's species and are therefore reservoirs of genetic resources.⁵⁹

This shows us how much we ought to protect the forests from this destruction.

According to the report from UNEP (Department in Charge of an Assessment of the Status of the World's Remaining Closed Forests) many policies are made and conventions are signed in order to conserve and preserve the remaining forests, but still the road is very long. Deforestation continues to be rampant.⁶⁰

3.3 Water pollution

Zambians and others from developing countries lack adequate water to drink. They may have enough water but it is polluted by our human activities. To illustrate this point Bouma-Prediger says that

⁵⁸ Calvin, DeWitt, *Caring for Creation*, p. 18.

⁵⁹ Ernst Conradie and David Field, *A Rainbow Over the Land*, p.32.

In addition, Conradie, and Field give other information that may help us to understand more how crucial deforestation and desertification are:

- ◆ Of Africa's 703 million hectares of forests, 3.7 million hectares (0.6%) are being cleared annually.
- ◆ Globally 12 million hectares of indigenous forest are destroyed annually. 1 square mile of rain forest is destroyed every 6 minutes. An area the size of Austria is cut down each year.
- ◆ One tree is planted for every ten cut down. At this rate, all remaining tropical forest will be destroyed by the year 2035
- ◆ Deserts are increasing around the world at a rate of 6 million hectares per year.
- ◆ For every ton of agricultural produce, South Africa loses 20 tonnes of soil on average

The Sahel, the semi-arid area south of the Sahara dessert moved 100 km southwards between 1950 and 1975

⁶⁰ UNEP, *An Assessment of the Status of the World's Remaining Closed Forests*, UNEP/DEWA/TR01-2, Division of Earth Warming and Assessment, UNEP (Nairobi, Kenya: UNEP, 2001).

About 1.5 billion people in the world today, or roughly 25 percent of the total population, do not have an adequate supply of drinking water. In the so-called developing world, only 53 percent of the population has access to potable water. The issue here is twofold; having enough water (water supply) and having uncontaminated water (water purity). Both are important aspects of water degradation.”⁶¹

There are three main reasons that lead up to water pollution. Firstly, human sewage has polluted lakes and rivers. Due to a great number of people in cities, in refugee camps and different slums, it becomes difficult for the city council management to control or help to clean sewage. Even though in the Zambian context the government has managed to privatize the Department of Water and Sewage this does not resolve this human sewerage problem. Instead, it has worsened the situation because people are not able to pay water and sewerage bills. In rural areas, their toilets/ latrines are not deeply dug or are dug near rivers. In fact some do not use toilets at all, and instead they use bushes. All of this pollutes drinking water. By way of example, the Zambia Human Development Report, 2003 states, “in 2000, 49.1% of households nationally, 29.5% of rural households, and 86.1% of urban households had access to safe drinking water.”⁶²

Secondly, chemicals used in farming pollute water. This is a real problem that we in Zambia and Africa as a whole are struggling with. The agricultural sector supports many people and it is a means of livelihood. In order to feed a great number of people we ought to use chemicals to increase the harvest. This is a reality in Zambia where, apart from commercial farmers, even small-scale farmers or poor peasants depend on chemicals for a bumper harvest. In time of rain these chemicals contaminate our drinking water. As a result, many sickness and diseases continue to occur due to the polluted water we use daily.

Thirdly, industrial waste has also been dumped into rivers. The African continent has been a dumping place for industrial countries. But also within our countries we have a problem of waste from factories. The Copperbelt has been experiencing this due to its being an industrial and mining area. A recent report confirms that water contamination

⁶¹ Steven Bouma-Prediger, *For the beauty of the Earth*, pp. 49-50.

⁶² UNDP, *Zambia Human Development Report 2003*, p. xvi.

from the Zambian industrial sector continues to be a problem (and) solid waste management remains poor.⁶³

Indeed, when Nürnberger thinks about ecological deterioration, he does not only limit himself to these three above mentioned ways of water pollution, but also brings to mind a fourth strong point which is a lack or shortage of water. He reminds us that this is a big problem that the African communities are facing:

The scarcity of water is another problem. Irrigation farming, the industrial use of water, rising domestic consumption levels and urban population growth all combine to make fresh water a dwindling resource. Ground water is being depleted through boreholes. Oceans and fresh water reserves are polluted by oil tankers, industries and waste. If the ice in the Polar Regions begins to melt, large fertile areas along the coasts will be swamped.⁶⁴

Where there is lack or shortage of water, women and children spend more hours in fetching water and their contribution to community development and poverty reduction is minimized.

3.4 Air pollution

Air pollution is another sign of ecological deterioration. Yearly, in his book, *Sociology of Environmentalism Globalization* cautions that air pollution is a crucial problem to look into for all of us because it affects everyone. He argues "given that we all have to breathe the air and that it cannot be filtered before use, air pollution is probably the most pervasive environmental problem".⁶⁵

John Yeld also gives some statistics that we may think about and consider- 1.2 billion-city dwellers world-wide are exposed to excessive levels of sulphur dioxide. Only 20 percent of the world's 2.26 billion urban dwellers live in cities where air quality is acceptable.⁶⁶ The acid gas sulphur dioxide (SO₂) is very difficult to be controlled in a

⁶³ UNDP, *Zambia Human Development Report 2003*, p. xvi.

⁶⁴ Klaus Nürnberger, *Prosperity, Poverty and Pollution*, p.78.

⁶⁵ Steven Yearley, *Sociology, Environmentalism, Globalization: Reinventing the Global* (London: SAGE Publications, 1996), p.34.

⁶⁶ John Yeld, *Caring for the Earth –South Africa. A guide to Sustainable Living* (Stellenbosch: WWF,1997),p.41.

poor country like Zambia because it is formed from the burning of coal and oil, and in our homes by using fires and boilers.

It (the acid gas sulphur dioxide) is bad for people because, in the long term, it can attack the lungs and because it aggravates asthma as well as bronchial and other respiratory problems. It is also bad for the environment in general because its acidity encourages the destruction of many building stones and because it can attack trees and acidify rivers, spoiling conditions for fish and aquatic life.⁶⁷

In Zambia, this is a reality that we cannot run away from. In fact it was often observed that in the province of the Copperbelt, as the most affected ecologically polluted area due to mining and industries:

The people who live on the copperbelt have put up with unacceptable levels of Sulphur dioxide in the air for too long. The poor people of Konkoko in Mufulira cannot grow cabbage to supplement their income because of sulphur dioxide emissions from the mines. The actual cost in human health will probably never be known.⁶⁸

In summary, air pollution is very dangerous to our daily health. It is increasing respiratory illnesses such as: tuberculosis, pneumonia, bronchitis, asthma and some nose and throat ailments. The most affected are children who stay in townships near industrialized, and polluted cities. The rural areas also do not escape from these consequences of air pollution; they are indirectly or directly contaminated by the results of air pollution.⁶⁹ In addition, the culture of burning in the farming sector in Zambia contributes a lot in the forming and in the emission of sulphur dioxide in rural areas.

3.5 Foodstuff pollution

There is a question that needs to be asked -can genetic engineering solve or eliminate the Zambian food crisis? The answer is complex because in theory there are a number of promises of genetic engineering for agriculture, hence for food security; nevertheless, this biotechnology has become a 'cultural invasion'.⁷⁰ It has destroyed our traditional food

⁶⁷ Steven Yearley, *Sociology, Environmentalism, Globalization*, p.34.

⁶⁸ Chilekwa Kampeshi, 'Thou Shalt Not Pollute the Environment,' in *The Enviro-Line: Environmental Council of Zambia* (January-April 2002), p.6.

⁶⁹ African Development Education Network, *Care for Africa* (Nairobi, Kenya: ADEN, 1995), pp. 50-51.

⁷⁰ Steve de Gruchy, "Biotechnology as 'Cultural Invasion': Theological Reflections on Food Sovereignty and Community Building in Africa" in *Scriptura* 82(2003), 82-93

security system and ecological community. I concur with Jack Doyle who refers to biotechnology as a double-edged sword for the Third World.

In one sense biotechnology (genetic engineering) is a double-edged sword for the Third World. It has the potential to increase the quality and efficiency of agriculture production.... But it also has the potential to disrupt local agriculture and encourage further dependency on expensive agricultural imports and technology... In many ways it depends on who controls and dispenses this new technology.⁷¹

Who does control and dispense this biotechnology in Africa? The northern commercial farmers and governments motivated by their political agenda dictate to our nations and force them to use this new technology without thinking about the future consequences to our lives and ecological degradation.

Aside from the issues of genetic engineering we are exposed to polluted foodstuffs through buying packaged and take-away food along the roads. As a result animal diseases are transferred to us through agricultural technology and water, which is contaminated by agricultural farming chemicals. Yearley argues: "Since agrochemicals are now manufactured for a world market and extensively traded internationally, food pollution too must be regarded as a global risk."⁷² To make matters worse, due to chronic poverty and famine in southern Africa as well as malnutrition we are exposed to expired/polluted foodstuffs exported or given as food aid from the North. For example, Zambia's food aid increased from a low of 5,000 metric tons in 1974/75 to a high of 116,000 metric tons in 1986.⁷³

3.6 Conclusion

To conclude, it is realized that the Government is under pressure from fuel, food security, and waste management/ maintaining clean urban areas as well as to be free from epidemic diseases such as malaria and the outbreak of cholera.

Zambia and other developing countries face huge challenges in their efforts to eradicate poverty because

⁷¹ See Jack Doyle in *Multinational Monitor* (28 February 1986) is quoted by Art and Jocele Meyer in *Earth-keepers in Environmental Perspectives on Hunger, Poverty and Injustice* p.179.

⁷² Steven Yearley, *Sociology, Environmentalism, Globalization*, p. 41.

⁷³ Ezekiel Kalipeni (ed.) *Population Growth* (London: Lynne Rienner Publishers, 1994), p.4.

these above signs of environmental degradation became major hindrances to actions of development. In fact, there is fear that even the high technology invented cannot resolve this problem of poverty. Because the more these technologies are used, the more our sustaining land is abused and exploited so that it will not even be able to support our future generations. Indeed, the fertilizers and organic chemicals used in farming are produced from non-renewable chemicals. This means that there is no hope for our future generations of being without those non-renewable chemicals. As there is no sign without a cause, the next chapter analyzes the causes that contribute to the ecological crisis.

CHAPTER FOUR:

ANALYSIS OF REASONS FOR THE EARTH CRISIS

4.0 Introduction

The Bible reads:

The creation waits in eager expectation for the sons of God to be revealed. For the creation was subjected to frustration, not by its own choice, but by the will of the one who subjected it, in hope that the creation itself will be liberated from its bondage to decay and brought into the glorious freedom of the children of God. We know that the whole creation has been groaning as in the pains of childbirth right up to the present time. Not only so, but we ourselves, who have the firstfruit of the Spirit, groan inwardly as we wait eagerly for our adoption as sons, the redemption of our bodies. (Romans 8:19-23)

“The earth dries up and withersthe earth is defiled by its people”(Isa.24: 4-5).

These New and Old Testament echoes make us reflect on the root causes of the environmental crisis and the role of human beings in this ecological degradation.

Chapter three has described some of the signs of the ecological crisis. Now chapter four will provide an examination of the causes for the earth crisis such as: globalization, global warming, refugees, cultural beliefs, population growth, and governmental policies.

4.1 Globalization as a contributing factor to the earth crisis

The world is under the control of business people and giant powers in the name of globalization. Larry Rasmussen mentions three waves of globalization that continue to affect our ecology system such as: colonialism, development and free trade global capitalism. According to him “ the waves of globalization continue to institutionalize the conquest of nature as the key to progress, just as they continue to live off nature for the sake of human well-being, rather than living off nature’s income only”.⁷⁴

⁷⁴ Larry Rasmussen, ‘Global Eco-justice: the Church’s Mission in Urban Society’ in *Mission Studies. Vol. xvi-1: 31* (1999), p.127.

The reason is very clear; the globalization system does not have anything to do with mutuality and reciprocity in its mode of trading and managing earth resources. Trading is based on self-interest and exploitation of natural resources.

An underprivileged person does not have a share in or access to these earth assets. While, in reality, "God has entrusted the land and all its natural resources to all people to care for, keep and use it within communities."⁷⁵ But we have failed to share equally these earthly resources.

The major problem of globalization is that the wealth of this earth is in the hands of a few people, while the majority is suffering and is accused of being the cause of this earth crisis. In the name of globalization, this world has become one village and the rich people have almost all the opportunities to exploit the earth and own it. Globalization has taken this earth as if it does not belong to God and has been entrusted to all people for the fair distribution of its resources. Instead, this earth belongs to a few, self-centered owners as the African church leaders in their regional consultation, held at Nairobi from 6th –10th May 2003, revealed.⁷⁶

Therefore, who does own this world? And how do they contribute to the ecological crisis that we are experiencing? The questions seem to be complex but the African Church leaders in their consultation enumerated seven groups of people that they thought to have monopolized all resources of this world. First this world is in the hands of governors who control it for their personal gain. They give land to their own people according to their perception as they also grab it from those they dislike. As a result, the land is in the hands of a few while, the majority are suffering and starving due to the lack of or poor cultivating land.

The second group that owns this earth is the group of big business and industry, Trans-National Corporations like the World Bank, the International Monetary Fund and World Trade Organization. These organizations dictate to poor nations what to do and how to do it. In many cases, policies and rules imposed on poor countries lead to chronic poverty

⁷⁵ 'The earth is God's let's keep it that way', in *Challenge 69* (2002), p. 27.

⁷⁶ 'The earth is God's let's keep it that way', p. 27.

and heavy debt that developing countries pay through exploitation of their natural resources due to more interest demanded.

The third group is the developers who also have power to control this earth in the name of development projects that do not even allow local people to participate. The developed countries and their people invest in our land and all the benefits go back to these nations. Poor people do not benefit, instead, those factories and companies occupy even their land. As a result, local people are displaced from their ancestors land and located in poor productive places.

In fourth place appears, the affluent 20% of the world's population who own 80% of the world's resources. This means that the wealth of this earth is in the hands of the minority while the majority is suffering terribly from poverty and the ecological crisis. There is no equity in sharing of these earthly resources.

In fifth place comes industrialists whose factories and companies pollute the earth at the expense of the poor while the poor are accused of being the root cause of the environmental crisis. Industrialists own good land that ought to feed local people and the government has little power to control them. As a result, many policies that should protect our ecology system are violated and ignored.

Sixth, foreign investors, who come in to developing countries, are more interested in the profits on their investments. They have nothing to do with poverty eradication and its impact on poor countries. To make matters worse, our leaders are interested in inviting those foreign investors in order to bring in more foreign currency, without thinking how much their investments affect our land and increase poverty levels. This attitude should be condemned. It dehumanizes the poor community. I would concur with Steve de Gruchy, lecturer at University of KwaZulu-Natal (School of Theology) that:

It makes no sense, in other words, to turn fields of agricultural land into cotton plantations, even if this brings in foreign currency. The chances are slight of that foreign currency filtering down to the local labourers so that they are better fed than if they simply grew their own food. Yet, the current debt crisis and Structural

Adjustment Policies often put the value of foreign currency ahead of the hunger of the rural population.⁷⁷

Unfortunately, that is what many of the developing countries, including Zambia, are doing. Many agricultural investors are involved in cultivating cotton and tobacco which are more profitable on the international market but leave local people poor because even productive land is in the hands of those investors. As I said above, those profits are banked in the original countries of the investors and any foreign currency taxed from them is used to pay debts that our countries owe those developed countries.⁷⁸

To conclude, the seventh owners of the earth are males who are also recognized as a contributing factor in bringing burdens to this earth. One may say that this is also a cultural degradation. Through the patriarchal system men own land and all benefit from it in many parts of Africa. In the words of Auxilia Ponga, the patriarchal culture favors men over women, and that also contributes to ecological problems:

In Zambia, most if not all-ethnic groups are patriarchal, even the ones that are known as matrilineal, decisions are made by maternal uncles or other male relatives from the mother's side. In patriarchal societies, there are systems in place to reinforce patriarchy, such as law, religion and traditions, which benefit men.⁷⁹

Women do not have a say on land even though they are the ones to care for and contribute more in making that land more productive.

The Zambian people do not escape from the evil actions of the above seven groups that seemingly own the earth, rather than God. The people do not own anything and they are just under the dictation of developed countries. As a result, Zambia is frustrated by ecological crisis and poverty not because it does not have resources, but because someone else, in the name of democracy and globalization, controls its resources.

⁷⁷Steve de Gruchy, "Biotechnology as 'Cultural Invasion': Theological Reflections on Food Sovereignty and Community Building in Africa" in *Scriptura* 82(2003), p.92. -See footnotes number 41 of this article.

⁷⁸ "The earth is God's let 's keep it that way" in *Challenge* 69 (2002), p. 27.

These seven owners of the world described in the paragraphs above are drawn from the declaration made by African church leaders in the regional Consultation on Environment and Sustainable Development held from 6th to 10th May 2002 at Machakos in Kenya.

⁷⁹ Auxilia Ponga, 'Gender and Culture: Implications on Social Justice' in *Jesuit Centre for Theological Reflection Bulletin* 41(Third Quarter, 1999), p.23.

4.2. Global warming and the destruction of the earth's protective shield

The actions of humans in warming and heating the earth are becoming so intensive that it is reaching the point where the earth's protective shield is being destroyed day by day. The earth is getting hotter by humans activities. The climate change is becoming non predictable. If nothing is done to reverse this trend, Steven Bouma-Prediger expresses the well founded fear that "Every ecosystem on earth will be affected: coral reefs and rain forests, savannas and alpine tundras, desserts and rivers and oceans. In these and countless other ways, due to global climate change, the ecological system of our planet will be altered and its various inhabitants affected, for the worse"⁸⁰ Calvin DeWitt goes deeper to explain how these global warming activities are threatening our earth.

Alternation of planetary energy exchange with the sun is bringing about global warming and destruction of the earth's protective ozone shield. We have been doing this by altering the concentration of greenhouse gases responsible for regulating the earth's temperature and adding ozone depleting chemicals to the stratosphere, thereby reducing the capacity of the atmosphere to filter out damaging ultraviolet-B radiation. These activities are seriously threatening the earth at the fundamental planetary level.⁸¹

This destruction of the earth's protective ozone has serious consequences for people; health, agriculture systems as well as to other non-humans. We no longer expect rain at the right time and climates are in unpredictable at this moment. This is a reality in Zambian context because it is now difficult to predict the Zambian climatic changes.

4.3 Ecology and refugees

4.3.1 Indigenous people as environmental refugees/displaced people

To begin with, as a result of the commercial motives, indigenous people are removed from their native land to other deserted and unfertile land, where they are exposed to lack of food, shelter, and water as well as sanitation facilities. This brings different effects to the ecological system. First, their natural resources such as forests are exploited and they

⁸⁰ Steve Bouma-Prediger, *For the beauty of the Earth*, pp. 63-64.

⁸¹ Calvin, DeWitt, *Caring for Creation: Responsible Stewardship of God's Handwork* (Grand Rapids, Michigan: Bakers Books, 1998), p.17.

work for their exploiters as cheap labor. Second, their land is given to miners. In turn, indigenous people are accused of being the cause of ecological degradation in that area. In my view, it seems that Ernst Conradie and David Field's view is correct in the South African context but it is also applicable from a Zambian perspective:

The people who have lived in these areas for centuries have been removed from their ancestral land to make way for this development. When they remain, their land is polluted and their resources of food destroyed. The elite reap the economic benefits of this exploitation but the communities directly affected receive little benefits. They are forced to become part of the modern economic and cultural order. In the process the values and customs of their own culture are distorted and destroyed. The ecological wisdom, which they gained from centuries of experience, is rejected as primitive and a hindrance to development. When the powerful belatedly discover the need to conserve the environment indigenous people are often forced off their land to create nature reserves and national parks.⁸²

For instance, in Zambia, people have been removed from their lands in order to give way to mining and factories. They were located near those mines and factories, thus indigenous people were not only are forced off their land, but they have also been vulnerable to the environmental crises and they continue to be exposed to it in their new locations. Another example is related to the gradual impoverishment that people of the Southern Province of Zambia are facing for two reasons. First, they have been removed from their fertile land near the Kafue River in order to build the Kariba dam. Second, their agricultural sector is always affected when these dams are opened or more water than usual is released because their fields and flats are flooded.⁸³ This exactly confirms Gnanakan's point of view that:

In the name of conducting 'good business' finding 'sound' investments, and making 'good' money, the powerful use the land and resources of the meek, depriving them of the ability to take care of themselves and the creation, depriving them of the inheritance of generations. Disconnected from land that could sustain them, they are driven into the cities [or compounds in the case of mining in Zambia], joblessness, and poverty.⁸⁴

However, the policy makers forget that owning land is very important to indigenous people and it is associated with the human being's honor, dignity, respect and power.

⁸² Ernst Conradie and David Field, *A Rainbow Over the Land*, p. 42.

⁸³ N.H.Chabwela Chabwela H.N. 1990. 'Exploitation of wildlife resources in Zambia: A critique', in Lungwangwa, Geoffrey and Irene, Sinyangwe. *Utilizing Local Resources for Development* (Lusaka: Professors World Peace Academy of Zambia, 1990), p. 62

⁸⁴ Gnanakan, *God's World*, p.15.

4.3.2 Ecology and armed conflict refugees

Africa is experiencing millions of refugees due to the internal and ethnic problems. For instance, Zambia is one of the countries that have so far received many refugees.

The table below shows how refugees are located in different provinces and districts.⁸⁵

COMP	PROVINCE/DISTRICT	POPULATION
Kala	Luapula (North Kawambwa District)	18,209
Mwange	Northern/Mporokoso District	23,009
Meheba	Northwestern	53,597
Mayukwayukwa	Western/Kaoma District	19,215
Nangweshi	Western/Senanga District	14,217
Ukwami	Eastern/ Petauke District	981
Urban/per-Urban	Lusaka	3,692
Spontaneous settled	All over	130,000
Total		262,920

The environment in Zambia shows the impact of the increased number of refugees. Many forests have been chopped down and some places have become deserted due to the presence of refugees. The refugees do not only cause environmental problems like species extinction, deforestation, and air and water pollution, but also they have caused high levels of poverty/starvation in the area. Zambia hosts refugees from Mozambique, Ethiopia, Sudan, Rwanda, Burundi, DRC, and Angola. (As I am doing my research many Angolans refugees are going back home, because peace seems to be returning to Angola after the death of rebel leader Savimbi.) As a result, Zambia has a real environmental problem in the provinces, which hosts refugees.

Elsdon confirms the above reality by arguing that, "refugees from the civil and political war in Mozambique flee to Malawi, from Ethiopia to Sudan, (from Rwanda, Burundi,

⁸⁵ WCRWC, 'Assessment of Reproductive Health for Refugees in Zambia' 22nd December 2003. <<http://www.womenscommission.org/pdf/zm.pdf>> It is a document prepared by Women's Commission for Refugee Women and Children on behalf of the Reproductive Health for Refugees Consortium, September 2001.

and Angola to Zambia). Starvation seems the most likely prospect, because the wars simply compound the effects of drought and poverty.”⁸⁶

The armed conflicts do not only cause a growing number of refugees, who are subjected to poverty and deprivation of all their human rights; it also destroys any sign of developmental action in the countries where they are coming from and disturbs the community actions/projects of hosting countries. As a result, even after a war, refugees are not keen to go back home because all their achievements are destroyed.

4.3.3 Human and Cultural degradation

Political refugees or indigenous refugees who are moved by force from their land lose their dignity and self-respect. The culture of ownership is degraded until even in the new place they occupy they do not have a sense of responsibility and stewardship. There is exploitation and abuse of the environment because they always think that they are pilgrims and at any time they will leave that place. As far as I am concerned this is a reality for many refugees.

For example, in my experience in a refugee camp, I came to realize that the refugees, even those who have been in Zambia for more than 25 years, still have the attitude that Meheba is not their home. They do not plan any durable projects or plan any ecological care action, which may take even two years to bear fruits. In the long run, their traditional wisdom in environmental protection and knowledge in agriculture has vanished. Therefore, the indigenous refugees, environmental refugees and armed conflict refugees are exposed to this human cultural degradation. As a consequence, the successful ways of living in harmony with the land are forgotten. Names of otherwise undescribed forest creatures are lost. The use of the wide array of tropical species of human food, fibre, and medicine are extinguished.⁸⁷ Gnanakan continues to argue that:

Not only is the great variety of natural species being diminished, but also the diversity of our agricultural heritage. Seeds of a wide variety of plants suited to small farms and gardens are displaced by new strains suited to mechanized planting and harvesting—strains uniform in colour, size, and time of ripening. An

⁸⁶ Ron Elsdon, *Green House Theology: Biblical Perspective on Caring for Creation* (Tumbridge Wells: Monarch, 1992), p.224.

⁸⁷ Gnanakan, *God's World*, p.15.

aggressive economy maximizing immediate return at the expense of sustainability is sweeping the globe⁸⁸.

From the above statement, the political refugees or displaced indigenous people who are moved from their traditional heritage by governmental policies or those who are displaced by armed conflict are humiliated, and brain washed as they are subjected to cultural degradation of different forms. Their cultural way of caring and protecting the earth and its creation is swept out of their mind. This is why, to some extent, in many refugee camps and mining areas environmental care is not understood.

4.4 Culture and ecological belief

Traditional African communities have a great knowledge that sustains the environment in which they are living in. In other words, “ Traditional African wisdom holds the environment sacred. It believes that the environment has the potential ability to sustain human beings adequately, if they in turn care for the environment.”⁸⁹ The community is aware that the earth is the source of their existence. As a result they cherish it. But again there are some cultural activities or rituals that appear as hindrances to sustainable environmental care.

4.4.1 The Land belongs to males

Promoting equality and women’s empowerment goes together with access to land by women. However, this is very crucial in the Zambian perspective where the difference in the gender gap is widening.⁹⁰ To begin with, the issue of gender in sharing land is a crucial matter that we cannot ignore in the Zambian context. Most of the tribes in Zambia follow patriarchal customs and men hold land tenure rights. This means that the land, which is very important in farming activities, belong to males not to females. As a result, while agriculture is a means of survival to many Zambians, women who are the breadwinners in many families do not have access to land. As Anthony Musonda argues,

⁸⁸ Gnanakan, *God's World*, p.15.

⁸⁹ African Development Education Network (ADEN), *Caring for Africa: A Training Manual on Environment*. (Nairobi: ADEN, 1995), p. 85.

⁹⁰ According to Zambia Poverty Reduction Strategy Paper 2003, the difference in the gender gap is widening from 2% in 1990 to 6.7% in 2002. See page xiv.

“Even though women contribute significantly to agricultural production in sub-Saharan Africa they do not have access to resources such as land, labour, technology, credit and extension services as men do.”⁹¹ This lack of access to land tenure rights contributes to poverty growth and environmental degradation. The small amount of land there is to cultivate is overused, and contaminated by chemicals/ fertilizers used yearly in order to make that land more productive.

It is very important for women to have land tenure rights in the effort to eradicate poverty. “One can only invest in environmental management if he/she is assured of a long-term stay in the locality”.⁹² It is also very crucial to note that the same cultures have been neglecting and isolating women in matters of holding land while the land means so much in all activities that affect their daily lives.

As a result, women are failing to make a difference in environmental care in their own communities. Unfortunately, the above culture forgets that, “Women’s participation in environment programmes is crucial to survival of households and will be promoted. Women’s interests in securing the subsistence needs of their families lead them to be protective of natural resources.”⁹³ The time has come for women to be integrated by the church, government or NGOs in the fight against the environmental crisis by having access to land heritage and education and other technologies needed for ecological protection.

4.4.2 The culture of rural-urban migration

Firstly, through the introduction of mining in Zambia during the colonial period until now, people have been leaving their rural areas for job opportunities in mining areas. The post-colonial governments did not change that culture. Hence, the mining culture overlooked the agriculture sector even in national budgeting. For example, the First National Development budget allocated only 15.4% to the agricultural sector. The second, National budget was 11 % of the total budget of 1.2 billion which means that

⁹¹ Anthony Musonda, ‘Small scale farmers as agents of change’ in *Jesuit Center for Theology and Reflection Bulletin 42* (Fourth Quarter 1999), p.25.

⁹² MFNP, *Zambia Poverty Reduction strategy paper*, p. 120.

⁹³ MFNP, *Zambia Poverty Reduction Strategy Paper*, p.120.

4.10 was dropped. The third plan budgeted 15% for the agricultural sector.⁹⁴ This shows that the government was in support of the rural- urban migration.

This culture of draining the work force from rural areas has contributed greatly to environmental degradation in both the rural and in the urban areas. To begin with, in rural areas, from then until now, there is a continuing lack of strong, able-bodied people who are able to get involved in productive agriculture. Usually, it is women who are subjected to insufficient land, which they do not even own, to feed the rural community. Because of persistent hunger in rural areas and also much reliance on forest production (fruits and vegetables) for feeding their families and earning an income, the ecological system is disturbed and unbalanced. Rural –urban migration does not only contribute to food insecurity in rural areas and in the cities. In addition, when rural women are brought in to cities alongside their husbands due to lack of education, and poor income, they are exposed to isolation, urban poverty, and to a health cosmopolitanism which leads again to ecological crisis.⁹⁵

Secondly, the rural –urban migration causes the congestion in cities. Consequently, the government fails to meet people’s social needs for those shanties, which results in an environmental crisis in many compounds. For example, as a result of rapid growth of population cities like Lusaka, the Copperbelt, and other towns along the railway lines, have a shortage of hospitals, clinics, and health centers or where they do exist, there is no medical material/tools and qualified professionals. This contributes a lot to the environmental crisis in urban areas especially amongst the many poor, urban people who surround cities in shanties without access to clean water and toilets, shelter and other first basic human needs.

Third, as Zambia is experiencing the decline of economy, people are facing the serious problem of having even one meal per day, as more people are in cities than in rural areas. These people in cities are not employed since many factories and mines have closed.

⁹⁴ Nsolo J.Mijere and Alifeyo Chilivumbo, ‘Rural-urban Migration and urbanization in Zambia, During the Colonial and Postcolonial Periods,’ in Ezekiel Kalipeni (ed.), *Population Growth and Environmental Degradation in Southern Africa* (London: Lynne Rienner Publishers), p.156.

⁹⁵ Nsolo J.Mijere and Alifeyo Chilivumbo, ‘Rural-urban Migration and urbanization in Zambia, During the Colonial and Postcolonial periods,’ p.152.

They do not have even enough land for gardening and cultivating a few vegetables. For this reason, many people –especially children and women in shanties are facing malnutrition, as they are not able to have a minimum nutritious diet.

In concluding this point, I concur with Mijere and Chilivumbo that, “With the decline of the Zambian economy, the urban poor are experiencing immeasurable hardships. Rural development strategies have had to be curtailed, in part, due to unchecked rural-urban migration and the national economic crisis”⁹⁶ This is a crisis that the country is experiencing. A solution lies in the hands of the partnership between the church, the government and other civil societies as they work together as a team to dialogue with rural and urban people for the sake of durable solutions.

4.4.3 The traditional culture of farming

The traditional culture of farming has also contributed to the ecological crisis in different parts of Zambia. For example, the traditional culture of farming, which is called “Chitemene”, involves burning trees and grasses before cultivating. It is believed by traditional farmers that these ashes are good manure for crops, millet, and pampuckines. Therefore, each year hectares of forest are cut without any policy to plant other trees. This is not only deteriorating the land but also this open air burning contributes greatly to the emission of carbon dioxide from the smoke, which is harmful to the ozone shield. For this reason, Kelvin Kachingwe urges all farmers in Zambia to adopt a new strategy of combating environmental degradation using clearer agricultural technology that does not pollute the air, water or harm the ozone shield⁹⁷. Thus, it is clear that this traditional technology of burning brings harm to the environment and that our earth is at stake.

⁹⁶Nsolo J.Mijere and Alifeyo Chilivumbo, ‘Rural-urban Migration and urbanization in Zambia, During the Colonial and Postcolonial Periods,’ p.174.

⁹⁷ Kelvin Kachingwe, ‘Combating Environment Degradation Using Cleaner Agricultural Technology’ in *The Enviro-Line: Environmental Council of Zambia 14* (January –April 2002) p12.

4.5 Population growth and the ecological crisis

The statistics show that the Zambian population increases while the means for feeding this population is decreasing. For example according to the estimation given in 2002, the population growth rate is 1.9%, with a birth rate of 41.01 births per 1000 population, and the death rate was 21.89 deaths per 1000 population. Yet in 2000, the unemployment rate was 50%, and inflation remains close to 20% (e.g. the exchange rate per US Dollar was K1, 314.50 and last was K3, 848.85).⁹⁸

Population growth contributes in one way or another to environmental stress. As it has been observed by Nürnberger, “ population growth increases the pressure on the land, overgrazing, erosion, deforestation, slum settlements, and so on. When the periphery begins to develop in the direction of industrialisation and urbanisation its ecological impact increases.”⁹⁹ First, Zambia experiences a great number of refugees in Africa. Consequently, a visit to refugee settlements in Zambia helps one to observe that the pressure on land, overgrazing, erosion and deforestation in those areas are undeniable realities.

Second, as have noted there is an uncontrolled rural-urban migration in Zambia. As it has been confirmed in the argument below of Lester R. Brown as quoted by Art and Jocelle Meyer, uncontrolled rural-urban migration also causes an ecological crisis. Lester R. Brown realizes:

The present uncontrolled urban growth in the Third World is the result of failed economic and population policies driven more by rural poverty than urban prosperity.... For developing nations the policy of neglecting agriculture has produced stagnating or inadequate income growth in rural areas while the policy of importing large scale labor-saving technology to achieve instant industrialization has meant that urban job opportunities have not grown as fast as the numbers seeking work.¹⁰⁰

The Zambian government is failing to control the rural-urban migration, and their presence in cities has resulted in ecological crises that are beyond control. This is

⁹⁸ Free Online dictionary-Zambia definition and thesaurus. What is Zambia? Meaning of, 05th August 2003. <<http://www.thefreedictionary.com/Zambia>>

⁹⁹ On living conditions and ecology in Asian “Megacities” in *Newsweek*, May 91994, pp. 36-44.

Quoted by Nürnberger, (1999), p. 72.

¹⁰⁰ Art and Jocelle Mayer, p. 172.

remarkable when one approaches the townships and compounds that surround all provincial cities or mining areas. Nsolo J. Mijere and Alifeyo Chilivumbo comment:

Rapid population growth at the national level and high rates of urbanization [has] exacted a heavy toll on government revenue. The government has been unable to provide sufficient facilities, services, and personnel to cope with the expanding urban population.¹⁰¹

In compounds, people are living under difficult circumstances for varying reasons. Initially, the sanitation is deplorable as there is not enough clean water. Furthermore, they are overcrowded and they do not have any system to clean their shanties. As a result, they are vulnerable to epidemics and there is a risk of a great number of deaths in those compounds.

However, it is necessary to note that the reduction of the population growth through family planning may take away the issue of the rural-urban migration or resolve the problems of the ecological crisis in cities. The solution of the environmental degradation in urban areas lies in addressing the issues of the social problems that people are facing.

In other words, Peter Henriot, sums up:

Population problems are often the consequences of social problems and not their causes. Unless the social problems are addressed, population problems cannot be dealt with. This means that poverty eradication is central to any policy that would address the demographic challenges facing a poor country. To put this thesis in a technical phrase: population pressure is both an independent variable (cause) and a dependent variable (effect) in relation to the progress of development.¹⁰²

4.6 Government policy makers and the sustainability of the environment

Making policy that supports sustainable environment is crucial in fighting against the ecological crisis. However, the Zambian government has not focused its energies on this concern. Firstly, many factories and mines were opened without enough assessment of the negative and positive impacts to the environment. In addition these factories and mines were privatized and the government had little influence on their involvement in environmental protection. As a result, mining areas are suffering from environmental

¹⁰¹ Nsolo, Mijere and Alifeyo Chilivumbo, 'Rural-urban Migration and urbanization in Zambia, During the Colonial and Postcolonial Periods,' p.174.

¹⁰² Peter, Henriot, 'The Challenge of Poverty Eradication in Africa and its Relationship to Population and Development: the Zambian Case Study,' 12th September 2003) at http://www.icttr.org.zm/publications/population_poverty_dev.html

crises more than other places in Zambia. To make the situation worse, the mines and factories, which used to contribute towards the environmental care, are now closed and the council or retired former miners are not able to control or manage the environmental crisis in those mining areas. Indeed, as it has been revealed in Zambia Poverty Reduction Strategy Paper 2002-2004, the government thought that,

...privatization of the parastatals would generate private investment to revitalise the economy and for the industries to invest in pollution control technology. In reality, this has not been the case. Instead, rising unemployment has forced many people to increasingly exploit natural resources as a means of survival. The most affected by poverty and environmental degradation are women and youths as they have limited access to land, other productive resources, as well as limited employment in the formal sector.¹⁰³

In addition, the government had no source of income to sponsor the involvement of the Environmental Impact Assessment process in the designing and setting up of any project that the government wants to bring into the country. This is why, in the pretext of poor economic status of the country, environmental issues are new and environmental propagation and awareness is very poor. It is carried on in a slow process.¹⁰⁴

Secondly, lack of people's participation in their own projects has also been a major cause of environmental degradation, which leads to poverty in the country. Participation of people in planning, implementing, evaluating, and leadership of the projects has been "a significant step forward in understanding relationships between poor people and their environments".¹⁰⁵ Lack of participation is not only a critical issue in rural areas but also in the urban sector. People are not involved in defining their perceived and felt needs. As a result, those projects are not people centered and owned by people. Consequently those projects are vandalized and destroyed by the community.

What has caused many projects to fail or to not make a difference in the community is because people are not involved; especially in decision making and planning of their own projects. If they are involved in identifying their needs, planning, implementing, managing, and evaluating project programmes in their community, they can benefit a

¹⁰³ MFNP, *Zambia poverty Reduction Strategy paper 2002-2004*, p. 118.

¹⁰⁴ See Bwembya Mwanza, 'Bottled natural water is it always safe,' in *The Enviro-Line*, Environmental Council of Zambia (May-August 2003), p.9.

great deal and even be able to fight against the ecological crisis in that community. Instead, people are forced to participate in projects they have not planned and they are unaware of its objectives and purposes. It should be recognized that, "People's participation in development must be voluntary and democratic, and not be manipulated to serve the interest of unscrupulous persons or groups."¹⁰⁶

If people participate in recognizing and/or enumerating their felt needs, and planning projects/programmes to respond to their needs, they would also participate in caring for their environment. However, the Zambian government has been accused of having little to do with involving people in setting up projects, and the management of those projects. According to H.N.Chabwela, it is noted that lack of participation of local people in environmental care policies results in an environmental crisis in many location of dams in Zambia. This lack of involvement in planning big or small projects has affected their present life and even the generation to come. For example in the building of dams (Kariba on the Zambezi, Kafue Gorge and Teshiteshi on the Kafue River), irrigation schemes, the creation of national parks and game management areas, choosing forests reserves or construction of roads, hotels and other development activities, local people are not involved. And these projects were set up without enough consideration of the conservation of environment. Instead of involving these poor people they are accused of being primitive, illiterate, and ignorant about the projects that could positively affect to their future. Actually, in many cases poor people are displaced and receive no or little benefit from development activities.¹⁰⁷ This development without conservation did not only displace people who became indigenous environmental refugees in their land.

¹⁰⁵ Steve Brace, 'Participatory rural appraisal-a significant step forward in understanding relationships between poor people and their environments' in Binns Tony (eds.), *People and Environment in Africa*. (Chichester: John Wiley & Sons, 1995), p.39.

¹⁰⁶ Frik De Beer and Hennie Swanepoel, *Introduction to Development Studies*, (Cape Town: Oxford University Press Southern africa, 2000), p. 128.

¹⁰⁷ H.N. Chabwela , 'Exploitation of wildlife resources in Zambia: A critique,' in Lungwangwe G and I. Sinyangwe, *Utilizing Local Resources for Development*. (Lusaka World Peace Academy of Zambia), p.61.

It has been also observed that there are many disadvantages¹⁰⁸ associated with those projects that did not include people in planning, and management that could perhaps have been avoided if poor people's voices had been heard.

Third, it appears as if both the government and the people who prefer to work in mines and factories, have also neglected the agricultural sector. The farming is mostly reserved for commercial farmers and retired people. The rural agricultural system is neglected at the expense of mining. For too long the government of Zambia has been depending on mining production rather than agriculture. In fact, the farmers have been under pressure from Government policies that reduce prices of their products in order to feed urban people. As it is noticed,

In addition post independence government policies were biased toward urban rather than rural areas. For example, the pricing of agricultural products was deliberately kept low to ensure a less attractive and unprofitable. Free educational, medical, and social services established under the socialist learning philosophy of humanism benefited the urban areas more than the rural areas.¹⁰⁹

This has caused many youths and men to leave the rural areas and to come into cities seeking employment, good education and medical facilities. To make matters worse, even today, schools and hospitals are diminished due to lack of care. We still observe the great number of unemployed people in urban areas who cannot contemplate of joining rural farming as an alternative to living in this harsh economic failure.

¹⁰⁸ John Wright, 'Hydro-Power Development in Zambia-Prospects for the Future' in Lungwangwe G and I. Sinyangwe, *Utilizing Local Resources for Development* (Lusaka World Peace Academy of Zambia, 1990), p.77.

John Wright mentions some disadvantages that are associated with reservoirs and the regulation of water flow in Zambian perspective as he was working with the Zambia Electricity Supply Corporation Limited (ZESCO).

1. A dam is a barrier to normal stream flow, which affects fish immigration. Spawning waters and the feeding habits may be reduced or obstructed. This may lead to a decline in fisheries down stream from the lake.

2. Loss of nutrients to down stream waters may lead to reduce biological productivity and consequent reduction in fisheries.

3. Sediment deposition in the reservoir will reduce sediment load in the river below the dam, with consequent increased erosional power of the river, affecting agriculture and changes in the river channel.

4. The inundation of what could be large expanses of land may mean the dislocation of humans and animals.

¹⁰⁹ Nsolo J. Mijere and Alifeyo Chilivumbo, 'Rural-urban Migration and urbanization in Zambia, During the Colonial and Postcolonial Periods,' p. 174.

4.7 Conclusion

This analysis of why Zambians, (and Africans in general) are facing an ecological crisis, is very important for anyone or group that needs to respond to this crucial problem. Zambia or Africa has a beautiful culture that we can explore and use in enriching our environment. We have enough resources to feed our people and fight against poverty. The crucial part is how we can pool our efforts in making policies that protect our ecological systems. In summary, having explored the poverty situation in Zambia in chapter two, and having analyzed the signs and causes of the ecological crisis in chapters three and four, the fifth chapter brings me closer to the interrelationship or linkage between poverty and ecological degradation.

CHAPTER FIVE:

THE RELATIONSHIP BETWEEN POVERTY AND THE ECOLOGICAL CRISIS

5.0 INTRODUCTION

To start with, there is one question that needs to be asked: On which level are poverty and the ecological crisis understood to be interrelated factors or causes and consequences of one another? In answering this complex question, I hope that chapters two, three and four have built a foundation for chapter five. In short, chapter two has surveyed and analyzed the issue of the poverty crisis in Zambia. In chapter three I have indicated the signs of environmental degradation. In stressing the point, chapter four has described the causes of the ecological crisis. As it would be futile to attempt to deal with the poverty situation and the signs and causes of the earth crisis without setting the linkage between them. Thus chapter five portrays the link between poverty and environmental degradation. The argument in this chapter is that there is an interconnection between the two. To summarize, I would agree with the Zambia Poverty Reduction Strategy Paper, which portrays the linkage between poverty and the environmental crisis as a “vicious circle” or a “downward spiral”:

The relationship between poverty and environment is characterized as a “vicious circle” or a ‘downward spiral’. The poor often rely on the environment resources for their livelihood. At the same time, they are affected by the way others use environmental resources. Hence, the involvement of the affected people in environmental management is crucial to the success of poverty reduction. While exploitation of natural resources contributes to economic growth, the needs and opportunities for the surrounding people should not be ignored. Rapid increases in the population combined with over-exploitation of resources threaten the lives of people.¹¹⁰

5.1 Lack of access to basic necessities

Unequal sharing of natural resources is a crucial point that contributes to poverty. While the world is full of abundant resources to feed and meet the needs of all people, a great number of people are struggling to have one meal per day, shelter and clothing.

¹¹⁰ MFNP, *Zambia Poverty Reduction Strategy Paper 2002-2004*, p. 118.

Access to pure water and unpolluted air are not available in many areas. The question to be asked is: What went wrong with humankind? In agreement with Celia Deane-Drummond, humankind does not lack resources but the readjustment of priorities and equity in sharing what God has disposed in our hands.

The earth is able to support the total human population, but at a cost of readjustment of priorities and lifestyles. For the poorer peoples this means access to basic education, employment and health care within the context of their particular culture. In rural areas it includes a secure access to land as a necessary prerequisite to subsistence farming. For the wealthier peoples the readjustment is away from consumerism to the adoption of a simpler lifestyle.¹¹¹

Natural resources, which are supposed to feed and cater for all of us, are in the hands of a few people. As scholars and development practitioners, D. Killeen and A. Atip Rahman state:

Unequal access to basic necessities and other environmental resources is the foundation of relative poverty. In addition to being excluded from access to basic resources, the poor are also most likely to be subjected to the degradation or polluting impacts of the consumption patterns of others.¹¹²

However, the activities of the poor are viewed as the main causes of the ecological crisis, instead of recognizing that those who grab almost everything from the poor are the main culprits of environmental degradation and poverty. I would agree with Roland Lesseps who is much involved in the Kasisi Agricultural Center at Lusaka that:

This link between poverty and the environment, however certainly does not result from the poor being the ones who are mainly degrading. It is the wealthy people and nations who contribute most to environmental degradation through their excessive consumption of natural resources (often taken from poor countries) and their release of waste material into the environment in excess of the earth's ability to absorb them.¹¹³

¹¹¹ Celia Deane-Drummond, *A Handbook in Theology and Ecology*, (London: SCM Press Ltd, 1996), pp. 137-138.

¹¹² Killeen D. and Rahman Atip, "Poverty and Environment", 23rd June 2003.

<http://www.iied.org/docs/wssd/bp_povrtv env.pdf>

¹¹³ Roland Lesseps, S.J. 'Poverty Versus the Environment: A False Dichotomy,' in *Jesuit Centre of Theological Reflection Bulletin* 53(Third Quarter 2002), p.26.

It is in this context that the poor have little control over the earth crisis. What the poor share with the environmental crisis, more than the rich, is a lack of sustainability and suffering. While wealthy people cause this earth crisis to a larger extent than the poor, it is the poor who suffer the most. Thus, in my understanding, there is a truly intimate link between poverty reduction and environmental management. In summary, the Zambian people have all the basic necessities to cater for everyone. The important focus will be to reflect on how the natural resources of Zambia are shared and how they should be equally distributed to Zambian citizens.

5.2 Link between poverty and environment

It seems that a lack of access to basic necessities is due to the misunderstanding of the relationship between poverty and earth degradation. This interconnectedness has long been the subject of debate. It is a complex relationship that still raises discussions. Robin Grimble sums up this linkage debate as this: "many millions of people in developing countries are closely dependent on natural resources and the abundance and condition of these resources has a major bearing on present and future livelihoods, particularly of the rural poor. That poverty and the environment are linked in some way has long been known (e.g. United Nations Conference on Human Environment in 1972) but the nature of the relationship is still much debated."¹¹⁴ In my opinion failure to understand this link between poverty and environmental degradation is what has impoverished many people. Unless it is proved to the contrary, I still support as correct, the view of the World Commission on Environment's declaration of 1987:

Poverty is a major cause and effect of global environmental problems. It is futile to attempt to deal with environment problems without a broader perspective that encompasses the factors underlying world poverty and international inequality. Many parts of the world are caught in a vicious downward spiral: Poor people are forced to use environmental resources to survive from day to day, and their impoverishment of their environment further impoverishes them, making their survival even more difficult and uncertain¹¹⁵.

¹¹⁴ Robin Grimble, 'Rural Poverty and environment Management: A framework for understanding,' in *Transformation 19* (April 2002), pp. 121.

¹¹⁵ Robin Grimble 'Rural Poverty and environment Management: A framework for understanding,' p. 121.

Until the ecological crisis is considered and tackled by all stakeholders in the development arena, the situation of poverty will continue to ravage Africa, including Zambia.

According to the United Nations Development Report of 2000, there is still a big challenge to sustainable development programmes because the relationship between poverty and the environmental crisis has been neglected. The Governments' plans for combating poverty do not include environmental care. Instead, their plans add more impoverishment and further ecological crises¹¹⁶. Until those involved in fighting poverty realize that environmental care matters in poverty eradication, nothing much will be achieved.

5.3 Poverty facts that contributes to the earth crisis

Zambians are living in extreme poverty. Poor people (either in rural or in urban areas) are living in situations of hardship that force them to perform activities that then lead to the ecological crisis. Livelihoods in rural areas depend upon forest products or other harvests of natural resources, such as charcoal burning, fishing and selling timber. By way of example, as one travels through any province of Zambia one does not need to drive far before seeing people who are selling fruit or other products from natural resources as their means of daily living.

As Brandt argues,

Poverty plays its part, too, in extraction and depletion of species and general environmental degradation. The poor do cut trees and deforest land for firewood and building materials. They also farm steep slopes and thereby accelerate soil erosion. They know that what they do is harmful to the land, but survival gives them little choice.¹¹⁷

Thus there is the question to be asked, "Whilst poor people are suffering and struggling to get one meal per day on the table, how could one expect them to care for this earth?" The answer is complex but in order to sustain the environment all stakeholders are called to

¹¹⁶ See, UNDP, 'UNDP Poverty Report 2000', 21st August 2003.

< <http://www.undp.org/povertyreport/chapters/chap9.html> >

¹¹⁷ Don Brandt (ed.) *God's Stewards: The Role of Christians in Creation Care*. (California: World Vision International 2002), p. 67.

adopt positive attitudes of supporting the poor in their daily struggle for survival. According to an Oxfam observation that I agree with:

An effective approach to sustainable development must support poor communities in their efforts to meet basic needs, on which they depend. This requires action to increase food security, improve shelter, sanitation, and water supplies, providing better health care and education, and increase income.¹¹⁸

This also requires that rich people and nations take the responsibility of positively supporting development projects that aim to rebuild the natural resources that are threatened by human action (rich and poor). It would be good if some rich people/nations change their worldview that the poor are poor because they are lazy, instead of understanding that poor people are poor (at some degree/level) due to the greed and selfishness of the so-called first World who are inordinately rich at the expense of the third world.¹¹⁹

5.4 Examples of linkage between poverty and the environmental crisis

5.4.1 Dependence on natural resources as a source of income

In the Zambian context, one can easily realize how much the poor people still depend on natural resources as their source of income in order to survive. Roland Lesseps, for example, mentioned that, "In central Zambia women gather fruits and mushrooms from the woodland for sale along the roads, and men produce charcoal from woodland trees and take it by bicycle to town markets."¹²⁰ This is not only done in central Zambia but throughout the country. In the refugee camps, people survive because they are able to go to the forest and gather the different fruits and vegetables. Furthermore, the refugees and the rural people depend much on firewood in order to cook and build their shelters.

¹¹⁸ Oxfam, *The Oxfam Report: it's Time for a Fairer World*, (Banbury: Oxfam), p.3.

¹¹⁹ DJ Hall 1982, *The steward: a Biblical symbol comes of age* (New York: Friendship Press for Commission on Stewardship, National Council of the Churches of Christ in the USA), p.85.

¹²⁰ Roland Lesseps, 'Poverty versus the Environment: A False Dichotomy,' in *Jesuit Centre for Theological Reflection, Bulletin 53* (Third Quarter 2002), p.27.

In many cases, these products from natural resources do not sell easily. This means that the poor people have to sell these products at cheap prices and harvest more in order to earn an income. Consequently, the natural resources are over exploited and this leads again to poverty, as nature is no longer producing enough to feed those who depend on it.

5.4.2 Unemployment and the ecological crisis

Lack of employment contributes to a great extent to the growth of poverty in Zambia. One of the consequences is that an unemployed person has no alternative means to survive apart from relying on the natural resources to get his/her daily bread. The Zambia Poverty Reduction Strategy Paper confirms this,

...side effect of poverty and higher unemployment is that due to lack of an alternative to wood fuel used in heating and cooking, there has been increased deforestation. Equally, low staffing levels in the relevant government departments have led to unsupervised logging and poor forest revenue collection."¹²¹

As an example, unemployed people are no longer able to pay their electricity bills; as a result, firewood and charcoal are the best alternative. They are also involved in charcoal making as a means of getting a small income to educate their children and to survive.

5.4.3 Sickness and death of active people

The sickness and death of active people due to the environmental crisis is usually remarkable in Africa at large and in Zambia particularly. The first remarkable effect of the natural environmental deterioration in Zambia is food insecurity that leads to chronic malnutrition and death from hunger. Hence a reduction of human labour also contributes to growth of poverty levels. To illustrate the above point, it is argued,

Among all the countries in Southern Africa, Zambia shows the highest rates of malnutrition. Survey data indicate a higher prevalence of underweight individuals as stunted growth in the rural areas, both indicators of chronic malnutrition. However, wasting is significantly more prevalent in the urban areas, indicating current poor nutritional status.¹²²

¹²¹ MFNP, *Zambia Poverty Reduction Strategy Paper 2002-2004*, p.118.

¹²² Mustafa Koc, et. al, *For Hunger-Proof Cities: Sustainable Urban Food System* (Ottawa: International Development Research Center,1999), p. 68.

This malnutrition becomes a handicap to child development, education and health sectors. To mothers and fathers who are malnourished, they become powerless and unable to provide for the needs of their children and hence poverty becomes chronic in those families. In other words, malnutrition leads to lowered resistance/immunization of the body and as a result, many poor become vulnerable to all diseases.

The second effect is related to the pollution of water in different places in Zambia. For example, the survey shows that "water poverty is one of the major dimensions of overall poverty in the Northern Province...all districts in the province, with the exception of Kasama, suffer from conspicuous deprivation of safe water for well over three fourths of its populations."¹²³ The pollution of water has a strong impact on the lives of many people and the most affected are children and mothers. Due to lack of pure drinking water, there is an increasing level of infant mortality because of the outbreak of cholera, typhoid, and other diarrheal diseases caused by worms. Beyond that women spend more time collecting water than in concentrating on the other businesses/activities that could promote the wellbeing of the entire family and society.

Thirdly, I would argue that malaria is claiming the lives of many people who could help in the fight against poverty. As it has been said:

Malaria is a disease of poverty. Each year it causes about 300 million acute illnesses and more than 1 million deaths, with 90% of cases occurring in poor African countries. In tropical regions of sub-Sahara Africa, it accounts for a fourth of all child deaths. Malaria attacks have caused about a third of primary school children in the region to miss school, some several times.¹²⁴

Malaria is also related to the environmental crisis and poor countries like Zambia have an enormous problem in controlling it through the provision of mosquito nets, and pre-treated nets. Due to economic hardship people are unable to buy those mosquitos nets or to spray the places where mosquitos may breed, such as in the dirty water, riverbanks or in the bush near their houses. Yet through a lack of control of mosquitoes, many insect-borne diseases such as dengue fever, Lymphatic filariasis, Yellow fever, Sleeping sickness (caused by tsetse fly), Leishmaniasis and Chagas diseases have killed many people and a

¹²³ Venkatesh Seshamani, 'Social infrastructures in Northern Province of Zambia,' in *Jesuit Centre for Theological Reflection, Bulletin 52* (Fourth Quarter 2002), p.30.

¹²⁴ UNDP, 'UNDP Poverty Report 2000', 21st August 2003.
< <http://www.undp.org/povertyreport/chapters/chap9.html>>

lot of money has been spent on medicines.¹²⁵ It is revealed that in Zambia, the incidence of malaria has reached a very high level as indicated in a survey of 1995 showing that to those who went to hospitals and clinics 33% of the people suffered from malaria.¹²⁶ As a result many farmers and active people who would contribute to poverty eradication have lost their lives due to these diseases.

5.5 Conclusion

To summarize: Unless the trend is changed, the ignorance of the relationship between poverty and the ecological crisis will lead us to a catastrophic situation that we will not overcome. Thus, in my view, the degradation of those natural resources will cut short the sustainability of our society. This means that the next generation will start life in an unsustainable community. Likewise, there is a need to re-think the relationship between poverty and the environmental degradation in the Zambian perspective and avoid all causes of the earth crisis that we analyzed in chapter four. As it has been considered by Roland Lesseps:

...The poverty of peoples and environment degradation go hand and hand. Those forces (sinful social structures) that contribute to poverty usually also lead to environmental degradation and vice versa. Any good ecological program will be socially just, and any good program of social justice will be environmentally sound".¹²⁷

This is a reality that we cannot run away from. Ignorance of it leads to increased impoverishment and further environmental degradation, especially in developing countries. Hence, an effort is needed to make policies and laws that protect the environment not at the expense of the poor, but policies that are made to eradicate poverty by considering both the poor and the environmental implications.

¹²⁵ Isabel Carter, "Fact files on Insect-borne Diseases" in *Footsteps* 33 (December 1997) pp10-13

¹²⁶ UNDP, 'UNDP Poverty Report 2000', 21st August 2003.

< <http://www.undp.org/povertyreport/chapters/chap9.html>>

¹²⁷ Roland Lesseps, S.J, 'Poverty Versus the Environment: A False Dichotomy,' in *Jesuit Centre for Theological Reflection, Bulletin* 53 (Third Quarter 2002), p.27.

CHAPTER SIX:
**THEOLOGICAL AND THEORETICAL RESOURCES FOR ZAMBIAN
 CHRISTIANS IN ADDRESSING THE ECOLOGICAL CRISIS**

6.0 Introduction

Chapter five has analyzed how the environmental crisis and poverty crisis are interconnected. It has concluded by advising all stakeholders engaged in poverty eradication to consider including strong policies that protect the environment if we are to win this battle of poverty eradication.

The important question that remains in my mind as a Christian and theologian is this: As Christians if we are to be involved, what resources do we have at our disposal in order to make a difference in this deteriorating world? Before responding to this question, Celia Deane-Drummond in her book, *A Handbook in Theology and Ecology* reminds us that: "One of the tasks of contemporary theology is to remind us of our connectedness with the earth and the interdependence between material existence and human life".¹²⁸ Having this in mind, this chapter will underline our reflections on biblical teaching, Christian theological perspective about the creation, the traditional and cultural belief, as guiding resources.

6.1 Biblical and theological teaching

To begin with, "Does the Bible contain enough resources to help us understand why Christians should be involved in caring for the earth and everything in it?" According to Fred Vandyke in his book, *Redeeming Creation*:

The Bible provides clear and principled instruction, with compelling vision, of what God's creation means to him and what it ought to mean to us... Personally and corporately, individuals and as communities, Christians will add significant dimensions to their life and witness in the world as they discover both the joy and service involved in God's plan for a redeemed creation¹²⁹

¹²⁸ Celia Deane-Drummond, *A Handbook in Theology and Ecology*, p.138.

¹²⁹ Fred Vandyke. et.al. *Redeeming Creation: The Biblical Basis of Environmental Stewardship*. (Illinois: Inter Varsity Press, 1996), p. 14.

I concur with the above scholar. Christians have fundamental biblical principles to motivate them to care for and maintain a good relationship with the rest of creation. The Bible gives a picture of God who cares for his creation and who wants harmony among his creatures. The Creator is motivated by his unfailing love to redeem all creation. The earth and all its creatures are intimately interwoven with God's loving care for humanity. The scope of biblical reflection on ecology is thus broadened from a narrow preoccupation with texts dealing explicitly with creation, to God's redemptive love for the world as a whole.¹³⁰ Therefore, the Free Methodist church in Zambia could base its biblical teaching on this bare-boned ecological theology of truth that every Christian is called to love God and the rest of creation as a response to our act of worship and witnessing to God's love for the world.

6.1.1 God as creator and sustainer of all things

Genesis 1–2 reveals to us that God is the creator of everything. He is the owner of the heaven and earth and every thing in them. By way of examples, the psalmist makes it clear that “The earth is the Lord's and everything in it, the world, and all who live in it.” (Psalms 24: 1). Similarly, the writer of Hebrews also confirms this truth by saying that: “By faith we understand that the universe was formed by God's command.” (Hebrews 11:3). Above all, the climax of chapters one and two is that human beings, as one of the creatures, is privileged to become the crown of creation and given authority to dominate all creation (Genesis 1:28-30).

In strengthening the above biblical point of view of our interrelationship with creation and Creator, Berry expresses it as follows:

The Bible is unequivocal in stating that the world belongs to God (Ps.24:1) but that he has delegated its care and protection to us (Ps.115: 16). We have no license to plunder creation, but we have a charge to care for the cosmos that God loves (John 3:16) and that Christ has redeemed (Col. 1: 20). We are not asked to look after a world that is only a “thing”; we are required to be God's agents in managing a world that he created, redeemed and sustains.¹³¹

¹³⁰ Ernst Conradie and David Field, *A Rainbow Over the Land*, p.47.

¹³¹ R.J Berry, 'One Lord, One World: The Evangelism of Environmental Care' in Brandt, Don (ed.) *God's Stewards: The Role of Christians in Creation Care* (Monrovia: World Vision, 2002), p.21.

As the Bible puts it “The earth is for the Lord, and everything in it. The world and all its people belong to him” (Psalm 24:1). This is a reminder that we do not own this earth or anything in it; we are just caretakers. Therefore, we are required to guard God’s properties with respect and faithfulness. If we claim to own anything we should remember, “ ...any right to private property must be circumscribed by this recognition of God’s fundamental ownership of all things.”¹³²

Accordingly, the biblical teaching does not only give this theological insight of awareness of God as owner and creator of the earth, but also the Gospels and Epistles motivate us to be involved in caring for other creatures. The following are some examples: First, the two great commandments (Mark 12:29-31) remind us that we cannot love God with all our heart and hate the rest of creation, which belongs to God. Neglecting the earth that our God cares for, sustains, protects, and loves is also a rebellion against our creator. At the same time loving our neighbor means associating and entering into communion with the rest of creation and this is what our God requires from us; that we do what is good, act justly, love mercy, and bring hope to this hopeless world.

Second, there is an evangelistic motivation behind our involvement in environmental care. “For the truth about God is known to them instinctively, God has put this knowledge in their hearts. From the time the world was created, people have seen the earth and sky and all that God made. They can clearly see his invisible qualities-his eternal power and divine nature. So they have no excuse whatsoever for not knowing God”(Romans 1:19-20). This is general revelation in biblical terms. God reveals himself through his divine nature. Through nature we learn about his intelligence, power, love, forgiveness, and provision and God’s care (Mat.6: 25-34).

This evangelical motivation teaches Christians that they have the responsibility to use natural resources according to God’s desire and intended purpose for creation.

¹³² SACC (South African Council of Churches), ‘This is God’s Earth,’ *New South Africa Outlook* (Autumn 2003), p.10. It was adopted by the South African Council of Churches and Church Representatives 10 June 2002 in preparation for the World Summit on Sustainable Development (WSSD).

This second motivation ought to lead Christians to leave the exploitation of natural resources, which leads to the extermination of some species.

For example, if trees are cut for fuel people should put down measures to plant other trees and maintain remaining ones that sustain our soil from erosion. Working against this evangelical motivation is also being against God's revelation to his people. It is also to deprive future generations access to recognize God's wonderful work through the rest of creation because we would have exterminated wonderful trees and other species.¹³³

The church has the power to reverse this situation of the earth crisis and save it from natural disasters by making the earth a garden of peace, beauty and harmony. It can be an evangelistic teaching aid again in which our children will be able to recognize God's revelation rather than referring to it as the world of trouble and calamities or as the "groaning earth" (Genesis 3:19-21 or Romans 8:20). This depends on humankind who would value and accept or concur with Lawrence Osborn who states that, "every part of creation has the potential to become a medium through which God can speak to us and meet with us".¹³⁴ This valuing of the rest of creation as a means of God's revelation could motivate Christians to protect ecological systems and lead to the protection of this earth and God's marvelous acts.

What should we do in order to maintain this truth in which the heavens tell of the glory of God and the skies display his marvelous craftsmanship (cf. Ps.19: 1)? In being involved in environmental care the church proclaims God's news of the redemption of the whole of creation, and the church seeks to be part and parcel of God's mission here on earth.

Is there any hope for creation to be liberated from complaining? The answer is that human beings and all creation wait and anticipate the day of the coming of our Lord so that all tears and groaning have their end (cf. Romans 8). This leads us to the gospel of the liberation that lies behind the eschatological teaching that the Bible revealed to us as the third motivation to care for this God's earth. In a similar vein, David N. Field again makes the point more clear that the church is motivated by this Gospel of anticipating a

¹³³ Lawrence Osborn, *Guardians of Creation: Nature in Theology and the Christian life* (Leicester: Apollos, 1993), p.151.

¹³⁴ Lawrence Osborn, *Guardians of Creation: Nature in Theology and the Christian life*, p. 156.

liberation of all creation (human and non-human) in the eschatological worship of all. According to him,

...Inspired by the Spirit the church participates with creation in its eager longing of its liberation as the church looks forwards to the resurrection. By the spirit of the worship of the community is a [prophetic] participation in the eschatological worship of the entire creation. Thus in worship it is drawn into greater solidarity with other –kind, in anticipation of the alienation between them will be overcome.¹³⁵

6. 1.2 Ecological understanding of dominion based on Genesis 1:28

Genesis 1, especially verse 28, among many other biblical texts, reveals that we are given a dominion over other creatures. But a question must be asked: “What does it biblically and theologically mean to have dominion over all creation?” The understanding of dominion helps us to carry on and fulfil our purpose of existence in this earth in a healthy manner. The Bible is relevant to this issue of domination. It is very clear that the rest of creation should not be subjected to exploitation and abuse by humankind. The rest of creation is not there to satisfy human being’s desire, greed, and selfishness. Conversely, as Steven Bouma-Prediger quotes philosopher Tom Regan, human uniqueness from all creatures means:

...that we are expressly chosen by God to be God’s vicegerents in our day-to-day affairs of the world; we are chosen by God, that is, to be as loving in our first place. In this sense, therefore, there is a morally relevant difference between human beings and every other creaturely expression of God. For it is only members of the human species who are given the awesome freedom and responsibility to be God’s representatives within creation. And it is therefore, only we humans who can be held morally blameworthy when we fail to do this, and morally praiseworthy when we succeed.¹³⁶

Therefore, what does it mean to have dominion over all creation? The next point goes into detail. In order to understand this domination expressed in Genesis 1: 28 let us refer to these six important contexts for dominion.

¹³⁵ David N. Field, ‘The Gospel, The Church and The Earth: Reflection on an Ecclesiology,’ in *The Journal of Theology for Southern Africa* 111(Novemeber 2001), p.75.

¹³⁶ Steven Bouma-Prediger, *For the beauty of the Earth*, p.123.

6.1.2.1 *Dominion and love of our neighbor*

To begin with, Ezekiel chapter 34 refers to God as the good Shepherd. This chapter contrasts bad shepherds who rule harshly and brutally. God is portrayed as a caring shepherd. The Hebrew word used is “*redah*” which may mean ruling with care and love. “We can see that ‘dominion’ or ‘rule’ did not imply a cruel, heartless dominion, but the loving and caring relationship of the shepherd to his sheep.”¹³⁷ This caring and loving heart of the good Shepherd who is God, is also expressed in John 3:16, “For God so loved the world.” All these teach that the biblical dominion or ruling is based on sacrificial love rather than a cruel leadership. Our dominion over all creation ought to be a loving one that cares for and does not destroy this earth and everything in it.

6.1.2.2. *Dominion with commonality*

We are part of creation. There is a commonality of humankind and nature because we are created from the dust (Gen.2: 7). The earth and heaven and everything in them are related to us, as we are one of them. We are a part of the ground, and in the time of death we come back in it¹³⁸. Thus at each funeral we are reminded that there is a real interlinking between humankind and the environment. In fact, as John Drane comments:

“Humankind is created from the dust of the earth emphasizing that people are directly related to the environment, and in spite of their status, they are themselves an intrinsic part of nature”.¹³⁹ In addition, I would agree with Gnanakan that:

There is no blue blood that divides royalty from common folk. Rightly, in the English language, we are referred to as ‘earthlings’. Dominion, seen within this context of commonality, takes on a healthy perspective: a responsibility for others with common rights.¹⁴⁰

In short, we differ with the rest of creation because we have that wonderful ability to build our relationship with God the Father, Son and Holy Spirit, fellow human beings as well as the rest of creation as our God does. In other words if we do not mind the

¹³⁷ Ken Gnanakan, *God's World*, p. 54. Hebrew words used in this chapter are from this book, particularly in chapter five entitled “Dominion or Domination” pp51-59

¹³⁸ In time of burial of the dead, we are always reminded that every mortal body is committed to the ground where it comes from.

¹³⁹ John, Drane, “Defining A Biblical Theology of Creation “ in *Transformation* 10:2 (April/June 1993) 7-

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¹⁴⁰ Ken Gnanakan, *God's World*, p. 54.

destruction of the ecological system we are less than inhabitants because we are not acting in God's image.

This means that the dominion with commonality refers also to interconnectedness between humankind and rest of creation. The sustainability of the environment depends on the relationship between God, humankind, and nature. The earth suffers from humankind's rebellion against God.¹⁴¹ ¹⁴² The fact is that the death of the earth is our death. We cannot survive without it. The restoration of our relationship with the earth and everything in it is a crucial reality that we cannot afford to ignore. As a result, there is a need to revisit our ecological theology. As Weaver comments: "We need a theology for earthkeeping, which is holistic and not dualistic-separating out human beings as above the rest of the world; that has regard to God's eminence as well as his transcendence; and that is relational, recognizing the Trinitarian God of creation."¹⁴³

6.1.2.3 Dominion with creativity

Genesis 1: 28 is associated with responsibility rather than the destructive and cruel activities that people have been demonstrating in exploiting this earth. "In the image of God, responsibility alongside God's creativity transforms authority into positive and productive expressions. Rather than destruction, there is the desire to bring something good even from the worst"¹⁴⁴ This means that biblically, it is not too late to transform this polluted world into a beautiful garden in which every creature breathes fresh air and drinks pure water. There is still a chance to create an atmosphere where there is equity in the distribution of natural resources and meeting the basic needs of every creature as God intended.

God did not create us for starving but for blessing and prosperity. "I know the plans I have for you, says the Lord. 'They are plans for good and not for disaster, to give you a

¹⁴¹ Genesis 4:12 "When you work the ground, it will no longer yield its crops for you"

¹⁴² Genesis 6:11-13 "...now the earth was corrupt in God's sight and was full of violence. God saw how corrupt the earth had become, for all the people on earth had corrupted their ways. So God said to Noah, "I am going to put an end to all people, for the earth is filled with violence because of them. I am surely going to destroy both them and the earth"

¹⁴³ John Weaver, *Earthshaping Earthkeeping: A Doctrine of Creation*. (London: Lynx, 1999) p.129.

¹⁴⁴ Gnanakan, *God's World*, p.54.

future and a hope” (Jer.29: 11). This promise is for all creatures. It is even extended to outcasts such as the refugees who live in exile. God entrusts his world as a property to men and women; the earth contained everything human beings needed to survive and God has given us different gifts and talents so that we may explore and not exploit all of the earth’s resources.¹⁴⁵ We are mandated to apply biblical principles as Christians, as moral ethics in our involvement in re-creation rather than taking this potential of re-creation to rape this earth and uproot everything good in it. In summary, our creativity will be judged:

We will be judged by future generations for our care of this planet. Every human effort needs to be critiqued as to whether it ensures the fertility of the soil, the purity of the water sources and watershed areas, the protection of wild lands and plants, and social justice. In a word, every effort needs to be examined as to whether it contributes to environmentally sustainable development.¹⁴⁶

6.1.2.4. Dominion with stewardship

In reading Genesis 1:28, dominion is also viewed in the spirit of a stewardship. It is from the Hebrew word “*shamar*” translated as “Keep”. Its noun is “steward” or “trustees”. These nouns go deeper to refer to caring for or preservation of the earth. According to John Weaver, this verse has enough teaching to remind human beings that:

Stewardship implies caring management, not self-exploitation; and it involves a concern for present and future as well as self; and recognition that the world in which we live has an interest in its own survival and well being independent of its value to human beings.¹⁴⁷

Humankind should learn to differentiate stewardship and ownership. We are not landlords of this world and the rest of creation. Our God is still in control of His earth and everything in it. He is dwelling in this land with full control.¹⁴⁸ Therefore, we ought to be caretakers with biblical stewardship attitudes as in George S. Johnson’s words:

The biblical understanding of stewardship implies accountability and participation. To move beyond guilt and powerlessness, we need to move from mastery, control and ownership attitudes to an attitude of stewardship toward all of life. This means becoming caretakers of creation with a sense of identification and partnership, rather than dominion and exploitation. To be a steward of

¹⁴⁵ Gnanakan, *God’s World*, p. 54.

¹⁴⁶ Nancy G. Wright and Donald Kill, *Ecological Healing Christian Vision* (Maryknoll, New York :Orbis Books, 1993), p. 127.

¹⁴⁷ Weaver, *Earthshaping Earthkeeping: A Doctrine of Creation*, p. 127.

¹⁴⁸ Weaver, *Earthshaping Earthkeeping: A Doctrine of Creation*, p. 128.

creation is to embrace the world, to love the world as Christ did, and to be willing to sacrifice for the world rather than escape from the world.¹⁴⁹

6.1.2.5 Dominion with justice, restoration of peace and sustainability

Justice, peace and sustainability of all creation cannot exist if people do not recognize the sovereign control of God. In a similar vein, Sean McDonagh in his book *Greening of the Church* states "Respect for Yahweh's sovereignty, care for the earth, concern for the poor, sensitivity to the needs of both wild and farm animals, all come together in Ex.23: 10-12"¹⁵⁰. A wide range of biblical teaching from the Old Testament and New Testament refers to justice for the ecology system.

For this reason, responsible dominion leads to justice and peace as the means of the sustainability of all life on the earth. For instance, jubilee and the Sabbatical year refer to justice for the land and the rest of creation. However, humankind's greed and selfishness have led to the exploitation of other creatures including fellow humans. The uneven distribution, control, and use of natural resources are serious justice issues; and rapid depletion of non-renewable natural resources raises the question of our responsibility to future generations.¹⁵¹ People do not need development programmes that undermine, pollute, and exploit their present means of survival and the one for their future children. Instead, as Yearley quoted this famous definition of the Brundtland Commission, "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs".¹⁵²

Don Brandt carries on to express this same view that, "Recognition of the connection between the environmental crisis, social injustice, and human sinfulness is a central

¹⁴⁹ G.S. Johnson, *Beyond Guilt: Christian Response to Suffering* (Cambridge: Adventure Publications, 2000), p. 118.

¹⁵⁰ Sean McDonagh quoted in John Weaver, *Earthshaping Earthkeeping: A Doctrine of Creation*. (London: Lynx) p 125

¹⁵¹ Weaver, *Earthshaping Earthkeeping: A Doctrine of Creation*, p. 129.

¹⁵² Yearley, *Sociology, Environmentalism, Globalization*, p. 131.

The sustainable development defined above contains two key concepts:

- The concept of 'needs', in particular the essential needs of the world's poor, to which overriding priority should be given; and
- The idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.

theological and ethical insight. The cultivation of a passion for justice is correlatively an essential feature of an ecology ethic.”¹⁵³

In addition, I agree with Paul Haffner in his article “A Christian Ecology” when he points out that, “An adequate theology of the environment therefore involves God, the human person and nature; thus problems concerning the environment cannot be resolved in purely social- political terms.”¹⁵⁴ Christians have a special and unique solution to the environmental crisis based on their belief. Hence, religious power, economic power, political power as well as military power must join their efforts to care for the environment and build up a sustainable society, which is the home of every creature. Sustainability of future generations depends on seeking and maintaining principles of global justice as well as ecological responsibility to development.¹⁵⁵

6.1.2.6 Dominion with the dignity of labour and the Sabbath

The Genesis account reminds us that work is not a curse but a blessing. It is through work that we gain our honor, dignity and respect. Work should be respected and encouraged. One of the causes of poverty is unemployment that also leads to environmental degradation. The church has a duty to create jobs with jobless people, as labour is an important aspect for humanization. It is work that nurtures this earth, and us humans. If we do not abuse our creativity in nurturing this earth, it will be much better than before. In addition, our skills, talents and gifts are tools to care for, support, sustain and protect this earth rather than to destroy it. I would agree with Steve de Gruchy that, “The skills that we need to get...are not those of mastering the earth, but those of nurturing the earth community”¹⁵⁶

¹⁵³ Don Brandt, *God's Stewards*, p. 46.

¹⁵⁴ Haffner, ‘A Christian Ecology,’ in Robert Whelan, Joseph Kirwan and Paul Haffner, *The Cross and the rain Forest: A critique of Radical Green Spirituality*. (Eerdmans, Grand Rapids, 1996), p. 126.

¹⁵⁵ Celia Deane-Drummond, *A Handbook in Theology and Ecology*, p. 135.

¹⁵⁶ Steve de Gruchy. ‘Aids, Earth and Sabbath: Theology in Search of Work. A critical postscript to the contributions in this Bulletin,’ In *Bulletin Contextual Theology in Africa* 6:3 (September 1999), p. 57.

6.1.3 Redemptive work of Christ against the persistence of sin

Due to sin, the earth is subjected to different kinds of crises. Sinful humankind is also subjected to cultural degradation as we persist in sinning. The church's contribution is to fight against sinful acts that lead to environmental degradations such as poverty, injustice, lack of freedom, inequality, and the poor distribution of national wealth, greed, and self-centered developmental programmes. As South Africa Church leaders affirm, "As Christians, we realize that any development which does not address a culture of sin is bound to fail because it is subjected to vandalism, abuse, violence and destruction."¹⁵⁷

Sin does not only destroy our relationship with God but it also affects our link with the whole of creation. The earth crisis is a result of our broken relationship with God.

God made and appointed us to be stewards, managers, agents and caretakers. By our disobedience, we have not only removed ourselves from fellowship with and support by our Creator, but also condemned all the rest of creation into a state of disorder and consequent inability to fulfil its role (Ps.19, Ps.148).¹⁵⁸ Through sin our relationship with other people is broken, hence, we are living in a world of conflicts, which result in the destruction of our lives and environment. The biblical records remind us that it was due to the consequence of God's judgements that the earth suffered many times (Isaiah 24:1-6, Hosea 4:1-3).

Henri Blocher carries on to say that, "If man [humankind] obeys God he would be the means of blessing the earth, but in his insatiable greed ... and in his shortsighted selfishness, he polluted and destroys it. He turns a garden into a desert (cf. Rev. 11:18). That is the main thrust of the curse of Genesis 3."¹⁵⁹ This means, because of the power of sinful nature, we are no longer able to fulfil our responsibility as faithful caretakers or good stewards because the nature of sin in us leads to destruction and exploitation for the rest of creation.

¹⁵⁷ SACC (South African Council of Churches), 'This is God's Earth', p. 10.

¹⁵⁸ R.J. Berry, 'One Lord, One World,' p. 25.

Contrarily, the Bible has good news of salvation and redemption of all creation.

If our news is truly good, furthermore, we must acknowledge that our work as earthkeeping witness to God's kingdom is grounded in Christ's own work. ...Christ's work is as wide as creation itself. It is nothing short of restoration and consummation of all creation.... Jesus comes to save not just us but the whole world. Thus, our work is to be patterned after Christ's reconciliation reign as cosmic Lord. This salvation of all things, accomplished on the cross, is vindicated in the resurrection. The resurrection pertains not only to people, it embraces the earth.¹⁶⁰

Christians are in the community with this good news that even though sin separates us from God and we become hostile to the rest of creation; through Jesus Christ we are reconciled back to our Creator and non-human. For this reason, I agree with Field when he argues that, "By his resurrection Christ became the beginning and source of the new creation. He is thus supreme in the reconciled creation"¹⁶¹ This reconciliation ministry does not only bring salvation and redemption to humankind but to all creation.

However, the church is much focused on reconciling human beings to the Creator but less emphasis is put on mediating human beings to the rest of creation. Therefore, I would agree with Ernest Lucas' argument:

Surely the work of the reconciliation should also involve reconciling humans to the non-human creation, by working to bring people to exercise the dominion we do have over creation in the way were intended to exercise it. This is a way that reflects the nature of God –with wisdom, justice and love... A wider view of the church's 'ministry of reconciliation' would extend this to the healing of the 'wounds', which humans have inflicted on the non-human creation.¹⁶²

The healing of the earth is our healing, because we are affected and infected by the "wounds" this earth is suffering from.

6.2 Traditional belief and culture

It is very important to realize that our traditional belief and culture are very crucial in tackling the environmental crisis, hence responding to poverty in our community.

¹⁵⁹ Henri Blocher, *In the Beginning* (Leicester: Inter-Varsity Press, 1984), p. 184.

¹⁶⁰ Steven Bouma-Prediger, *For the beauty of the Earth*, p. 124.

¹⁶¹ David N. Field, 'The Gospel, the Church and the Earth: Reflection on an Ecological Ecclesiology,' p. 72.

¹⁶² Ernest Lucas, 'The NT teaching on the environment,' in *Transformation* 16:3 (July/September 1999), p. 98.

The Zambian traditional beliefs, and in Africa at large, teach us that nature is sacred. I agree with this truth that, "In the culture and spirituality of indigenous populations, land is seen as the basis of every value and as the unifying factor that nourishes their identity".¹⁶³ For example, this poem of the Lozi (Zambian from Western Province) people can deeply express this pride of owning land and protecting it:

Bulozi fasi labondataluna
 Hala mafisi lelinde kilona
 Kimolupepezwi, Kimoluhulezi milwalilata
 Bulozi land of our forefathers
 among all the land ours is the best
 we are born and we grow up on this beautiful land¹⁶⁴

They are identified with land and the rest of creation. People are aware that in order to survive they must sustain their environment, which does not only belong to them but to their ancestors and the future generation. Their belief and culture dictate that any harm to nature does not only affect them but it disturbs even their forefathers and this can bring more harm to their community and curses to their children. The truth of the matter is that; "traditional African wisdom holds the environment sacred. It believes that the environment has the potential ability to sustain human beings adequately, if they in turn care for the environment."¹⁶⁵

We are facing a serious environmental crisis as a result of a cultural crisis. Humanity has failed to maintain its relationship with the rest of creation. People's minds are alienated to that such a degree that they forget that their existence depends on the care of the rest of creation. Therefore, I would agree with Ernst Conradie that:

The crisis is that we have to face is not primarily an ecological but a cultural crisis. The problem lies not outside but inside us, not in the ecosystem but in the human heart, in the collective psyche. What is required is a fundamental change of orientation, in Christian terms a metanoia.¹⁶⁶

¹⁶³ Pontifical Council for Justice and Peace, *Towards a Better Distribution of Land: The challenge of Agrarian Reform* (Nairobi: Pauline Publications Africa, 1998), p. 14.

¹⁶⁴ African Development Education Network, *Caring for Africa*, p. 82.

¹⁶⁵ African Development Education Network, *Caring for Africa*, p. 85.

¹⁶⁶ Conradie, 'How can we help to raise an environmental awareness in the South African context?', *Scriptura* 82(2003), p. 132.

Because the problem lies inside our heart, the solution to the environmental crisis cannot be offered by new science, technologies, and political power, without involving religious and cultural power.

We need first to recognize that indigenous people have good knowledge about environmental care. This knowledge has been passed on from one generation to another generation. They have been utilizing this knowledge in managing their environment. Therefore, it should be encouraged. This is the environment that has been sustaining them. In conclusion I would like to hold on to this truth:

As human beings we are capable of renewing our environment with our intelligence and creativity despite the difficult problems and pressure on us to live better. This can effectively be done through the promotion of our cultural heritage [that support environmental care]. Our culture can serve as an effective medium of environmental education and information. However, in order to fully include culture in environmental development, we need to also look at decision-making and politics related to the environment.¹⁶⁷

However, in case there is a cultural crisis, the gospel becomes one of the major answers for redemption of that culture and the ecological system of that community. It is through our gospel of redemption that people's hearts will be brought back to their Creator and they will also respect the rest of creation.

6.3 Conclusion

And the angel showed me a pure river of life, clear as crystal, flowing from the throne of God and of the Lamb, coursing down the center of the main street. On each side of the river grew a tree of life, bearing twelve crops of fruit, with a fresh crop each month. The leaves were used for medicine to heal the nation. (Revelation 22:1-2 –cf. also Ezek.47: 12)

The goodness of creation that we read throughout the Bible from Genesis to Revelation shows that there is a strong connection between the biblical/theological teaching and ecological vision. The ecological healing should be a Christian vision if we need to reconcile with our Creator. I am of the opinion that if preachers of the Word and the theologians use the Bible in the right way maybe it would be a good tool that could help

¹⁶⁷ African Development Education Network, *Caring for Africa*, p. 85.

Christians to address the issue of the ecological crisis positively. In reference to Genesis 1 and 2, and with focus on Gen.1: 28-30, God had a clear mission to create all things. For that matter, humankind's rule over creation has limitations, it has to fit God's mission- "The imago Dei Vision".

The imago Dei, thus means that nature's welfare is dependent on humanity, just as it (which includes humanity) is obviously dependent upon God. It cannot mean a geocentricity of pantheistic harmony, or an anthropocentricity which sees all for the benefit of humanity, but a theocentricity which sees the existence of all in the world for the glory of God, and the duty of humanity such as to deal with the world as to increase that glory.¹⁶⁸

Hence, based on biblical and theological inspirations that we have in chapter six, I dedicate chapter seven to practical strategies that can help the church to tackle the two big challenges that she is facing: Poverty and the earth crisis.

¹⁶⁸ D.T William, *Christian Approaches to Poverty*. (New York: Authors Choice Press, 2001), p.71.

CHAPTER SEVEN:

CHURCH STRATEGIES AND PRACTICAL CONTRIBUTION TO EARTH DEGRADATION

7.0 Introduction

The previous chapter has heightened and suggested some biblical, theological resources as well as the cultural beliefs that are helpful in understanding our biblical mandate to care for this earth. This chapter suggests different strategies and practical means that we can adopt in responding to the earth crisis. Firstly, our approach to development should be a holistic one. Secondly, our theological and biblical insights ought to make a difference in our involvement in environmental care. This means that our visible actions towards ecological care will preach more than our words. The third, and last point is about Christian involvement in ecological care awareness.

7.1. Holistic approach to Christian development

A holistic approach to Christian development is built on the principle of meeting the whole person's needs. Beyond that, this is a positive attitude that treats nature and humans as one community of God. Bruce Bradshaw observes that:

Holism does not see non-human life or inanimate matter participating in salvation as people participate in it, but it seeks to restore the harmony of creation that reflects the glory of God. To this extent, distinctions between evangelism and development, or physical and spiritual aspects of creation, are detrimental to our understanding and fulfilling the call of Christian to ministry. The visible, physical aspects of creation as well as the invisible, spiritual aspects must be harmonized to the abundant life we have in Christ¹⁶⁹

From this point, one could understand that human beings and the rest of creation are related. They constitute a common community. If one brings harm to humans it affects non-humans and vice-versa. Therefore, it is wrong to be involved in a transformation mission and neglect to look into all matters that affect human beings. In fact Warmback argues that sustainable development cannot take place until there is integrity of creation.

¹⁶⁹ Bruce Bradshaw, *Bridging the Gap*, p.16.

There needs to be an integrated approach to development. For it is in attaining a holistic perspective that the prospects for sustainability and sustainable development may be most easily realized. Development cannot be seen in isolation from the relationships people have with one another and with the rest of the environment. The extent of the harmony of relationships in society affects the nature of the development that can take place.¹⁷⁰

The idea is not only to meet human needs at this present time but also to meet the whole person and the rest of creation. This calls upon the church to become involved in development programmes that recognize this integrity of creation. As Deepa Narayan airs out the voice of the poor, she also reminds us that even the definition of well-being is holistic and therefore, to answer this problem of the poverty crisis one should also develop a holistic approach which will meet the needs of the whole person. She sums up this view in this statement:

Poor people's definitions of well-being are holistic. That is, the good life is seen as multidimensional, with both material and psychological dimensions. It includes a dependable livelihood, peace of mind, good health, and belonging to a community. It encompasses safety; freedom of choice and action; food; and care of family and spirit. It is life with dignity.¹⁷¹

This holistic definition of well-being seems to respond to the definition of poverty in the Zambian context that we have seen in chapter two. Living life with dignity and freedom is a positive approach that Christians could propagate. The church has not only a message of freedom from sin, but also a message to proclaim the freedom to enjoy our *raison d'être* as God intended in creation. This means that the holistic approach to sustainable development would mean sustainability in the community of the poor. This is possible if the poor people are enabled to enhance and enjoy these five distinct types of instrumental freedoms advocated by Sen Amartya in his book, *Development As Freedom*, such as: political freedoms, economic facilities, social opportunities, transparency guarantees, and protective security. Indeed, the interconnection of these instrumental freedoms is what can make a poor person regain his/her integrity and dignity. Poor people enhance their capabilities, which were undermined by lack of freedom.¹⁷²

¹⁷⁰ Andrew Warmback, 'The Earth is God's and all that is in it: Development from perspective of the environment,' p. 85.

¹⁷¹ Deepa Narayan, "Voices of the poor" in Belshaw D, and Robert Calderisi, Chris Sugden (Eds.) *Faith in Development: Partnership Between the World Bank and the Churches of Africa* (Oxford: World Bank and Regnum Books International, 2001), p. 40.

¹⁷² Amartya Sen, *Development As Freedom* (New York: Anchor Books, 1999), pp. 53-41.

People's participation in their well-being is what makes the whole definition of holistic ministry valuable. This is also impossible for people who do not have the freedom to participate. Unfortunately, the church has been preaching a message that leads people to "freedom from" but few ministers of the Gospel are going one step ahead and announcing this "freedom to". As a result, the Christian approach to development has not been holistic in the sense that it has not combined the means and ends of development itself. This is very important for we have to bring the good news to the whole person. By "means" and "ends" of development Sen Amartya means that:

The ends and means of development call for placing the perspective of freedom at the centre of the stage. The people have to be seen, in this perspective, as being actively involved-given the opportunity- in sharing their own destiny, and not just as passive recipients of the fruits of cunning development programmes. The state and the society have extensive roles in strengthening and safeguarding human capabilities. This is a supporting role, rather than one of ready-made delivery.¹⁷³

In my understanding, this is a beginning of healing this doomed earth. The holistic approach to development that encompasses freedom is the answer to a sustainable livelihood for the poor. I totally agree with Mary N. Getui, "Our livelihood depends on how well we manage our environment. If we maintain the environment, we live longer and have more progress, but if we abuse it we put our existence in jeopardy."¹⁷⁴

The holistic worldview calls Christians to consider the challenge of shalom-peace "Umutende" in Bemba (of the Zambian language) and "Amahoro" is the Kinyarwanda word for such 'Shalom'. As James E. Matzler states:

Throughout the biblical message, from Genesis to Revelation, [Shalom] term describes God's vision for His creation that the concept shalom: It is a fundamental and comprehensive term, used in every period of the history of God's people. The basic meaning of shalom is wholeness, which includes the ideas of unjuredness, totality or completeness, well-being, prosperity, harmony, and having a common will and a mutual responsibility. It is used as a companion word with-and sometimes a synonym for-the terms "blessing", "salvation", and "righteousness".¹⁷⁵

It is from this point of view that John Weaver realizes that the modern worldview has lost God's plan and vision for creation.

¹⁷³ Amartya Sen, *Development As Freedom*, p. 53.

¹⁷⁴ Mary N. Getui, 'Mission of the Church and Concern for the Environment,' p. 43.

¹⁷⁵ James E. Matzler, 'Shalom is Mission', in Robert L. Ramseyer (ed.), *The Mission and Peace Witness* (Scottsdale: Herald Press, 1979), p. 36.

In our modern world where economics rather than ecology controls our farming there may be good reason to listen to God's plan. The Old Testament concept of Shalom implies more than an absence of war; it involves a healthy creative relationship with God and other humans, and it must now include the well-being of all creation.¹⁷⁶

This world needs 'shalom' and it is a mandate for our survival. The message God gives to Christians in this holistic ministry is to proclaim and seek peace- "Umutende" for all creatures in this world. And when the Peace of God reigns we cannot expect the Earth crisis. This means that we cannot bank on a holistic vision and deny preaching the message of shalom to every creature. As we have noted above, this concept of 'Shalom' does not only mean an absence of wars, but it builds its meaning on the presence of "human welfare, health and well-being, in both spiritual and material aspects".¹⁷⁷ The poor Zambians need the freedom of health facilities, education, worship, possessions, and natural resources.

Therefore, the holistic worldview is an evangelism campaign that leads us to harmonize our relationship with the rest of creation. It means that we have to seek peace /shalom with everyone and everything. We are called to look into the well-being and welfare of all creation. This is how we can deal properly with this problem of the Earth crisis. Sjouke sums up this 'shalom' point of view, "It (Shalom) includes social justice: the protection of widows, orphans, and society's dependents; the struggle against exploitation and oppression, the protection of life and property."¹⁷⁸

Christians in Zambia are called to come together in this battle against any kind of exploitation of our natural resources, land, animals and forests. Christians in Africa need to embody this worldview because " the good news of wholeness and liberation that we share is personal, social, global and cosmic. So our holism needs to grow beyond justice for the poor to include care for creation."¹⁷⁹ We recognize that the growth gap between rich and poor is a big concern for us if the Church is to contribute towards the Earth

¹⁷⁶ John Weaver, *Earthshaping Earthkeeping*, p. 125.

¹⁷⁷ E.Maller Marlin, 'The Gospel of Peace,' in Robert L.Ramseyer (ed), *Mission and Peace Witness* (Scottsdale: Herald-Press, 1979), p. 3.

¹⁷⁸ Voolstra, Sjouke, 'The Search for a Biblical Peace Testimony,' in RobertL.Ramseyer (ed.) *Mission and Peace Witness* (Scottsdale: Herald Press, 1979) p.30.

¹⁷⁹ Ross, Langmead, , 'Faith and the Environment,' in *Grid 2* (2002), p. 2.

crisis. As a result, we have to empower the poor people so that in turn they improve their relationship with the environment.

Having discussed at length the holistic vision as the practical result of the theological and biblical teaching, I am convinced that our involvement in poverty eradication and earth care contains fundamental principles that every Christian should put into action. As Schaeffer sums up the fundamental truth:

It (Christianity) offers a balanced and healthy attitude to nature, arising from the truth of its creation by God. It offers the hope here and now of substantial healing in nature of the resurpects of the fall, arising from the truth of redemption in Christ. In earth of the alienation arising from the fall, Christians, individually and corporately, should in practice be a healing redemptive factor.¹⁸⁰

All Zambian Christians should be concerned about the Earth crisis and join our effort in responding to this Earth crisis. And I believe that we have some practical healing acts to offer to the environmental degradation.

7.2 Responding to global warming and destruction of the ozone shield

As Christians we are not spared from the consequences of this global warming and destruction of the earth's protective ozone shield. DeWitt summarizes this, saying:

Alternation of planetary energy exchange with the sun is bringing about global warming and destruction of the earth's protective ozone shield. We have been doing this by altering the concentration of greenhouse gases responsible for regulating the earth's temperature and adding ozone-depleting chemicals to the stratosphere, thereby reducing the capacity of the atmosphere to filter out damaging ultraviolet-B radiation. These activities are seriously threatening the earth at the fundamental planetary level.¹⁸¹

This destruction of the earth's protective ozone has serious consequences for people's health, and agricultural systems as well as to other non-humans. In Zambia we are already beginning to suffer the consequences of the destruction of the ozone shield. From 1991 Zambia been experiencing droughts that have had a big impact on water supplies, vegetation, crops, domestic livestock, fisheries and wildlife, and on the soil. This affects

¹⁸⁰ Francis Schaeffer, *Pollution and the Death of Man: The Christian View of Ecology* (Wheaton: Tyndale House, 1970), p. 79.

¹⁸¹ Calvin DeWitt, *Caring For Creation*, p. 17.

non-believe and Christians' health, education and social security¹⁸². Therefore, Christians should join other NGOs as well as the government in awareness campaigns and debates, which help people to realize their role in protecting the ozone shield. For example, Christians in Zambia can be involved actively in the methyl bromide¹⁸³ awareness campaign, which is going on amongst local farmers.

Christian farmers can be at the forefront of spreading out this awareness and they can put into practice what environmentalists are advising them to do in order to stop destruction of the ozone layer and its consequences to humans and non-humans. We are called to make a difference in the working or market place, as people who know our responsibility of caring for this earth. I agree with Ernest Conradie that:

a) Christians can make a difference where they live and where they work, and wherever they exercise some influence in society. b) Christians can co-operate with and support numerous existing environmental organizations. c) Local Christian communities can become ecologically conscious communities.¹⁸⁴ We can also learn how to use agricultural technology, which does not affect our existence or increase the levels of earth crisis.

7.3 Prevention of land degradation

The earth and everything in it is crying for social and economic justice. The land is suffering from the use of pesticides, herbicides and other chemicals that we are using in agriculture. Human beings are greatly and selfishly exploiting the land. The biblical jubilee that it used to give rest the land does no longer exist. As a result:

Today, earthworms no longer inhabit most farmland. Microscopic life of the soil has been severely altered. Birds have been diminished by the removal of fencerows and hedges that once separated the fields. The land never rests; the creatures are driven off. The homes of the diverse creatures of the prairies, grasslands, forest, and fields have become chemical deserts.¹⁸⁵

¹⁸² Mary Tiffen, "The impact of the 1991-1992 drought on the environment and people in Zambia" in Binns Tony. *People and Environment in Africa* (Chichester: John Wiley & Sons), pp. 115-128.

¹⁸³ See, Hanyana, 'Zambian Farmers Cry for Phase out of Ozone Depleting Substances,' p.13.

Methyl Bromide is used as a fumigant to control a wide rang of pests in soil before planting of certain economically important crops such as tomato, pepper, watermelon, flowers and tobacco seeds. Apart from being an Ozone Depleting Substance (ODS), Methyl Bromide also affects commodities such as grain, timber, wooden products, fruits and flowers and in limited cases buildings, vehicles and other structures.

¹⁸⁴ Conradie 'How can we help to raise an environmental awareness in the South African context?' p. 134.

¹⁸⁵ DeWitt, C.B. (ed.), 'Seven Degradations of Creation,' p. 16.

The biblical principal urges that the land should have a rest (Lev.25: 1; 26:14,32,35). It is our responsibility as Christians to demonstrate this in the agriculture sector. In agriculture we can work together with environmental councils to fight against open air burning which contributes greatly to the emission of carbon dioxide. I am of the opinion that, “the greatest contribution that one could make, and one for which the agricultural sector can be rewarded, would be to reduce the level of carbon dioxide emission by capturing the carbon in forests, and grasses and soil”.¹⁸⁶ When Kelvin Kachingwe advises this point to all farmers, Christians are not excluded. In fact, they could be an example to the community to put into practice this advice, as they know that they are serving themselves and their community and are also being loyal to God.

This means that we can be involved in reducing the level of carbon dioxide emission by planting more trees, and advising those who burn charcoal to follow environmental advice. For example in the Zambian context, the culture of Chitemeni-the system of cutting the trees and burning them as means of fertilizing the soil can be discouraged by Christians who are involved in agriculture, by using cleaner agricultural technology that supports environmental care. The alternative for farmers would be using animal dung rather than using ashes as compost.

7.4 Fighting against deforestation

Many trees are cut down for shelters, firewood, charcoal, or other forms of energy. The trees are used in traditional healing rituals. It is impossible to live in Zambia without using and cutting trees. However, as far as I am concerned, the problem is not the cutting down of trees; the problem is that we do not replace those trees that we cut. In Rwanda there is a slogan, which says “*Nutema kimwe ujye utera bibili*” which means that if one cuts one tree he/she should plant two. With this ideology we would not experience deforestation in Zambia, as more trees would be planted. Christians should encourage people to plant trees of all kinds and to fight against burning in open air spaces. As portrayed by Byaruhanga Karungi in his view about “The Church’s role in environmental protection” in the book *Church Contribution to Integral Development*:

The church has a big role to play in educating people about the importance of forests to environment.... The fact that trees and forests have many values requires that they be protected. People should not cut trees indiscriminately. There must be national policy about conservation of forest reserves; and about afforestation, in areas where natural forest has been destroyed.¹⁸⁷

The church has to work hand in hand with government in this matter because even though we can convince people to care for the forests, we still need government power in reinforcing laws and policies that protect the earth from degradation. Those laws and policies would reinforce and provide the means of controlling the illegal exploitation of forests. It is encouraging to see the introduction of roadblocks controlled by police and other officials who fine those who do not have a license and impound their goods from forests such charcoal, meats or fruits.¹⁸⁸ However, due to the high level of poverty, corruption, and poor payment of civil servants this policy has lost its value. People are no longer discouraged from being involved in the illegal exploitation of woodland by these roadblocks.

Therefore, Christian leaders have a duty to conscientize members and communities to plant more trees and to preserve those indigenous trees which fertilize the land, medicinal trees for animals and humans, fuel timber trees, ornamental trees, fencing trees, and fruit trees. Father Kiongo from Limuru in Kenya sets an example by initiating nursery projects of indigenous trees named above. He could be an example that Zambian Christians emulate in their war against deforestation. It is argued that:

Christians at Limuru have benefited from his project. According to Kiongo, many of them have been conscientized on the need to preserve the environment by planting trees. He challenges all Christians to leave the environment better than they found it for the sake of posterity. His noble project is a sign of generosity on the part of Christians to future generations. His nursery has been highly recommended by agricultural extension officers, diocese development coordinators, foresters and heads of various schools who have even brought their students to see for themselves.¹⁸⁹

¹⁸⁶ Kachingwe, 'Combating Environment Degradation Using Cleaner Agricultural Technology,' p. 12.

¹⁸⁷ T.A. Byaruhanga Karungi, 'The church's Role in Environment Protection,' p. 233-234.

¹⁸⁸ R.J. Cheatle and M.E Cheatle, 'Fuel wood Utilization in Zambia,' in *Proceedings of the National Seminary on Environment and Development*. David S. Johnson and Wolf Roder (Lusaka: Zambia Geographical Association, 1979), p. 174.

¹⁸⁹ Samson Gitau K. and J.N.K. Mugambi (eds), *The Environmental Crisis: A Challenge for African Christianity* (Nairobi: Action Publishers, 2000), p. 99.

Kiongo is challenging secular organizations in caring for the environment. It is a sign that we Christians can set an example in the society we are living in. If we agree that our actions speak louder more than our words we should start planting trees in our church compounds and in our church land as an example that the community can learn from.

We can fight against exploitation of forests by self-centered business people who are busy in timber exports to other nations. Instead, we can encourage investors and local business people to come and start making furniture and other wood products in our provinces so that we may buy them at cheap prices and create job opportunities for our people. However, policies are needed so that once trees are cut for positive motives they are also replaced by planting others, as Byaruhanga Karungi advocates that the church role of planting and maintenance of the trees in the environment.

As the demand for wood products is increasing, the church should plant more trees. This should be emulated by other institutions and families in the country. Children should be encouraged to enjoy planting trees at home and at school; they should be led to appreciate that trees, like any crops should be planted and cared for.¹⁹⁰

7.5 Church response to air and water pollution

If there were a possibility to add to the Ten Commandments the following would be the eleventh one,

Thou shalt not pollute the environment by fouling the air, or by indiscriminate dumping of waste on land or contaminate water, whether surface water or ground water by thy actions. For the environment is thy inheritance from the Lord thy God your happy abode here below¹⁹¹

Kampeshi, who is a Christian environmentalist, has used biblical language to convince people that polluting the environment are sinning against God. We cannot claim to love God and fight against his good work.

In Zambia, the church has a mandate to engage in dialogue with those who own mines and seek better options for disposing of waste from those factories and mines. The church

¹⁹⁰ T.A.Byaruhanga Karungi, 'The church's role in environment protection,' p. 234.

¹⁹¹ Chilekwa Kampeshi, 'Thou Shalt Not pollute the Environment,' in *The Enviro-Line: Environmental Council of Zambia* (January-April, 2002), p. 5.

also has the responsibility of encouraging dialogue with those industrialized countries that are dumping waste in our continent in order to save it from air and water pollution. The reality is that “excessive production of carbon dioxide, carbon monoxide, sulfur oxides, nitrogen oxides and suspended particulate matter largely spewed out by the industrialized countries-those noxious fumes cause acid rain and adversely affect the elderly, children and those who have respiratory and heart conditions”¹⁹²

There is a need to educate local people (through dialogue) about the problems of air and water pollution. Christians should be involved in these campaigns. As Byaruhanga advises:

The church should educate and encourage people to build and live in well-ventilated, clean houses, with clean surroundings. In particular, proper disposal of excrement and other waste should be stressed. Dirty habits, of throwing rubbish anywhere, especially organic waste, should be discouraged. The bad smells, which arise during decomposition of such material pollute the air and thus make peoples’ lives uncomfortable. Worse still, such waste heaps become breeding grounds for flies and other harmful organisms, which cause or spread deadly diseases.¹⁹³

The problem of illegal dumping or disposal of trash/garbage in an area that is not designed for such material is common in Zambia. Heaps of waste are all over in cities and peri-urban areas. The presence of litter along routes in cities is evidence that we have a serious problem.¹⁹⁴ This illegal dumping of litter is not healthy for children and our earth as well as us. For example, in the Zambian context, it is argued that:

The consequences of water pollution include eutrophication of water bodies and prolific growth of waterweeds, such as the Kafue weed, that threatens infrastructure and the livelihoods of hundreds of fisher people in the lower Kafue River. Unsafe garbage disposal and discharge into the natural environment of wastewaters that do not meet environment standards, only serve to promote the prevalence of preventable environment diseases, such as dysentery, cholera, malaria, and bilharzia, that worsen the poverty situation, especially of women, children and the poor.¹⁹⁵

¹⁹² Dayton, Roberts, *Patching God's Garment: Environment Mission in the 21st Century* (Monrovia, California: MARK, 1994), p.59.

¹⁹³ Byaruhanga, Karungi, ‘The church’s role in environment protection,’ p. 233.

¹⁹⁴ Humphrey Kasiya Mwale, ‘Illegal Dumping,’ in *The Enviro-Line*, Environmental Council of Zambia (January –April 2003), p. 11.

¹⁹⁵ Poverty Reduction Strategy Paper for Zambia: A civil society perspective, Civil society for poverty reduction (CSPR) Executive Summary, 30th December 2003.

<http://www.angonet.org/Servidor_reducaoprobeza/CaseStudies/poverty_reduction_strategy_paper_zambia.htm>

Therefore, Christians can join efforts with ECZ and others civil societies or NGOs to carry out environmental awareness campaigns in order to prevent the continuation of water pollution. Christians also can be involved in clearing these dirty places, setting a good example in caring for our the environment, which goes together with teaching people the impact of illegal dumping in our environment. In addition, this awareness can be raised in our Churches as we preach or hold meetings. For example, we can use Christian radio (like Christian Voice) and television (like TBN) programmes to conscientize people. I think that Zambian Christians have more access to the mass media than other Christians in Africa. Indeed, there is a need to use the media to teach about environmental care, emphasizing that:

- i) Christians should plant trees starting with church compounds;
- ii) Soil should be conserved against erosion, particularly on hilly grounds;
- iii) Animals (both wild and domesticated) should be cared for;
- iv) Church ministers should preach through the environment, for instance, preaching against water and air pollution;
- v) Christians should be educated on environmental maintenance like searching for alternative sources of fuels other than firewood;
- vi) Overpopulation should be avoided to ensure less strain on available resources¹⁹⁶.

There is also another action that can be taken by the church in protecting our air and water from pollution. We can be involved in digging water boreholes and teaching people how to properly maintain those boreholes wells or tips. We should not forget that our voice is heard even more than the government voice on issues concerning these matters.

In summary, as Christians in Zambia we have the responsibility to protect individuals and communities and everything that exists in the community from using polluted water and air. Christians have to join efforts in fighting against anything that pollutes our natural water and air. They are our natural resources; we ought to protect them by preserving natural forests or planting more trees.

7.6 Church involvement in responding to the refugee crisis

As it has been noted in chapter four, Zambia has a growing population of refugees due to conflict in surrounding countries.

¹⁹⁶ Samson Gitau K. and .N.K. Mugambi (ed.), *The Environmental Crisis*, p. 83-84.

This has an impact on social security and environmental degradation. Our ministry in refugee camps is very important. I appreciate contributions that some churches are offering by associating with refugees in ministry. For example; firstly, I have personally worked with African Leadership And Reconciliation in Ministry (ALARM) that seeks to train church leaders in refugee camps. They also seek to conduct seminars on conflict resolution and reconciliation principles. Secondly, on different occasions Gospel Mission Team (GMT) has accompanied me to refugee camps for evangelistic campaigns. These two Christian Faith Based Organizations are setting a good example that others can emulate.

However, more effort has to be made by going beyond refugee camps to the nations where these refugees are coming from. We will continue to have refugees, as long as biblical teaching on biblical reconciliation in Africa does not motivate us to stop internal conflicts. The politicians are playing their role in conflict resolution. However, it is but a shadow of reconciliation, and not until political will links with biblical reconciliation then earth, especially Africa will experience peace. In the area of the ministry of reconciliation church leaders and Christians at large have done very little.

Christian response to civil wars in Africa should include conflict resolution based on Christian perspectives. The integration of refugees into communities rather than their isolation would be a great help in the healing process for both people and the ecological system. I am in favour of Christian organizations and Churches being involved in social work that can reduce poverty in refugee camps to enable refugees to build up self-supporting capacities. But also the environmental crises awareness must be taught in refugee camps. As a result, we will experience the real transformed community in refugee camps: 'a community moving towards self-reliance, a sustainable future and a vision for the future,' 'the community solving its own problems,' and 'a community supporting the weakest and most vulnerable in its midst.'¹⁹⁷

¹⁹⁷ Steve Hucklesby and Jane Travis, 'Reconstructing communities in the Context of Large refugees Populations: impact assessment, policy development and research needs,' in *Transformation* 19:2 (April 2002), p.103.

It is important to note that the environmental refugee crisis is very crucial because it not only concerns political refugees but also the indigenous people who are removed from their ancestors' land and exposed to unfertile land within their country.

As Christians we ought to dialogue with government on issues of equity in distribution of land and proper replacement of people in time development projects. We should protect people's rights by making sure that none is dehumanized in our community. We are prophets and priests of the community that God has called us to minister to. Christians can be the first to refuse to benefit from any project or programme that denies sustainable livelihood of other creation (human or non-human).

7.7 Positive action towards rural-urban migration

The rural exodus to urban areas in Zambia is one of the major causes of abnormal accumulation of people in towns, especially in mining areas like the copperbelt. This congestion of towns has resulted in an enormous environmental crisis in those cities. To make matters worse, mines that used to help in cleaning, spraying areas and making sure that water is distributed to mining people, are now closed. The economy of the country does not allow the council or the ministry of environment to carry on and respond effectively to this problem of hygiene in cities.

The alternative that the church can offer is a reduction of congestion in towns by building housing estates in farming areas along with other facilities that would attract people to stay. This is not only to help people but the church can also benefit as Byaruhanga Karungi suggests, "To reduce the problem of congestion in towns, the state and the church could construct housing estates outside the towns. The houses [and other facilities] could be rented to people, at affordable rent. The church would also get some revenue from rent, thus enhancing its self-reliance."¹⁹⁸ This is a very crucial alternative that Zambia needs. The time has come to shift the rural –urban mentality to an urban-rural migration mind set. This will not only help to alleviate the problems of agglomeration in cities, health crisis, crimes, and immorality in cities but it will also be an answer to food security in Zambia because more effort would be concentrated on farming.

As the church, we are aware that Zambia has enough land and fertile soil to produce enough food to feed Zambians. What is needed is enough human power-talented, trained and gifted to maintain, manage and turn our natural resources into a productive asset without abusing it. The church is one of the best institutions that have those people. However, this will not work if the government and church do not join hands together, in providing facilities like electricity, water and housing estates, and transport facilities in rural areas so that people are encouraged to stay there.

7.8 Christian and earth crisis education/awareness

It is important to realize that the moment we destroy our environment, our children will not have enough food, water, fuel-wood, air, and other basic necessity for their survival. Indeed, will not feel and experience the beauty of God's creation. Hence, the church needs to dialogue with the community about the maintenance of the ecological balance system. It is necessary to be aware that, " Ecological balance is also destroyed when people want to take more from nature at one time than nature's internal mechanism allows for the balance of the system."¹⁹⁹ Therefore, our environmental education will help people to remember that we ought to balance our development actions/projects with ecological concerns in order to sustain our lives and those of the rest of creation. As the Zambian civil society perceives it, in its aim for poverty reduction:

The overall objective of environmental programmes is to balance economic development with environmental concerns, in order to achieve sustainable development. The ultimate goal of sustainable development is to improve the quality of human life, while conserving the capacity of the environment to meet present and future human needs.²⁰⁰

This means that if we want to provide for our future generations we must be able to replenish the natural resources we are using. We need the ability to maintain a healthy relationship with all creation. GM Setiloane reminds us this relationship between human and nonhuman has been our worldview. "In the traditional Africa worldview humans

¹⁹⁸ T.A.Byaruhanga Karungi, 'The church's role in environment protection' p. 234.

¹⁹⁹ Harvey Sindima, 'Community of Life: Ecological Theology in African Perspective', in BC Birch, W Eakin and JB McDaniel, *Liberating Life: Contemporary Approaches to Ecological Theology*. (Maryknoll:Orbis, 1990), p. 140.

²⁰⁰ Poverty Reduction Strategy Paper for Zambia: A civil society perspective, Civil society for poverty reduction (CSPR) Executive Summary) (30th December 2003)

have always been regarded as one with the animals sustained by the same Mother Earth and harassed together by the same natural elements; sharing life together in the wholeness of community. Of course there were religious overtones to this myth."²⁰¹ This means building a relationship between animals, the habitat, flora, and human beings. The Free Methodist Church in Zambia as well as other churches should be concerned with anything that destroys that relationship because it harms the health of our present and future generations. We are one with the rest of creation and God created it to be so.

I recommend that the church intensify its environmental education and awareness campaigns from the pulpit, in Bible studies and in other Christian gatherings. The earth crisis is a threat to humans and non-humans. Christians are duty bound to carry out earth crisis education and awareness campaign very seriously. The earth crisis and illiteracy are still widespread in our villages and urban areas and they are definitely interconnected. If we want to save ourselves and jealously maintain our ecological system, environmental educational awareness is the key to overcome this earth crisis. The Free Methodist Church may work closer with environmental councils and other agents that have the objective of reducing or stopping the earth crisis.

One can fairly conclude that Churches can offer distinctive insights and guidance into the proper relationships that should exist between humanity and the rest of creation. Christians have a special contribution to make in the battle to preserve the natural environment from the many threats that are now facing it²⁰².

Adult education in this matter of environmental awareness is very crucial if we want to win this fight. This goes together with teaching people how to read and write. Through teaching people how to read and write we can introduce stories that show the effects and impacts of the environmental crisis in our areas. As Conradie argues, people have interesting stories about their ecology and "their numerous interesting stories, examples and cases studies of environmental projects initiated by Christians. Perhaps this remains the most appropriate way of raising environmental awareness."²⁰³

<http://www.angonet.org/Servidor_reducaopobreza/CaseStudies/poverty_reduction_strategy_paper_zambia.htm>

²⁰¹ Gabriel Setiloane, 'Towards a Biocentric Theology and Ethic-via Africa', in *The Journal of Black Theology in South Africa* 9:1 (May 1995), p. 59.

²⁰² Samson Gitau K. and J.N.K. Mugambi (ed), *The Environmental Crisis*, p. 87- 88.

²⁰³ Ernst Conradie, 'How can we help to raise an environmental awareness in the South African context?' p. 134.

I am strongly convinced that environmental education and awareness should start from an early age. Therefore, Churches should use all educational opportunities to educate future generations during their time of schooling. Hence, in agreement with Gitau's point of view, I would agree that the Christian Religious Education (CRE) syllabi could accommodate more topics on environmental conservation from a Christian perspective. By doing so the Zambian children and youths would be well prepared to sustain our ecological system and protect their future sustainability. This is possible if the Environmental Council of Zambia, Ministry of Education and churches come together in making those syllabi.²⁰⁴ Beyond that the Church can urge the Ministry of Education to prepare a syllabus that includes the earth crisis awareness.

7.9 Conclusion

In conclusion, the time has come for our 'being', and 'knowing' to match with our 'doing'. Our ministry from the pulpits and in different groups for Bible studies and worshipping can have more meaning if we practice those teachings in the community we are ministering to. Formal or informal ecological care awareness is helpful action that we can take. Beyond that, church assets, especially the land can be used as examples of projects that care for the environment. The Free Methodist Church in Zambia can make a strong impact on the community by setting a good example by putting into practice the above recommendations. This would be easier if the church works hand in hand with the Environmental Council of Zambia and Environmental Protection and Pollution Control Acts that "recognize the need for public awareness and education to facilitate information exchange and transmission of such information into practice".^{205 206}

²⁰⁴ S. Gitau and J.N.K. Mugambi (ed), *The Environmental Crisis*, p. 88.

²⁰⁵ Justice Mukosa, 'Zambia launches network for environmentalists', in *The Enviro-Line: Environmental Council of Zambia* (January-April, 2003), p. 3.

²⁰⁶ Poverty Reduction Strategy Paper for Zambia: A civil society perspective, Civil society for poverty reduction (CSPR) Executive Summary, 30 December 2003.

<http://www.angonet.org/Servidor_reducaopobreza/CaseStudies/poverty_reduction_strategy_paper_zambia.htm>

To improve natural resources management and effectively contribute to poverty reduction, it is necessary to:

- i) Review the protected area system in the country, determine sustainable levels of deforestation, improve revenue collection from commercial forest and wildlife products, and invest a significant proportion of the revenue in rural communities where these products are produced.
- ii) Reduce the dependence on charcoal as a cooking energy source by urban households, through low-cost electrification and affordable electric cook stoves, as well as promoting solar energy in rural areas.
- iii) Promote good land husbandry through sustainable conservation farming and environmental education.

CHAPTER EIGHT: GENERAL CONCLUSION AND RECOMMANDATION

To conclude, I would remind my readers that every Christian or local church has a great mandate to protect the earth or creation and also to prevent dehumanization of any kind. Therefore, I would agree with Field,

In each of diverse locations local congregations are to be sources of life, healing and transformation for the parts of the earth community in which they located. As each of these communities embodies the gospel as a community of contrast they provide a model of a different of living way in relationship with the entire community."²⁰⁷

To accomplish this mandate two comments are to be made:

Firstly the church is to be committed to the poor. The Biblical teaching reminds the church that God sides with the oppressed, marginalized, and the neglected. As a result, I would consider that the Free Methodist Church in Zambia has a mandate to adopt the principal of associating with the poor in our community to fight against their discrimination and dehumanizing poverty. The church has also to make efforts to involve people to participate in the fight to meet their needs in order to reduce the growing gap between rich and poor. It is no easy task. But the church can become a place that the poor may run to and find help and refuge. The church needs to become a place where the poor may be valued and allowed to participate in projects and programmes that intend to build up his or her sustainable livelihood. This is possible if the second point below is encouraged in the church.

Secondly, it will not be helpful to deal with poverty eradication and neglect the relationship between poverty and environment. Consequently, the church ought to maintain the goodness of this earth. To sustain the goodness of this earth as God intended is a theological contribution that the church cannot afford to miss. God's evaluation of his act of creation was good. In my view it was good because each creature existed for a purpose to sustain the life of the community. In short, there was a real interconnection,

iv) Promote markets for primary and secondary wild products to generate incomes in both rural and urban areas.

v) Reduce water pollution and unsafe garbage disposal through effective monitoring and enforcement of environmental standards and environmental education and awareness in both rural and urban areas.

interrelationship, complimentary and sustainability of every creature to one another. The church should focus on the evaluation of every act that we do on earth, recognizing that every Christian is accountable to God. The church should motivate NGOs, governments and other civil societies to also be accountable to God and/or at least to those they are serving. This evaluation will serve to judge if daily our human creativity is aiming to sustain the earth or destroy it. This is the reason I urge the Free Methodist Church members and church leaders to be committed to ecological care as a key to the poverty eradication in Zambia.

In summary, as Christians, no matter from which denomination, we are supposed to adopt this biblical wisdom and ecological commitment that:

“Our commitment is to sustain communities that live and develop by caring for, nurturing and sustaining the people of the earth, and the earth which belongs to God and which God has given us for our sustenance.”²⁰⁸ This reminds us of three points to consider in our ecological responses. First, humankind should avoid the deification of nature. It is wrong to love nature until we confuse creations and their Creator. Second, by all methods, let us avoid all kinds of exploitation of nature; we ought to be responsible people in caring for God’s creation, as we will be accountable before God for our actions. Third, it is our mandate that our relationship with nature is characterized by cooperation with God. This means accepting and reminding ourselves that we depend on God and all of creation.²⁰⁹ As a result, through good management of the environment, we will also sustain life. If the Free Methodist Church in Zambia relies, and commits herself on the sustainer and redeemer of all Creation through Jesus Christ who enable us, nothing will be impossible in our struggle to ameliorate sustainable livelihood of the poor through ecological care. In this war on the poverty eradication, I remind readers that the church has a heavenly mandate or calling to care for the Earth. Thus I concur with John Stott:

It is a noble calling to cooperate with God for fulfillment of his purposes, to transform the created order for the pleasure and profit of all. In this way our work is to be an expression of our worship, since our care of the creation will reflect our love for the creator.²¹⁰

²⁰⁷ David Field, ‘The gospel, the church and the earth’, p. 79.

²⁰⁸ SACC, ‘This is God’s Earth’ in *New South Africa Outlook* 5:2 (Autumn 2003), p.11

²⁰⁹ John Stott. ‘Foreword’ in JR Berry, *The care of Creation: Focusing concern and action*. (Leicester: Inter-Varsity Press, 2000) p 9

²¹⁰ John Stott, ‘Foreword,’ p. 9.

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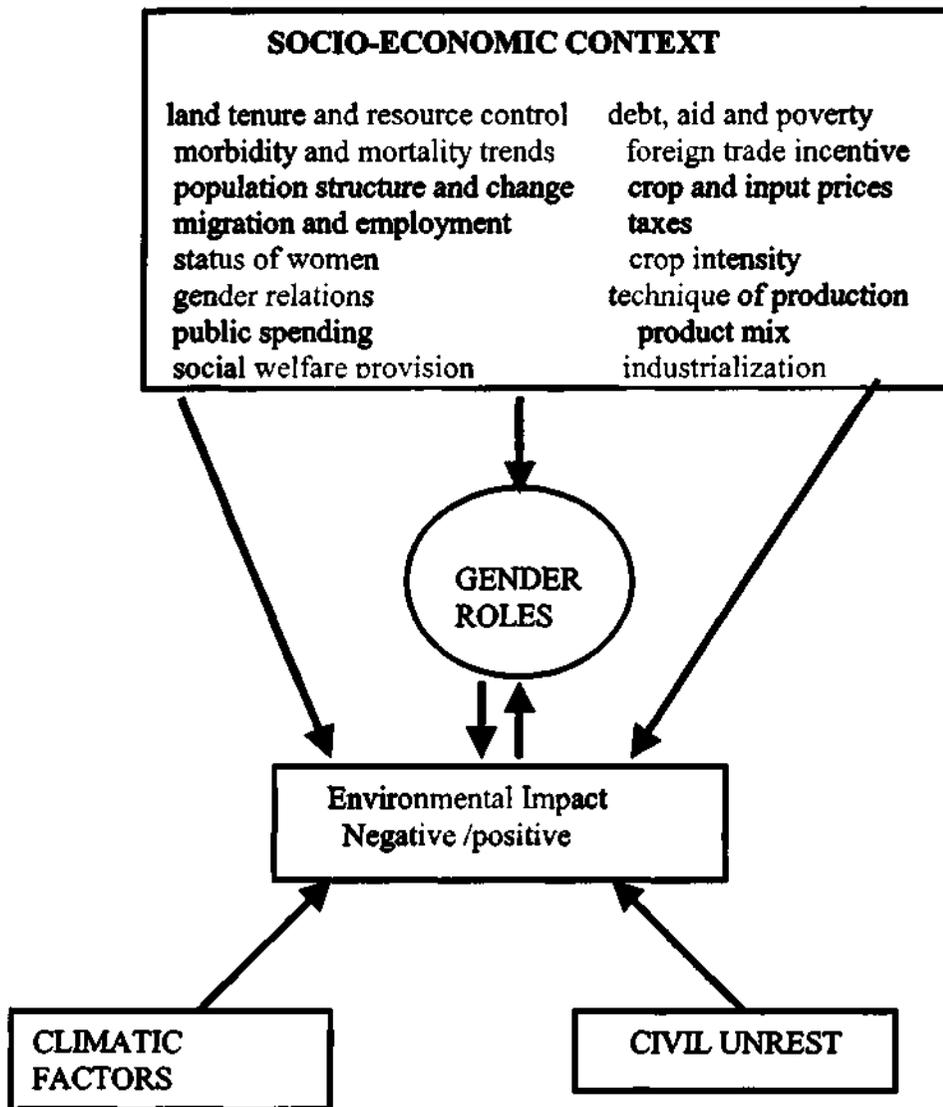
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APPENDIX

A. The socio- economic context of Gender –Environment Relationship



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B. DIAGRAM SUMMARY OF THE DISSERTATION

