Tilling and keeping the earth in an unjust economic order: Towards an African eco-theological framework.

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Submitted in partial fulfilment of the requirements for the degree of Masters of Theology (Theology and Development) in the School of Religion and Theology at the University of KwaZulu-Natal, Pietermaritzburg

November 2011

DECLARATION

I, **Gabriel Ezekia Nduye**, hereby declare that the content of this dissertation, unless otherwise states to the contrary in the text, is my own original work. It has not been submitted to any other university for a similar or any other degree award.

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ABSTRACT

This study proposes an African life sustaining eco-theological framework for tilling and preserving the earth in the context of food insecurity and environmental degradation. The study argues that food insecurity in Tanzania results from an unjust economic order, application of modern farming methods and a lack of concern for the environment.

The study examines the impact of the industrial agricultural revolution and the green revolution on food security and the environment. It argues that although these modern approaches to agriculture have improved the status of food security in many places in the world, their negative impact on the environment cannot be underestimated. More importantly, most of these modern farming methods are not compatible with the smallholder farmers in rural Tanzania due to their cost concentrated nature. The study has identified organic farming methods as having the potential to increase food production and take care of the environment. The study concludes that an African life sustaining eco-theological framework must comprise, but not limited to, six principles. These include: an African world view, a life-centred vision, a focus on sustainability, an African ethic of care, an understanding of salvation as holistic and recognition of an ecumenical earth community. An African life sustaining eco-theological framework that embodies these principles is capable of developing a sustainable relationship between humankind and non-human creatures.

Further, such a framework ensures the sustainability of life within the entire ecumenical earth community. It will stand against all forces, powers, structures and systems that are a threat to life in all its dimensions. This framework will advocate for the systems, structures and practices that are life affirming. However, in order for this framework to be fruitful, the application of these principles should not be restricted to the human community alone. Rather they must extend to include the entire earth community which form a web of life on earth. In a long run this will help shape the behaviour, attitudes and practices of humankind in relation to nature, which will then lead to the addressing of issues of food insecurity and environmental degradation in Tanzania.

ACKNOWLEDGEMENT

The result of this study is the product of contributions by many persons and organisations. While it is not feasible to mention every single one, I would like to mention some. Firstly, I thank God Almighty for giving me the strength, health, wisdom and grace that enabled me to carry out the study.

Secondly, I am profoundly grateful to my supervisor, Prof. Beverley Haddad, who is also the Theology and Development programme director in the School of Religion and Theology. It is her critical engagement in theology and development issues that inspired my interest in this study. Prof. Beverley, accept my appreciation for your humility, integrity and commitment to academic excellence that has brought me this far. Your articulation of development issues and your ability to think sharply through difficult issues in the process of your supervision are beyond value and your assistance throughout the duration of the study is unquantifiable. May God bless you abundantly.

Thirdly, my particular appreciation goes to all lecturers at the School of Religion and Theology for their mentorship and inspiration with special mention of Dr. Clint Le Bruyns, Dr. Gosnell Yorke and Rev. Dr. Roderick Hewitt. I am very proud to be part of this magnificent community.

Fourthly, special thanks to my sponsor, the Evangelical Lutheran Church of America (ELCA)-Global Mission (GM) and the Western Iowa Synod (WIS) for their bilateral and moral support throughout my studies. I also extend my thanks to my own church, the Evangelical Lutheran Church in Tanzania (ELCT) Southern Diocese (SD) for allowing me to undertake these studies. Fifthly, my deep appreciation goes to the following friends and colleagues: Sister Restituta T. Mushi, Mrs Rose Mboya, Ev. Noah Mtokoma, Rev. Seth Y. Mlelwa and Sister Annalise-the LTI Librarian. Others include my classmates Fr Thomas Ninan and Madam Anniegrace Hlatywayo. Thank you all for the invaluable support that you have graciously granted me in many ways. Finally, in a most special way, my deepest gratitude goes to my beloved wife Grace Michael Mponzi who has been subjected to a life of loneliness as a result of my absence. She humbly accepted the status of temporary single parent, taking care of our lovely children: Wema, Habakuki, Rogathe and Dorcus. You all have sacrificed a lot and missed my fatherly love and care. For all these, including your endless prayers, you deserve to be appreciated in the most loving way.

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LIST OF ABBREVIATIONS

AGAPE	Alternative Globalisation Addressing People and Earth
CSI	Church of South India
ELCA	Evangelical Lutheran Church in America
ELCIN	Evangelical Lutheran Church in Namibia
ELCT	Evangelical Lutheran Church in Tanzania
EU-CAP	European Commission for Agricultural Programme
GDP	Gross National Product
GM	Global Mission
HIV	Human Immuno-deficiency Virus
NAP	National Agricultural Policy
NFP	National Food Policy
NT	New Testament
OT	Old Testament
SACC	South Africa Council of Churches
SD	Southern Diocese
SAPs	Structural Adjustment Programs
TINA	There is no alternative
TNBC	Tanzania Business National Cooperation
TNCs	Transnational corporations
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environment Programmes
URT	United Republic of Tanzania
WCC	World Council of Churches
WIS	Western Iowa Synod
WWII	World War II

CHAPTER ONE

INTRODUCING THE STUDY

1.1 Introduction

Communities of Christian faith in Tanzania for the past century have been engaging with issues of social concern in a number of ways. These include education, health, diakonia, technical training and various development projects. Magesa (2009:259) gives an example of the Seventh-day Adventist Church which runs a primary school for girls who are normally married off by their parents and guardians while they are still children, and the Roman Catholic Church that runs a project of *Nyumbani* (home) for orphans and HIV-infected children. Apart from these important initiatives, there has been an increasing concern as to whether communities of Christian faith are doing enough to address the root cause of many social issues. Food insecurity and environmental degradation are among the critical issues that threaten the lives of many people around the world. This study seeks to examine the way in which the global economic system is impacting food insecurity in Tanzania. It also seeks to understand the link between methods of farming and environmental degradation and how this contributes to food insecurity. The study will then outline an African eco-theological framework for tilling and keeping the earth as a theological guide in response to issues of food insecurity and environmental degradation in Tanzania.

1.2 Background of the study

Studies in theology and development have exposed the researcher to various issues of concern to communities in Africa. Poverty, globalization, neo-liberal economic policies, economic globalization, economic injustices, food insecurity, ecological injustice and environmental degradation are among these issues. Having been involved in community development activities for the past five years, the researcher noted how these issues have affected the agricultural sector, food security and the environment in rural communities of Tanzania. Although the National Agricultural Policy (NAP) (2003:4) states that Tanzania is endowed with enough arable land, and that more than 80% of Tanzanians live in rural areas and their livelihood depends on agricultural activities, people are suffering from low food production and environmental degradation due to prolonged unsustainable farming practices.

This prompted the researcher to carry out this study, searching for an African eco-theological framework to address food insecurity and environmental degradation in Tanzania.

According to McKinney (2006:9), food insecurity is high in Tanzania. Although this is unusual for a country like Tanzania that depends heavily on agriculture as a source of food and income (McKinney, 2006: 10), the problem is linked with the global economic order characterised by deregulation, privatisation, trade liberalisation and reduction of government spending on social services (Brubaker, 2004:90). Therefore, the global economic system that puts much emphasis on cash crops to maximize profit while ignoring the basic needs of the community has led to food insecurity (Mshana, 2004:102). In addition, methods of farming used in agriculture leads to environmental degradation. As Nzabilinda (2005:36-37) argues, "food production is at high risk due to farming methods that have degraded soil, polluted water and caused loss of animal and plant species." Thus, while Tanzania is not a famine-prone country and has the potential to produce enough food to meet its requirements, it has been experiencing periods of food insecurity (Amani, 2004:6). To an extent, therefore, food insecurity in Tanzania has been influenced by the global economic system in which, according to Rodney (1982:14), a few rich countries exploit many underdeveloped countries. Also the methods of farming that are commonly used in the agricultural sector have led to environmental degradation. In order to address the situation, tilling and keeping the land and being conscious of the environment becomes critically important.

From a theological perspective, Munyika (2006:403) argues for the need to adhere to a notion of comprehensive salvation which takes into account the wellbeing of all of creation. This suggests that there is a need for a theological response to the issues of food insecurity and environmental degradation. Such a theological response must take into account the finite nature of African resources in order to develop an appropriate response to these issues. Kalonga (2005:36) infers that the biblical vision of shalom is connected to issues of food security and environmental conservation. The term embraces a comprehensive wellbeing of every community in its interconnectedness with other creatures. In addition, de Gruchy (2004:1) points out that food security are a central theme of the Bible. It begins with the apple that Adam and Eve shared in the Garden of Eden, through the last supper that Jesus shared with his disciples in the upper room, to the eschatological vision of the wedding feast in which all humankind will share. de Gruchy (2004:1) further outlines four theological

hypotheses for food security: food security and life, food security and freedom, food security and human labour and food security and power. This suggests that food security is important for people's lives and livelihoods. Food is more than a commodity that can be sold or purchased. It is a unique resource that should be ensured for all and in all levels of the society, family, community, national and international (de Gruchy, 2004:1-2). This shows that God is concerned with food security, hence the need for a theological response to food insecurity and environmental degradation. Such a response has to be an African theological response that will serve as a missio-ethical guide to economic activities and agriculture. This is because when dealing with issues of food insecurity and environmental degradation in Africa, it is necessary to take into consideration the African context and philosophy which forms the African world view. As Alokwu (2009:256) puts it "African world view excludes nothing rather it considers earth as home (oikos) of all creatures". In the African world view, adds Kaunda (2010:24), there is a strong connection not only between the living and the living dead, but also between God and creation and humanity and nature. Setiloane (1986:9) attests that African myths about the genesis of things demonstrate that the first appearance of things on earth was in the company or community of all creation. Concurring with Setiloane, Gitau (2000:33) asserts, "in traditional African societies, people lived in a religious universe where human beings and nature were partners."

This means that for Africans, the environment implies the totality of life. African religious heritage links Africans with creation of the world whether visible or invisible, above or below. All of the created order exists in relationship with one another in Africa. The logic behind taboos not to eat some animals and to honour sacred trees and stones that one can find across African communities attests to the positive relations between human and nature (Gitau, 2000:34). This suggests that a solution to African problems, which takes into account African world view, is potentially effective. Thus, the problem to be addressed in this study is that although much research has been undertaken into approaches to agriculture that are life sustaining, little has been done to articulate an African life sustaining eco-theological framework that would provide theological guidelines in addressing issues of food security and environmental degradation. This is the key reason that has motivated the researcher to undertake this study.

1.3 Definition of key terms and concepts

This section provides definitions of some key terms and concepts that have been used in this study. These terms and concepts include: ecology, earth community, economy, household, land, stewardship and sustainable agriculture.

While the term "ecology" is popularly used to refer to the scientific study of the interrelationships of nature, in this study it is used to describe interconnected nature of life on earth (Boff, 1995:12). The Bible offers a strong sense of the interconnectedness of all lives and their common dependency on God the creator. Furthermore, unlike the use of the term community to refer to human beings, in this study "earth community" is an inclusive term used to explain the truth that human beings and other creatures inhabit the earth, and hence form one community on earth which share all natural resources together (Rasmussen, 1997:112). This shows human dependency on other creatures and human significance for the entire created order (Boff, 1995:18 and Cobb, 1992:45). The term "ecosystem" is used in this study to explain that the entire creation forms a system of life and that dysfunction of any part becomes a threat to the entire system of life. Although the popular use of the term "economy" is used to explain the process of production, consumption and distribution of goods and services, in this study it is used to refer to the proper management of natural resources for the common good of all (Graham, 2009:154 and Daly and Cobb, 1989:132). Normally economists use the term "household" to refer to the people who share a common home. However, for the sake of this study "household" is used to refer to the entire planet earth as place to live, not only for humankind alone but the entire created order (Cavanagh and Mander, 2004:35 and Rasmussen, 1997:123). Additionally, the term "land" has been used in this study to refer to the entire natural environment and its link to life of all creatures. The terms "stewardship" is used to explain the vocation of caring responsibility for other creatures (Douglas, 2004:78). It is used within the wider vision of the community of creation as whole. Finally, "sustainable agriculture" is the term that has been used in this study to explain life-sustaining farming practices that observe the principles of ecology. It is about integrating plant and animal production practices in order to satisfy human food and fibre needs, enhance environmental quality and the natural resource base upon which the agricultural economy depends (Conradie, 2011:95 and Hafner, 2008:112). It also seeks to sustain the economic viability of farm operations while enhancing the quality of life of farmers and society as whole.

1.4 Research questions and objectives

The research question for this study is: *What would be an appropriate African life sustaining eco-theological framework in the context of food insecurity and environmental degradation in Tanzania?* In order to answer this key question, the following four sub-questions were formulated:

1. What are the factors leading to food insecurity and environmental degradation in Tanzania?
2. How does the current unjust economic order contribute to these issues?
3. What are more life sustaining approaches to agriculture in Africa that address the unjust global economic order and lead to sustainable food security?
4. What are the key theological principles that can contribute to an appropriate African life sustaining eco-theological framework?

Therefore, the objectives are:

1. To describe food insecurity and environmental degradation in Tanzania and how the two are related to each other.
2. To analyse how the unjust economic order fuels food insecurity leading to environmental degradation in Tanzania
3. To outline some appropriate African approaches to agriculture which are life sustaining in addressing food insecurity and environmental degradation in an unjust global economic order.
4. To develop key theological principles which are contextually appropriate to an African life sustaining eco-theological framework within the context of globalisation.

1.5 Theoretical framework of the study

'Great economy' a described by Rasmussen (1997) and '*oikonomia*' as advocated by Daly and Cobb (1987) are the theoretical frameworks informing and guiding this study. Rasmussen (1997:111) uses the concept 'great economy' to describe a community-based economic system that serves the basic needs of people and takes care of the environment (Rasmussen, 1997:111). This is contrary to idea of 'big economy' that refers to the current human global economic system which is based upon an expansionist vision and mass production to maximize profit, while ignoring issues of food security and environmental degradation. Such a system is framed and led by the world's richest industrial powers under international financial institutions (IFIs). It is an economic system that destroys natural resources in the name of development (Rasmussen, 1997:113). It is an economic system that intends to keep developing countries underdeveloped (Rodney, 1982:18). Unlike the current 'big economy' there are three principles that underlie a 'great economy'. First, it is an economy that gives priority to the integrity of creation as a whole (Rasmussen 1997:112). Second, it recognizes the relationship between society and nature, focusing upon how to live in a sustainable relationship with the rest of creation (Rasmussen, 1997:39). Third, it recognizes the concept of an 'ecumenical earth', meaning that the earth is a common home for all, human beings and all other creation (Rasmussen, 1997:40). This is the economy, adds Rodney (1982:18), which seeks to improve the lives of people in the society rather than just producing massive quantities of goods and services.

While Rasmussen puts much emphasis on the 'great economy' as a necessary component for a new economic vision, Daly and Cobb (1989:138) argue for the need to redirect the current economic order towards community, environment and sustainability, using the concept of '*oikonomia*' as a guiding principle. The principle of '*oikonomia*' is concerned with the management of the household in order to increase its use value for all members. In its widest sense, argue Daly and Cobb (1989:138), it refers to the larger community of earth where natural resources are shared by all creatures. As opposed to the current expansionist economic vision, the principle of '*oikonomia*' considers the costs and benefits to all in the community. It is interested in the concrete use value (use of resources based on needs rather than wants or greed) and limited accumulation of wealthy (Daly and Cobb, 1989:139).

There are two main reasons why the notions of 'great economy' and '*oikonomia*' are relevant for this study. First, they both emphasize that the dignity and importance of the human being is best understood in terms of just relationship between human beings and physical nature. This kind of relationship is embedded in an African cosmological view. Second, they both offer some important insights about mutual care and sharing of natural resources for the common good of all, human beings and nonhuman nature, which also has its roots in Africa (Ramose, 2009: 312).

Because Daly and Cobb (1989) and Rasmussen (1997) write from the Northern perspective, emphasising a community-centred economy, there is a need to have an African theological response to the issues of food insecurity exacerbated by environmental degradation in the context of an unjust economic order. Hence, the importance of the work of Msafiri (2007) is apparent. Msafiri outlines African theological principles in addressing these issues. From an African perspective, Msafiri (2007:90) articulates three key theological principles of '*oikonomia*'. The first is the principle of "solidarity" which demands unity and cooperation among all human beings in their relation to nature (Msafiri (2007:94). The second is a principle of "a fair consumption" of resources among human beings and non-human community (sufficiency), making sure that all human beings have access to enough resources (Msafiri, 2007:101-102). The third principle is that of "sustainability" which emphasizes the need for human beings to recognize the limits of natural resources and to be considerate toward the well-being of future generations (Msafiri, 2007:104-106). Other African theological literature on the subject includes Setiloane (1986), Gitau (2001), Mugambi (1995; 2003), Parratt (1987), Muzorewa (1985) and Katongole (2002). The work of these scholars also guides and informs the study by offering a basis for developing an African life sustaining eco-theological framework. In addition, Magesa (2009:251) points out that the importance of an African approach to these issues does not only lie in the search for human dignity, justice and rational material assumption, but the world needs it for ecological and ethical reasons as well. This is necessary because for many years African contributions towards issues of daily life such as health, education, economic and political have not received a fair hearing within international discourse.

1.6 Research methodology

This is a non-empirical study that relies on a literature review. The research methodology has followed three steps: historical analysis, a critical social analysis, and a theological analysis. An historical study has been carried out to understand food insecurity and its link to the global economic order in Tanzania. This has helped the researcher to discover how food insecurity is intensified by the global economic system. A critical social analysis has been employed to understand the root causes of food insecurity and environmental degradation in Tanzania and to articulate an African life sustaining approach to agriculture to ensure food security and environmental conservation. A theological analysis constitute two parts. In the first part there is an analysis of unhelpful theological aspects that contribute to the current unsustainable human relation to natural environment. These aspects are based upon an expansionist vision and mass-production for profit-maximization at the expense of food security and environment. The second part argues for alternative theological principles that might form the basis of an appropriate African life sustaining eco-theological framework that will guide a theological response to issues of food insecurity and environmental degradation.

1.7 Structure of the study

After introducing key issues of the study in chapter one, chapter two explores the context of food insecurity and environmental degradation in Tanzania. It argues that modern farming methods, lack of concern for the environment, and unjust global economic order are the threefold reason for food insecurity and environmental degradation in Tanzania.

Chapter three is an attempt to identify indigenous life sustaining approaches to farming in the context of an unjust economic order that can ensure food insecurity and environmental conservation. It argues that in order to address issues of food insecurity and environmental degradation in the Tanzanian agricultural sector, it is important to combine indigenous knowledge and skills with the scientific discoveries for a threefold purpose: increase yields, preserve nature and improve livelihoods of the small holder farmers.

Chapter four discusses some theological trends that have changed the way people relate to nature and paved a way to the current unjust global economic system. It points out that longstanding patriarchal Christian traditions, especially in the Western part of the world, have

had a great influence on the current unjust global economic order. Christianity has adopted an anthropocentric approach to theology where humanity is placed above all and the rest of creation is meant to serve humanity. Such attitudes have led to the looting of natural resources in the name of development, but for the benefit of the few. This calls for the need to opt for more life sustaining approaches to theology that will shape the human practices and behaviour regarding tilling and keeping the earth.

Chapter five brings together various strands of the study by discussing an African world view in relation to nature. It also outlines six principles that must stand at the centre in the process of developing an African life sustaining eco-theological framework to facilitate tilling and keeping the earth. It then argues that creating an African life-sustaining eco-theological framework is a process which cannot be completed by a single study. This process might need the integration of many other African theologies. At the centre of the African life sustaining eco-theological framework is a life-centred vision. The framework will guide communities of faith in addressing issues of tilling and keeping the earth in the context of food insecurity and environmental degradation under the unjust global economic system.

Chapter six draws findings from the previous chapters to point out the need for communities of faith to engage on issues of tilling and keeping the earth, which is the common home for human being and nonhuman creatures. Finally it offers some signposts for further studies.

CHAPTER TWO

THE CONTEXT OF FOOD INSECURITY IN TANZANIA

2.1 Introduction

This chapter sets out to briefly describe the context of food insecurity in Tanzania. It discusses the three aspects that create the situation of food insecurity in Tanzania. These are the unjust global economic order, modern farming methods, and a lack of concern for the environment. It then points out the necessity to adopt environmentally friendly farming methods in efforts to address the problem of food insecurity in the context of environmental degradation in Tanzania. It concludes by arguing that in order to address the problem of food insecurity in Tanzania, it requires faith communities and society at large to adopt a more life giving approach i.e. being sensitive to environment, using sustainable farming methods and addressing the unjust economic order.

2.2 Food insecurity in Tanzania

The problem of food insecurity in Tanzania is threefold: an unjust global economic order, modern farming methods and lack of concern for the environment. It affects large numbers of people since 80% of the population sustain their lives through farming. The three aspects are very much linked together. The global economic order under a free market system encourages people to practice monoculture for market, using modern farming method in order to maximize production. On the other hand, most smallholder farmers lack concern for the environment, hence indulge in practices that degrade the environment and reduce its productive capacity. Beukering et al (2007:7) affirms this when state:

> With an estimated population of 40 million people and an extremely high reliance on charcoal, Tanzania is a classic example of the social and environmental risks faced by many developing countries. About 85% of the total urban population depends on charcoal for household cooking and energy for small and medium enterprises. Poor farming methods also contribute significantly.

In the process of describing the context of food insecurity in Tanzania, the following section articulates how the current global economic order and globalization impact on the issues of

food insecurity and environmental degradation and how modern methods of farming and lack of concern for the environment exacerbate food insecurity Tanzania.

In most African countries, agricultural production is the main source of food security. This is due to the fact that many people depend on agriculture for food, livelihood and employment, especially in Sub-Saharan Africa (Maxwell, 2010:32). In the case of Tanzania, agriculture is recognized as the backbone of the Tanzanian economy. It provides a livelihood to 80% of Tanzania's population (TNBC, 2007:26). According to Maxwell (2010:34), countries have adopted different choices for agricultural strategies. There are three principal approaches to agriculture outlined by Maxwell (2010:26). The first strategy is growth first, a strategy which concentrates on quick high return for more profit. To a large extent this strategy focuses more on cash crops for export purposes than food crops for human consumption. The second strategy is food first strategy, focusing on the maximum output with the bias on food production. The third strategy is a food security first strategy that seeks to give priority to improving the ability of the poor people to acquire food by production, purchase etc (Maxwell, 2010:66). Based on these strategies, some countries have advocated for large-scale farming while others emphasises on small-scale farming. Others have adopted capital and labour intensive methods of food production, for both cash and food crops production. This means that some have emphasized agricultural growth while others focus on production sustainability. Given the current context where the global economic order greatly emphasizes the production of goods needed by the market, many countries are forced to adopt an agricultural growth model which operates under economic liberalization policies. These are policies that dictate for deregulation, privatization, and removal of subsidies to the farmers, and reduction of government spending on social issues (Maxwell, 2010:35). As result of this, poor countries are required to enforce the rules made by rich countries that protect their own farmers, such as EU commission of Agricultural Programme.

According to Mukhebi et al (2011:7-8), the current food situation in Tanzania has not been satisfactory. Among 21 regions that constitute Tanzania's mainland, 9 regions experienced food shortages and an average of 20-25 districts out of 130 tend to have food deficits annually. The situation was worse in 2009 when 149 000 tons of grain were distributed to about 1.8 million people who were suffering from hunger. On the other hand, the United Republic of Tanzania (URT) report on food security (URT, 2006:2-3) points out that

although the country is not drought prone, food insecurity in Tanzania is both transitory and chronic in nature. According to this report (URT, 2006:3), transitory food insecurity arises from the instability of food production, unstable food prices and low or fluctuating household income. This is common in the marginal areas of the central and northern regions of Dodoma, Shinyanga, Singida, and Tabora, parts of Tanga, Arusha, Kilimanjaro and Manyara. Further, it is highlighted that continuous or chronic food insecurity is very common among the urban poor households, the rural landless and the small holder farmers and pastoralists who have minimal resources to produce enough food for themselves (URT, 2006:3).

Furthermore, Tanzania obtains much of its food through domestic production, but there have been a number of factors affecting food availability. These factors include low production due to low productivity of land, labour and other production inputs. There are also high incidences of pests and diseases, as well as inadequate processing, storage and marketing infrastructure (URT, 2006:4). In terms of food accessibility, Tanzania is highly affected by inadequate infrastructure, especially the lack of a transportation network from the surplus food production area (i.e. the southern highland regions and some other peripheral areas of the country) to the most traditional food deficit areas (i.e. the central corridor and parts of the northern areas). This normally leads to high costs of transportation and distribution which eventually results in the high price of food in food deficit areas, therefore affecting access to food by low income communities. Low price of farming produce is another factor that prevents people from accessing or producing enough food. In most cases a farmer does not have a say in determining the price of the produce, rather it is the market that determines the price without considering factors and cost of production the farmer has incurred (URT, 2006:4). This shows how the free market ideology impacts both food availability and accessibility.

In terms of food utilization, URT (2006:5) shows that according to a national demographic and health survey (1999) and the UN Human Development report (2005), 38% of the children in Tanzania suffer from chronic protein energy malnutrition, while 30% of children are classed as underweight at the age of 5 (URT, 2006:5). Nazir (2010:4) further argues that the degree of food insecurity in Tanzania can also be ascertained by the fact that 30% of Tanzanians live below the poverty line. Additionally, an average Tanzanian farmer is capable of producing enough food to feed two people a year, unlike in Europe where one farmer on

average produces food to feed more than 130 people a year (Nazir, 2010:5). This has impacted on people's ability to secure access to food as well as opportunities, growth and life improvement. Concurrently, Amani (2006:35) warns that although development of agriculture is an effective strategy to combat food security and alleviate poverty, methods of farming employed need to take into account environmental issues because lack of concern of environment has a great impact on food production and food security. This is echoed in the words of Mwalimu Nyerere;

> …agriculture must provide enough food for all community members, it must provide food to all vulnerable groups like children, aged people, those who are working in offices, it should provide nutritious food for all, it should provide surplus for export and should provide raw materials for our industries (Nyerere, 1967:1-5).

Kisanga (2010:12) argues that there is a close link between the environment and food security. Increased use of wood fuel or the expansion of land area for cultivation or for grazing often times results in deforestation and land degradation which in turn affects food security. Given this situation, URT (2009: 30) asserts:

> Food insecurity is still a major problem in Tanzania. An analysis of food production over the last ten years indicates fluctuation of food production between years of surplus often followed by years of food deficits. The variability of food production between seasons is among other things mainly attributed to the country's overdependence on rainfall. In addition, food availability in the country is often affected by shocks to local production attributed to vagaries of weather and cross border trade. Hence, there is a need to have strategic interventions to address the issue of food insecurity.

With this regard, the Tanzanian government is concerned with issues of food insecurity and environmental degradation. The government has demonstrated its concern by formulating a number of strategies, policies, and legislation towards addressing environmental challenges including the impact of climate change on the agricultural sector. According to Mukhebi et al (2011:10), these include amongst others, Water Resource Management Act (2009), National livestock policy (2006), the National Environment Management Act (2004), National water policy (2002), the Protection of new plant varieties (plant breeders right) Act (2002) and the Forest Act (2002),. This shows that the government is aware of the fluctuating food status in the country which affects people and also impacts the economic development of the country.

It is evident that the situation of food insecurity and environmental degradation is the result of human activities, especially economic activities.

Further, Mugambi (2003:181) asserts that the impact of the current unjust global economic order is evident when looking at the agricultural sector in Africa. Although Africa is a major producer of some of the most important luxury commodities that are utilized in the affluent nations - coffee, tea, cocoa, palm oil, cotton, rubber, flowers etc-Africans are not the ones to determine the cost and prices of those products. In this way, the current economic system is life-denying not only for many people at the margins of the society but also for the earth and biodiversity at large. LenkaBula (2009:19) contends that the original meaning of economy is access to livelihood. However, under the current global economic system, the majority of the people, especially smallholder farmers, are denied access to livelihood and the environmental system is being looted. This means that if the current economic system continues, the life of the human community and earth is heading for a serious crisis.

The current economic system undermines community because its vision is different from that of *oikoumene* as suggested by Daly and Cobb in section 1.5. Rather, its vision is based on absolutization of individual freedom and private property for accumulation of wealth (LenkaBula, 2009:20). The Accra Confession[1] has named the present economic system an 'empire', highlights LenkaBula (2009:22), and describes how the system is exploitative and an instrument of domination. Such exploitation and domination is done in a number of ways including monopolistic control over global economic resources, the force of military powers, domineering tactics over other countries and people, and the planet earth as whole. Such exploitation and oppression need to be addressed in order to promote life. According to Alternative Globalization Addressing People and Earth - AGAPE[2] (2007:4) there are eight

[1] Accra Confession is declaration of faith made by the Reformed Christians, which was adopted by delegates of the 24th General council of the World Alliance of Reformed Churches in Accra, Ghana 2004. The declaration is based on the theological conviction that economic and ecological injustices exacerbated by the current global require a reformed family to respond as matter of faith in the gospel of Jesus Christ. It is evident in the declaration that issues of economic and ecological justice are not only social, political and moral issues, rather they are integral to Faith in Jesus Christ and they affect the integrity of the entire church. Accra Confession extends a call for individual Christians and churches to take a stand against economic and environmental injustices.

[2] AGAPE is a special programme devised by World Council of Churches (WCC) that seeks to call the churches to respond to the question: how to live a Christian faith in the context of unjust globalization? The churches are

points of action in this process of effecting transformation. These are poverty eradication, trade, finance, sustainable use of land and natural resources, life-giving agriculture, decent jobs, emancipated work and people's livelihoods (AGAPE, 2007:5). When doing all of these, the focus should be on life as whole rather than focusing on Global market system, something which leads to the destruction of environment. Focus on life entails life in its interconnected nature (Hafner, 2008:79). Hathaway and Boff (2010:56) have identified three misfits of the current economic order. First, the current economic order is obsessed with unlimited growth - perceived to occur when the GDP portrays signs of health - while in reality natural wealth is depleted and poverty deepens through the process of mal-development. Second, globalisation is used to impose a single culture and single economic model on the entire planet. The current global economic system gives primacy to profit gain at all cost. The focus is on a short term fix rather than long term sustainability (Hathaway and Boff, 2010:56-57). Prioritization of profit made for a few is at the expense of many. In this system, many of the activities that generate greater profit in one direction tend to undermine the quality of life, whereas those activities that have potential to sustain life are considered uneconomic. Third, the current economic system concentrates power and wealth in the hands of multinational corporations, which are artificial entities that evade accountability to the wider communities in which they operate. In the context of Tanzania, therefore, the global economic system that puts much emphasis on cash crops to maximize profit while ignoring the basic needs of the community has led to food insecurity (Mshana, 2004:102).

In addition to this, Cavanagh and Mander (2004:41) contend that food insecurity in many parts of the world is exacerbated by the global economic system which puts much emphasis on producing a single crop for export rather than sustainable food production. Single crop or monoculture is a colonial construct whose objective is to meet the needs of the empire (George, 1972: 124). As result of this, many communities have lost most of their crop diversity. Being seen as more efficient than small-scale farming, the global economic order ignores the cost of environmental degradation and the social cost of taking care of small-holder farmers who have lost their livelihoods through such an unjust economic system. Articulating the relationship that exists between food insecurity and the global economic order in Tanzania, Amani (2004:6.10), McKinney (2006:9-11) and Majid (2009:7) have

called to challenge the logic of globalization by advocating for alternative way of life of the community in diversity taking issues of life and integrity of creation serious.

pointed out that food insecurity experienced in Tanzania cannot be studied in isolation. The problem has been intensified by Structural Adjustment Programs (SAPs)[3] which form part of the global economic order, and where the impact of the removal of subsidies for the most vulnerable groups in the agricultural sector was not taken into consideration (Mambwe, 2002:25 and Chagunda, 2002:22). Since 1986, Tanzania has been involved in a series of adjustment programmes following the first agreement with the International Monetary Fund (IMF). Tanzania has been forced to implement drastic measures in an attempt to create an environment favourable to international investment across all economic sectors (McKinney, 2006:19-20).

Lowe, Lurie and Hintzen (2004:208) argue, "SAPs have led to the declining sustainability of the rural subsistence economy because of its emphasis on cash crops for profit making, rather than for food production and environmental conservation." As a result of this Tanzania has been importing food and receiving food aid to offset its production deficit (Amani, 2009:8), while the environment has also been impacted, for example, by the highly intensive farming methods (plantation economy) and by the use of chemicals to increase yields. This indicates how the global economic order influences food insecurity; by damaging the environment through advocating for industrial farming methods. Similarly, Mshana (2004:102) charges that food insecurity is exacerbated by the adoption of the growth pro-poor economic model, as influenced by international communities.

Because of this global pressure, Tanzania has been advocating for cash crops for many years to attract foreign currency. This in turn has contributed to the lowered levels of food production because attention was given to the cash crops and to other sectors that are profitable for multinational companies, like the mining and tourism sectors (Mshana, 2004:102). Tanzania is, thus, not unaffected by the global economic order. Food insecurity in Tanzania is largely an environment-related problem operating under an unjust global system.

[3] Structural Adjustment Programmes (SAPs) refers to global economic policies which countries must follow in order to qualify for new World Bank and International Monetary Fund (IMF) loans and help them make repayments of debts owed by the commercial banks, governments and World Bank. It emerged in early 1950s. Although they are designed for individual countries but have common guiding principles and features which include export-led growth, privatisation, trade liberalization and the efficiency of the free market. The SAPs requires countries to devalue their currencies against dollar, increase import and export restrictions, balance their budget and not over expend, remove price control and government spending on social sectors.

According to Brakemeier (1992:6) the present global economic order requires rethinking and re-examining the type of development needed, taking into account the limited resources of the planet earth. Natural resources are decisive for the survival of humankind. However, the unjust economic order that benefits a few has created room for the overexploitation of natural resources.

Apart from the unjust global economic order, Mwombeki (2001:97) and Msafiri (2007:3) point out that modern farming methods are another factor that contribute to food insecurity. Modern farming methods (industrial agricultural methods) that have been encouraged throughout the country (Tanzania) have had a negative impact on the environment which supports food production. Such a situation has been exacerbated by a prolonged mono-cultural cropping system, damaging the soil's microbiological organisms that help to maintain the texture and fertility of the environment (Msafiri, 2007:4).

Explaining this further, Cavanagh and Mander (2004:39) point out that industrial agricultural methods have changed the diversified farming system to become a more specialized agricultural enterprise. With industrial agricultural farming methods, much of the emphasis is put on monoculture. Similarly, TNBC (2008:27) argues that among many factors that have contributed to the failure of agriculture to produce enough food, is the fact that it has persistently continued to encourage people to produce what they do not consume and consume what they do not produce. This infers that by using modern farming methods, agriculture in Tanzania has paid more attention to demands of the market (export) than to the demands of the community. Such imposed specialization of agriculture has left most of the smallholder farmers, especially in the developing countries, vulnerable to food insecurity.

Further, specialization of agriculture has gone together with modernising and improving traditional techniques for ploughing, sowing and harvesting. This in turn created a plight for smallholder farmers because they are not capable of acquiring modern farming tools, and increased environmental degradation (Green, 2008:127). In order to balance production and conservation of nature, farmers are challenged to find better farming technology and natural resources management practices, better institutions and better policies that will guide them. In the developing countries, lack of advanced technologies often leads to environmental degradation because agricultural producers tend to clear more land every year than they

would if they were using more sustainable and productive methods (McNeely and Scherr, 2001:11). In more highly capitalised farming, it is often an excess of modern farming methods that create too much pollution or compact the soil which leads to the environmental degradation and decline of food production.

Being aware of this environmental damage caused by modern farming methods, Maro (2008:1) explains that environment comprises the physical and biological systems that provide humanity with basics needed to support life especially in terms of food production. The environment includes air, water, land, plants and animal life, including human life, as well as human social, economic, cultural and recreational aspects. Moreover, adds Maro (2008:1), environmental degradation as a result of modern farming methods implies the reduction of the capacity of the environment to support the production of food. In the Tanzanian context, as elsewhere, environmental degradation incorporates six components of the environment. The first component is land degradation, which entails reducing the productive capacity of the soil in many parts of the country (Maro, 2008:1). Second is lack of accessible good quality of water for both urban and rural inhabitants (Maro, 2008:1). The third component of environmental degradation is pollution in towns and in the countryside that affects the health of many people and lowers the productivity of the environment (Maro, 2008:2). Fourth is the loss of wildlife habitats and biodiversity, which threatens the national heritage and creates uncertainty for future generations (Maro, 2008:2). Fifth, there is deterioration of aquatic systems and the productivity of lake, river, coastal and marine waters due to the poor management system of natural resources (Maro, 2008:2). Sixth is deforestation which has to do with clearing the forest and woodland heritage to make way for mass agricultural production, or to use for wood fuel and other demands (Maro, 2008:2). All these together (land, water, air, plants and animal life) constitute the basic resources necessary to sustain life on earth, especially food production. They have been built up over a long period of time and continue to produce new resources such as plants and wildlife, thus maintaining the environment's productive capacity. The fact that modern farming methods are not environmentally sensitive raises a concern about its sustainability. On this basis, Maxwell (2001:47) asserts,

> there must be a shift towards more intensive, sustainable forms of agriculture that will make substantial contribution to food security, not only through its ability to contribute to a sustainable intensification of production but also through an emphasis on improving people's ability to acquire food .

In concurrence with Maxwell, Lightfoot and Noble (1999:206) explain that the focus of farming systems has changed overtime. The first focus was on increasing yields of certain crops, not necessarily emphasising food production. The second focus was on the use of sophisticated technology in order to improve production but with little attention to environmental care. The third focus was on concern about natural resources, the sustainability of the environment and understanding the essence of the environment for food production. Finally, there is a concern for livelihood (Lightfoot and Noble, 1999:206). Hathaway and Boff (2010:65) argue that environmental degradation has been intensified by the fact that the current economic system is operating on an anthropocentric basis, where the nonhuman world is considered to be exclusively for the service and disposal of humanity. Given the extent to which the environmental capacity to support food production has been degraded, there is a need for a paradigm shift in the agricultural systems.

Furthermore, Loesser (2006:2) argues that environmental degradation happens when there is an imbalance between what the earth produces (its productive capacity) and what humanity consumes or extracts from the environment. It reflects overconsumption and misuse or mismanagement of the natural resources, to the extent that the environment's productive capacity is exhausted, depleted, reduced or degraded (Loesser, 2006:2). On this basis, Hathaway and Boff (2010:66) emphasise that an anthropocentric attitude to nature is irrational because it leads to the destruction of the ecosystem that life is fundamentally related to and depends upon. Hafner (2008:89) claims that environmental degradation speaks about human beings' alteration of the dynamic equilibrium which "guarantees the survival of the biosphere and therefore of the resources which are necessary for life". Paradoxically, those people who are food insecure are the ones who opt for environmental degradation, in their search for survival (Moorehead and Wolmer, 2005:99). So far it is clear that in the context of Tanzania, food insecurity is linked with unhelpful farming methods that are not sensitive to the environment and hence increase people's vulnerability to food insecurity. That is why the National Food Policy (NFP) of Tanzania (URT, 2004:3) states clearly that the type, magnitude and causes of food problems in Tanzania are environmentally-based, emanating

from both internal and external forces. This means that there is an interconnectivity of eco-system. Food insecurity at various levels, for example at the household, village, and national levels, is caused by problems related to failure to take care of the environment that has the productive capacity to support food production, and application of farming methods that are destructive to environment (URT, 2004:9). The policy also stipulates that the production of food crops in the country is generally inadequate due to a number of reasons including improper land use, lack of adequate and appropriate techniques (approaches) to farming, the use of inappropriate agricultural implements and inputs and influence from the global economic system. All of these factors lead to low food production which result in food insecurity (URT, 2004:15).

Coupled with the unjust global economic order and modern methods of farming that have been discussed above, lack of concern for the care of the environment has contributed to the whole question of food insecurity. Although Tanzania's main source of food for the majority of the people is through agricultural production, most of them have not been able to produce enough because their farming activities have damaged the environment to the extent that it cannot fully support food production (URT, 2003:4). To a large extent this has been exacerbated by farmers being insensitive to the environment. Moreover, Angelsen and Kaimowitz (1999:83) point out that when the price of the inputs to agriculture is high, farmers adopt a more extensive production system by cultivating more land where they can use fewer inputs. This has been a common practice in Tanzania - every year most people will clear new land in order to increase yield since they cannot afford to buy agricultural inputs which have become too expensive especially for low income communities. The environment is being exploited extensively due to methods of farming used in agriculture, leading to further environmental degradation.

According to Hathaway and Boff (2010:67) such practices indicate that farmers do not demonstrate their harmonious relationship with nature. They have not yet developed a profound respect and love for all life on earth. They still uphold the domination and manipulation of the earth as if it is private property. This suggests that there is a need to make sure that human beings do not consume any more than what is required for a dignified and healthy life. For this reason, Hathaway and Boff (2010:55) call for change as they say, "turn away from the road of pathology and choose instead a path that leads to health and life."

Taking care of the environment is the responsibility of all human beings. All people are compelled to know that it is their inherent responsibility as human beings to look after the environment and perfect it (Gitau, 2000:97). Individual human beings must be sensitized to safeguard nature and how to relate to nature. Further, environmental education among the communities cannot be underestimated (Gitau, 2000:106).

Additionally, Getui (2000:50) argues that the significance, the all-embracing, the all-pervading influence and implications of the environment for human existence, entails that the present generation has special obligations and limitations in relation to the planetary environment. The involvement of various institutions and organisation on environmental issues is of particular importance. It is the role of human beings and all institutions to be concerned with the welfare of humanity that is affected by the environmental degradation. In order to have a tangible result towards creating or sustaining a healthy environment, the role of each individual and society in general is of critical importance. It has been clear also that small scale farming methods have less harm to the natural environment because it is intensive by nature where people do not need big farms to produce enough food. It also makes sure that everyone in the community has a land out of which to make a living. On the centrally, large scale farming methods a more technological centred. It requires huge piece of land that need big machines to be able to cultivate it. This leads to the unjust distribution of land where only few people who are economically well can afford to possess land. Therefore, apart from its contribution to environmental degradation, it also strengthens poverty. Therefore, it can be concluded that the unjust global economic order, modern methods of farming and lack of concern for the environment are the major causes of food insecurity in Tanzania.

Given this situation, Hathaway and Boff (2010:58) contend that there is a need to create a new economic order on the basis of equity, justice, empowerment and ecological health. Unlike the current unjust economic order, the new economic system must be the earth community system, an economic order based on the principles of sustainable community that cares for all creation. While in the current unjust economic order life is characterised by hostility and competition, human flaws and dangers, patriarchal domination, love of power, masculine dominance and defence of oneself, in the new authentic earth community economic order, life must be supportive and cooperative, there must be many possibilities, full of partnership, cooperation and life, love of life, defence for the rights of all, mutual

responsibility and gender balance. In the new economic order, finance and business should exist to serve the wider community, there must be increased human recognition of their dependence on the wider earth community for their survival, and valuing of the ecosystem as the foundation of all life and all human activity. In the new economic order, value is not measured by money but by any activity that contributes to the health relationship in the wider community and the sustenance of life for all (Hathaway and Boff, 2010:59). Since the current unjust global economy exerts injustice on humanity and the environment, hence threatening life sustenance, addressing food insecurity requires the deployment of more life-giving farming methods which take into account the sustainability of the environment and food security for all.

In addition, Buchingham (2000:4-5) offers another ground why Christian faith community engagement to issues of food security and environment, especially explaining the link between food and faith. Through the medium of food we live and grow, we also develop relationship and even express our spirituality. Lack of food puts all these pursuits into peril. Furthermore, food is vital in the Bible as well (Buckingham, 2000:8). It plays a central role in human contact with God in the Garden of Eden. Israel was fed by God in its forty years desert trek, then ushered in the fertile land that meets all of their physical needs. The ministry of Jesus Christ started at the wedding reception and ended with the inauguration of the new covenant in the bread and wine. The early church, inspired by the new covenant, shared everything, food included. All these show that food is important for human physical, social, moral and spiritual wellbeing of God's people on earth (Buckingham, 2000:17). Therefore Food is life and fabric of human relationship. On this basis, every Christian faith community is obliged to share food and resources both locally and globally. They can do so by promoting farming methods that are life affirming as Pope John Paul II in Nestle (2010:170) asserts " .using biotechnology to increase production was contrary to God's will and that when farmers forget this basic principle and become tyrants of the earth rather than its custodian, sooner or later the earth rebels."

2.3 Conclusion

In this chapter it has been argued that the context of food insecurity in Tanzania is the result of a threefold reason: an unjust global economic order which forces people to comply with the free market ideology, modern farming methods which focus much on profit maximization, and lack of concern for the care of the environment among the small holder farmers. Instead of following the Western modern methods of farming in an effort to respond to the problem of food insecurity, interventions that are relevant to the context of Tanzania and that seek to respond to such critical concerns of the people must be adopted. The argument of this study is that for the Christian faith communities to be relevant to the wider society, they must address those broader issues that create the context of food insecurity, hence placing life at risk. Such an obligation is based on the fact that God planted Garden of Eden first so that He can provide food for His people. Food is the medium of growth both physically and spiritually. Furthermore, throughout the history of Israel and early church history, food is seen as an important aspect in creating health communities. In this regards, Christian communities of faith can play a vital role in building local food and farm webs that will help end hunger and ensure food security for all. It has been found that the agricultural sector in Tanzania has the potential to address the problem of food insecurity because it plays a significant role in the national economy. However, environmentally friendly methods of farming, concern for the care of the environment among the smallholder farmers and the impact of the unjust economic system need to be taken into consideration. Thus, the next chapter is devoted to discussing the life sustaining response to the issue of food security in the context of environmental degradation and the unjust economic order.

CHAPTER THREE

LIFE SUSTAINING RESPONSES TO FOOD INSECURITY

3.1 Introduction

This chapter sets out to articulate various responses to food insecurity. It does so by highlighting approaches that have been employed in the effort to address global issues of food insecurity. It will then discuss Tanzania's agricultural approaches to food insecurity and environmental degradation**,** pointing to a more life sustaining approach to agriculture. Finally, the chapter will conclude by pointing out how African life sustaining approaches can be helpful in addressing the problem of food insecurity and environmental degradation in an unjust economic order.

3.2 Agricultural approaches that address food insecurity

Hezell (2002:2) points out that food insecurity have existed since time immemorial. Due to the incidences of food insecurity in various places in the world, a number of efforts have been undertaken to address this situation, but these have not solved the problem. In recognition of this failure, Tudge (2007:1) says "we are failing miserably to feed ourselves properly while also wrecking the fabric of the world itself". This suggests that most of the approaches to agriculture that were adopted were not sustainable enough to address food insecurity in the long run. Instead, those approaches were ruining the natural resources of the earth.

Tudge (2007:1), however, believes that the way the world is created and functions as an ecological system implies that human beings are capable of feeding themselves to the highest standard of nutritious food and can do so effectively forever. He asserts (Tudge 2007:1) that there are two popular agricultural approaches that have been adopted: industrial agriculture and green revolution. Industrial agriculture is one of the approaches used to increase productivity in agriculture. This approach arose with the industrial revolution era. Mugambi (2000:77) asserts that industrialisation is a mode of production based on machinery rather than manual labour. This marked the shift of the mode of production from manual labour to more mechanized methods of production. The so-called industrial revolution era (1750-1850) was characterized by invention and installation of machinery in most economic sectors, starting with the textile and agricultural sectors (Mugambi, 2000:77). It is this revolution that transformed peasants to farmers, and those who were not able to keep up with the new model

of production (smallholder farmers without the funds to purchase and operate machinery) became highly marginalized.

Another example of the approach that was adopted especially in India is the 'green revolution'. Given the situation of food insecurity in the developing countries, the United States (US) President's Science Advisory Committee report concluded that the scale, severity and duration of the world's food problems are enormous (Hezell, 2002:2). The report extended a call for massive, long range and innovative efforts to improve food security. The recommendation from this report gave birth to another approach to agriculture known as the 'green revolution', with the aim to increase food production in the developing countries, especially Asia (Hezell, 2002:2). It is said that the Rockefeller and Ford Foundations took the lead in the process of helping to transfer and adapt scientific advances to better suit the environmental and social situations in the developing countries (Hezell, 2002:2). They began by investing in research on rice and wheat, which were the most important food crops in the developing countries of Asia. This research led to the breeding of improved varieties of rice and wheat, combined with the expanded use of fertilizers and other use of chemical inputs (Hezell, 2002:3).

According to Green (2008:127) the 'green revolution' emerged from two parallel initiatives. One was the widespread adoption of new rice and wheat varieties combined with the use of chemical fertilizers in largely irrigated farms. The other one was the state investment in roads, irrigation systems and other infrastructure and institutions that ensured stable prices for farmers. These two major initiatives spurred significant success in reducing rural poverty in Asia and India, although many farmers went heavily into debt, and the environment was seriously affected (Green, 2008:128).

The term 'green revolution' is used to describe technological responses to worldwide food insecurity, which worsened in the period after World War II. It is this technological response which transformed earlier farming practices in many regions of the developing countries (Fitzgerald and Parai, 1996:1). Although 'green revolution' is praised for increasing food production, hence contributing significantly to improved food security in many parts of the world, it is also accused of not being environmental friendly and not bringing about economic justice (Fitzgerald and Parai, 1996:1).

Hezell (2002:3) argues that the 'green revolution' must carry the blame for severe environmental degradation, increased income inequality, inequitable asset distribution, worsened absolute poverty, and points out that it was mainly employed by big farm owners since they had better access to higher quantities of irrigation water, fertilizers, seeds and credit. Fitzgerald and Parai (1996:5-6) accuse the 'green revolution' of reducing the natural fertility of the soil, as well as being responsible for the salinization of agricultural soil, the reduced capacity of the plants to resist diseases, and depleted and polluted water. This is because the 'green revolution', for example in India, was highly mechanized, chemically concentrated and irrigation oriented.

In general, in the course of addressing food insecurity, industrial agriculture and the 'green revolution' represent approaches to agriculture that do not do justice to the environment and do not favour vulnerable groups of people in the communities. This suggests that modern agriculture is deficient. It does not sustain life; rather it endangers life sustainability, as Green (2008:128) puts it,

> Modern agriculture has changed the world to a world of exhausted and eroded topsoil, scarce water, irrigation-induced salinization, water systems polluted by pesticides and fertilizer run off and reduced biodiversity. Without mentioning global warming, agriculture and forestry produce an estimated one third of all greenhouse gases.

Graham (2009:60) asserts that the proper response to food insecurity is to implement an economic system that adheres to the sustainability of life i.e. the indefinite preservation and maintenance of conditions necessary for a healthy life now and for future generation. These conditions include agricultural approaches that are eco-friendly because they are capable of sustaining the ecosystem that in turn supports production of food production.

3.3 African indigenous life sustaining approaches to agriculture

According to Martinussen (2004:155), a life sustaining approach to farming is important, given the need to restore and retain the integrity of creation, which is necessary for life. As Bauckham (2010:1) puts it:

> we all share and depend on the same world, with its finite and often non-renewable resources. Since the world belongs to God by creation, redemption and sustenance and that he has entrusted it to humankind, made in his image and responsible to him, we are in the position of taking care of the whole creation.

Green (2008:129) suggests that in the context where modern farming has failed to achieve the common good in terms of food production and preservation of the environment, a sustainable agricultural approach is the option. This approach to agriculture should try to unite the best of the traditional and the new farming technologies. It should seek to integrate natural biological and ecological processes, minimize the use of non-renewable inputs, and make productive use of farmers' knowledge and skills and their ability to work together. While Green advocates for sustainable agriculture, the United Nations Environmental Programme (UNEP) (2008:20) asserts that various terms have are used regarding agricultural systems working for greater sustainability in both pre-industrial and industrialized countries.

However, UNEP argues (2008:20) there has been a continuing debate on whether agricultural systems using those approaches can really be classed as "sustainable". This calls for a need to clarify what exactly is meant by sustainable agriculture. A sustainable approach to farming must be one that aims at making the best and most appropriate use of the environment. UNEP (2008:20) emphasizes that for an agricultural system to be truly sustainable; it has to at least comply with four principles. First, it should seek to integrate biological and ecological processes into food production. These include nutrients cycling, nitrogen fixation, soil regeneration, predation and parasitism. Second, it should also seek to minimize those non-renewable inputs that cause environmental damage or that harm the health of farmers and consumers. Third, it should make use of people's capacity to work together toward solving common agricultural and natural resource problems such as watersheds, irrigation, pests, and forest and credit management. Finally, as noted by Green (2008:129) it should not ignore the knowledge and skills of indigenous farmers to achieve better food production.

Mundy (2006:5) points out that to have a more sustainable approach to agriculture is of paramount importance especially in the context of food insecurity and environmental degradation exacerbated by the current unjust economic order. Food production has been declining and environmental degradation has increased, largely due to low soil fertility and the high cost of inputs and seeds. These are compounded by the removal of government subsidies by the SAPs. Such a situation calls for sustainable agriculture to improve soil

fertility by using a range of techniques to maintain and improve it, such as organic fertilizers, mulching, cover crops, agroforestry, crop rotation and multiple cropping. Unlike conventional agriculture, adds Mundy (2006:6), sustainable agriculture is also expected to integrate mixed and biological methods to control pests, which cost less and that do not result in pest resurgence. Lungu (1999:12) highlights that African indigenous farmers are well knowledgeable about ways of farming which do not harm ecosystem. These include residue management, green manures, grass compost system, soil monitoring and diversification. Small holder farmers are confident working with these familiar methods and with materials that are locally available. In addition, Youm, Gilstrap and Teetes (1991:7) argue that instead of small holder farmers being forced to adhere to the modern farming methods which are too costly for them, the use of simple and more economic methods such as resistant varieties, biological control and improved traditional farming methods to control pests, should provide a better alternative to farmers in the developing countries.

All of these principles suggest that approaches to agriculture that can qualify to be sustainable need to focus on life sustaining farming methods as opposed to the methods of modern farming which focus on the sustenance of profit.

3.4 Eco-agriculture: A life sustaining approach to farming

Eco-agriculture entails methods of farming that are environmentally friendly. They are those that do not employ industrial inputs to increase productivity, and use natural resources and local available material to control insects that infect crop production. Graham (2005:138) explains further how eco-agriculture is helpful as he says:

> Eco-agriculture results in healthy, vibrant rural communities, fertile topsoil in sufficient quantities, an agricultural system safe and secure from vicissitudes, necessary inputs supplied locally, appropriate agricultural technologies, and use of renewable resources. Also it enhances physical health of people in the rural communities. It is an agricultural system that is generous to non human creation, and agricultural systems that sustain future generations. All these are the necessary components of true sustainable agricultural approaches, but are not always realized or are undermined by the dominant mode of agricultural production.

Life sustaining approaches to farming systems needs to be developed in order to enable provision of consistent and safe food security, vital sustainable communities and human and

environmental health. Scholars (Graham, 2005 and Scherr and McNeely, 2007) have shown the eminence of eco-agriculture as one of the life sustaining approaches to agriculture that are capable of addressing the two pertinent issues: food insecurity and environmental degradation in an unjust global economic order.

Being environmentally sensitive, eco-agriculture is one of the most promising and life sustaining approaches to agriculture. It pays attention to both environmental issues and efficient food production while improving the livelihoods of the communities that practice this method. While Devlin and Zettel (2009:iii-iv) argue that eco-agriculture aims at producing enough food without damaging the productive capacity of the environment, Scherr and McNeely (2007:8) point out that eco-agriculture is a holistic and sustainable approach to agriculture that focuses on three key areas namely, quality food production, improvement of the livelihood of the community and consideration of nature.

According to the Lightfoot and Noble (2009:209) eco-agriculture entails bringing ecological perspectives into farming systems. It requires an understanding of the ecological setting of the farm, which is necessary for the productivity of the farm. Explaining further, Lungu (2009:1) emphasises that ecology in agricultural terms refers to the cultivated land and its adjacent surrounding plants contained or grown in and around the farm, soil microorganisms, and all animals associated with it, including human beings. As such, an ecologically sound agriculture is one with overall health that allows it to be resilient and productive over both the short and long terms, while ensuring that the environment is protected. This is important because of the fact that "to sustain crop yield does not only require the supply of plant nutrients, but rather the maintenance or even improvement of the soil fertility. Fertile soil gives consistently good produce without additional fertilizers" (Lungu, 2009:2).

Buck, Uphoff and Lee (2007:20) have pointed out that eco-agriculture is a strategy that is capable of addressing three critical issues: environment, food security and livelihood of the communities. It is a strategy to feed people and save the environment at the same time. Furthermore, Scherr and McNeely (2007:7) argue that in view of the way the environment has been damaged in various parts of the world by using irresponsible agricultural approaches, there is a need to develop and devise other approaches that are more life sustaining. Such approaches should seek to integrate food production and conservation of the

environment which supports food production (Scherr and McNeely, 2007:7). It should also aim at improving livelihood of the community. Eco-agriculture is one of the more life sustaining approaches to agriculture as it explicitly recognizes and seeks to honour the economic and ecological relationship and the mutual interdependence among agriculture, biodiversity and ecosystems (Scherr and McNeely, 2007:8).

Worthington (1993:57) concurs with Scherr and McNeely by articulating that eco-agriculture is an attempt to use the knowledge of how an ecosystem works and apply this to agriculture in order to try and increase the biological efficiency and reduce environmental problems. According to Worthington (1993:57) what makes this approach more life sustaining is that it acknowledges the interrelatedness of living things, with each other and the rest of the environment. In addition, Scherr and McNeely (2007:9) describe how the eco-agriculture approach to farming works. It relies on six basic strategies of resource management. These include minimizing agricultural waste and pollution, managing resources in a way that conserves water, soil and other elements of nature and using a crop/grass/trees combination to imitate the ecological structure and function of natural habitats (Scherr and McNeely, 2007:10). Other strategies which focus mainly on aspects of nature are: minimizing the destruction of and enhancing the conversion of natural areas; protecting and expanding larger patches of high quality natural habitats; and finally developing effective ecological networks and corridors (Scherr and McNeely, 2007:10).

This is relevant to all agricultural activities, in order to accomplish three goals: increase and improve food production, save the environment and improve livelihood. It is a matter of striking a balance and reconciliation between the three (Scherr and McNeely, 2007:11). In this way the objective of producing enough food while devising an agricultural approach that does not threaten the long term health of the resource base (environment) will be realized (Devlin and Zettel, 1999:iii). In essence, it entails a universal and timeless partnership with the earth, a partnership which binds human beings together with each other and with the earth. Cooperation with, not exploitation of, the earth is what is required (Devlin and Zettel 1999:iv). As Devlin and Zettel put it "The current world concern is to promote an eco-agricultural approach to farming. Eco-agriculture begins and ends with an appreciation for the connectedness of all living things, from the smallest micro-organism in the soil to the crown of creation-human beings" (1999:ix). This is true because successful farming begins

with living soil. Eco-agriculture provides, therefore, an opportunity for farmers to practice ecological soil management and also farm the land in a more sustainable way (Lungu, 1999:12). Sustainable agriculture leads to a sustainable society. A sustainable society needs to ensure that: rates of resources exploited do not exceed the rates of regeneration, rates of resource consumption do not exceed the rates at which renewable replacement can be phased into use and the rates of pollution and waste disposal do not exceed the rates of their harmless absorption. Compromising any of these conditions puts well-being of communities and planetary life at grave risk (Cavanagh and Mander, 2004:85).

3.5 Types of eco-agriculture

According to Worthington (1993:50), there are at least four types of farming methods that are sensitive to the environment (eco-agriculture). The first one is called the *biodiversity farming* methods. Standing for biological diversity, the term is used to explain the degree of various forms of life within a given ecosystem or entire planet. In agriculture, it is used to describe the relationship between agricultural crops and environment. In order to have a long-term consistent crop production, issues of soil health, water quality, air quality and so on must be taken into consideration in the production process. It calls for balanced farming methods. The second type of eco-agriculture is *permaculture*, which initially stood for *permanent agriculture* and later expanded to include *permanent culture* (Worthington, 1993:56). It is an approach to designing human settlement and farming systems which are modelled after the relationships found in nature. It adheres to the interconnectedness and interrelatedness of life on earth, rather than on the strictly biological concern which form the basis for modern agriculture. The focus of permaculture is to create a constant productive system that provides for human needs and is sensitive to environment. It is based on the principle that every element in the system feeds another element. It is based on the philosophy of working with nature rather that working against nature. Its agenda is to assist smallholder farmers to become more self-reliant through the design and development of productive and sustainable gardens and farms (Worthington, 1993:57). There are three core values that stand at the heart of permaculture design and practices. These include *earth-care* which entails recognising earth as a source of all life and that the human being is not apart from the earth but an integral part of it. Another core value is *people-care* which requires supporting and helping each other to live in ways that harm neither human being nor planet, and cooperating to develop a healthy society. The final core value is *fair-share* which entails using the earth's limited

natural resources in ways that are equitable, wise and for the common good of all (Worthington, 1993:57).

The third type of eco-agriculture is called the *low input farming* method. According to Diver (2010:12) this is one of the sustainable agriculture methods. It is among the alternative farming systems whose methods are adoptable to the practice of sustainable agriculture. Low input farming focuses on reduction, not necessarily elimination, of chemical fertilizers, insecticides and herbicides. Farmers are encouraged to adopt these practices primarily to reduce cost, but also to minimize damage of the environment. A low input farming method uses synthetic inputs below the rate commonly recommended by the extension services, and yields are maintained through greater emphasis on traditional farming practices. It operates under three principles. It must be economically viable, environmentally sound and socially acceptable (Worthington, 1993:58 & Diver, 2010:13). The fourth type of eco-agriculture is the *organic farming* method which will be further discussed in the next section. All of these are aimed at ensuring the basic needs of human beings are met, making the most efficient use of non-renewable resources and on-farm resources, sustaining the economic viability of the farm operations and finally enhancing the quality of life for farmers and society as whole. Although all four types of eco-agriculture can be adopted by farmers, for the sake of this study organic farming is the most suitable for smallholder farmers in the case of Tanzania.

3.6 The organic farming approach

The major reason why an organic farming approach is preferred is because the other three types of eco-agriculture (biodiversity, permaculture and low input) still contain some elements of conventional farming methods (Diver, 2010:16). This is particularly the case regarding the use of synthetic fertilizers. Worthington (1993:65) argues:

> Organic farming is producing agricultural products naturally, without using synthetic chemicals and genetically modified organisms to influence the crop growth or livestock production. The main focus behind this system is producing a safe, healthy food for consumption, while cutting the agriculture based environmental pollution down to zero level.

Hine and Pretty (2007:15) also assert:

> organic farming represents a deliberate attempt to make the best use of local natural resources. The aim of organic farming is to create an integrated, humane, environmentally and economically viable agriculture system in which maximum reliance is put on local or on-farm renewable resources and the management of ecological and biological process.

The fact that organic farming encourages non-off-farm inputs makes it feasible for smallholder farmers in the rural communities of Tanzania. Organic farming is more eco-friendly, seeking to produce safe healthy food, hence safeguarding the lives of people from health hazards and the environment from pollution. Most of the challenges faced by the world today, food insecurity and environmental degradation being among them; need a different approach in order to attain long-term solutions. According to the United Nations Conference on Trade and Development (UNCTAD) (2008:iv), organic farming is one of the approaches to agriculture that has the potential to contribute to creating livelihood opportunities for the poor, as well as bringing back smallholder farmers into the food supply chain. It also ensures decent and healthy labour conditions, at the same time improving food security, cutting down greenhouse gas emissions from the agricultural sector and delivering economic development to developing countries. It is the most life sustaining approach to agriculture, and would be of great benefit to countries like Tanzania which rely heavily on agriculture for their socioeconomic development. Organic farming can be easily accessible and applicable to the situations of the majority of the population, especially those living below the poverty line, and those who live in rural areas and who directly depend on agriculture for their food and livelihoods (UNCTAD, 2008:iv). Since agriculture in Tanzania has not been able to keep up with the growth of the population for the last few decades, it has been suggested that organic farming could offer an opportunity for Tanzania to reap the economic, social and environmental benefits resulting from the growing markets for organic products (UNCTAD, 2008:iv). The major short coming of the organic farming is that it is good for small scale farming due to its nature of reliance on tillage, ineffective pest, dependence on the animals and other natural materials etc. However it's potential to improve soil quality cannot be underestimated.

Organic farming becomes more important in Tanzania because most of the factors affecting agricultural productivity are associated with total degradation of environment. Examples of

these include low land productivity due to the application of inappropriate technologies of farming, insufficient knowledge of agronomic practices and the use of synthetic inputs (UNCTAD, 2008:17). Organic farming is a more life sustaining form of agriculture, it is a holistic production management system of natural resources that seeks to promote environmentally, socially, and economically sound production of food (UNCTAD, 2008:17). Its focus is to promote and enhance agro-ecosystems' health and stability. It emphasizes the use of ecological management practices that use local resources in preference to the off-farm inputs. In organic farming, deliberate efforts are made to make sure that agronomic biological and mechanical means are integrated into agriculture in an environmentally user-friendly way, as opposed to the intensive use of synthetic materials (UNCTAD, 2008:18-19). Organic farming works for a more and well-balanced and continuous agro-ecosystem with the greatest possible use of locally renewable resources, taking into account animal and human welfare, and social economic aspects of the food productions systems (UNCTAD, 2008:19).

Speaking about "*Sustainable African Agriculture*" UNCTAD (2009:1) argues that using strains of crops that require agro-chemical fertilizers, pesticides and irrigation may increase yields in food production. However, this is done at the expense of the environment since it causes a dramatic loss of agro-biodiversity as well as traditional knowledge of farming that is in harmony with the agro-biodiversity. African agriculture can only be sustainable if based on the strength of the environment, i.e. land, local resources, indigenous plant varieties and indigenous knowledge. In addition, conditions necessary for such sustainable African agriculture are the proliferation of biological diverse smallholder farms and the limited use of agro-chemicals (UNCTAD, 2009:1). This can be referred to as a sustainable African 'green revolution'. The mission of such a 'green revolution' should be centred around increasing food production by using sustainable agricultural practices that minimize harm to the environment and build up soil fertility (UNCTAD, 2009:1). This has not been enhanced for the national good, however, due to the global economic system that requires all countries to submit to the rule of the free market. Based on this principle, organic farming will increase productivity and improve food security. It will also reduce dependence on external inputs, and increase earnings while offering a range of environmental benefits (UNCTAD, 2009:2).

3.7 African roots of eco-agriculture and organic farming approaches to agriculture

Organic farming methods are not new in most African countries, including Tanzania. Zacharia (1999:15) points out that the introduction of modern farming methods sidelined the indigenous farming practices that were ecologically based and environmentally user friendly. This resulted in environmental degradation and lowered food production. Furthermore,

> Traditional cropping systems exemplify the greatest dependence on natural vegetation and natural cycles for the supply of plant nutrients for crop production. In these systems, all crop nutrients are released from organic matter. They, thus, exemplify elements of an ecological approach to soil management and agriculture at large (Lungu, 1999:3).

The author suggests that the African traditional farming system was not only ecologically based, but more importantly, it contained organic farming elements, and consequently, it entailed a more balanced approach to agriculture that gave eminence to environmental conservation. As Mbwile argues,

> In traditional agriculture, African indigenous farmers used locally available materials to control the majority of pests. Knowledge of plant protection grew over many generations and was modified to fit local problems. The protective plant materials were selected from their garden and were therefore adapted to the local agro-ecosystems. Although farmers had limited knowledge about invisible pests, they were quite knowledgeable about more visible pests. Plant extracts and ash were often used at various levels of production to control pests. However the production was at subsistent level with no enough surplus (Mbwile, 1999:189-190).

In summary, there is evidence of the existence of eco-agriculture and organic farming systems in Africa prior to the introduction of modern farming methods from Europe and America. The three quoted scholars have done extensive studies on sustainable agriculture in Africa, Zacharia as research associate at Mart Uyole in Tanzania, Mbwile as an agricultural extension officer in Mbozi, Mbeya, also in Tanzania, and Obed Lungu as a member of the Department of Soil Science at the University of Zambia (Devlin and Zettel, 1999: vi). All three agree that the eco-agriculture, especially organic farming that is being advocated by American and European scholars today, have precursors in African traditional farming systems.

Organic farming is said to be a more life sustaining method of agricultural practice because it depends on techniques such as crop rotation, green manure, compost and biological pest

control in order to maintain soil productivity and pest management on the farm. Thus, organic farming sustains soil, ecosystems and people in general.

Research conducted in Kigezi Uganda East Africa shows that in the years between 1940s and 1960s, the agricultural community of Kigezi employed organic farming methods in which plots were cultivated for no more than two years followed by at least four years of rest (Ngambeki *et al,* 1999:29). Through such practices soil remained fertile and productive as well soil erosion was prevented. As a result most of the land was covered with beautiful and flat green terraces (Ngambeki *et al,* 1999:31). This indicates that the Kigezi community was well known for hard work and skills in using intensive agricultural production methods that are environmental friendly.

In Tanzania, organic farming has long history. Apart from it being used by smallholder farmers prior to colonial period, in 1898 an organic garden was established in Peramiho Ruvuma region to produce various types of vegetables. They used organic principles that included the use of manure and soil conservation (Bakewell-stone, 2006:36). According to Ngambeki *et al* (1999:31), by the early 1980s the farming practices of this community began to change dramatically. All the terraces were abandoned and the natural soil nutrients began to be depleted. Most of the land became bare creating a serious shortage of fuel wood and poles. Excessive soil erosion, sheet soil erosion and landslides were common. The Kigezi community chose to abandon sustainable farming methods for two main reasons. Firstly, sustainable farming methods were seen to be labour intensive and secondly, they had been introduced to modern farming methods that deployed industrial fertilizers and pesticides, rampant bush burning, abandonment of alternative fallow strips and plots, continuous cultivation in the same areas for a long time and deforestation without planting trees (Ngambeki *et al* 1999:37). Many smallholder farmers opted for these new modern farming which were not environmentally friendly. This suggests that in the context of environmental degradation and food insecurity, farmers' indigenous knowledge that is environmentally sensitive should be encouraged and where possible rewarded (Ogega, 1999:281). As is pointed out in chapter 4.4 this is about responsible stewardship commanded by God, which includes tilling and keeping the earth in order to preserve its capacity to sustain all forms of life.

Increasingly, there is a growing realisation that organic farming can contribute to the improved livelihoods of the rural communities. Furthermore, organic farmers are motivated by health and environmental concerns. To the large extent, adoption of resource-efficient farming system such as organic farming is driven partly by the current pressure on the natural resources including the threat to biodiversity such as bushfires, dependence on agrochemicals, deforestation, introduction of exotic species and hybrid seeds, lack of proper water management without mentioning the high price for artificial fertilizers (Bakewell-stone, 2006:37). Generally, organic farming in Tanzania is viewed by a number of stakeholders as a more sustainable form of farming which improves soil fertility, provides health products and reduces costs. Additionally, organic farming is being conceptualised as modified traditional farming. Since traditional farming has low or no artificial inputs and frequently incorporating mulching, intercropping, and other organic practices, conversion to organic farming may involve slight modification to farm management e.g. fire avoidance Bakewell-stone, 2006:42).

Recent research by Mjunguli (2004) scanned the market for organic produce. His study revealed that there is a range of organic agricultural products in Tanzania. Further, it was revealed that subsistence farmers in Tanzania are more receptive to organic farming form of agriculture since it is quite compatible with their subsistence farming practices. Furthermore, Warwick (2008:2) and Enriquez (2000:12) argue that when smallholder farmers adopt organic farming methods, using local natural resources to increase production their lives get improved and the environment also is sustained. Another example is an organic farming Project in Karagwe District in Tanzania which may serve as evidence of the potentials of organic farming. This is the collaborative project between smallholder farmers in Karagwe District in north-western Tanzania and the development organization known as "Community for Habitat Environment Management" (Chema, 2009:45). The project initiated organic farming by offering training to smallholder farmers. The training involved several 2-day modules. These modules included soil fertility, integrated pest management, soil and water conservation, Agroforestry and crop management. As a result, 80% of the farmers who had attended the training adopted mulching, 76% adopted mixed cropping, 66% applied manure, and 40% took up composting. Mulching was popular because it reduced the amount of work needed for weeding. Fifty farmers shifted to organic farming completely. As the farmers'

yields increased and income rose, their neighbours started to copy this technology (Chema, 2009:53).

In the Mkuranga District in the East Coast region of Tanzania, more than 478 small holder farmers have opted for organic farming (Bakewell-stone, 2006:47). Overall, increased awareness of organic farming has contributed to sustainable natural resource management, household food security and improved incomes, hence improving the livelihoods of rural communities. Organic agriculture was found to bring more livelihood benefits among the local groups, where the emphasis was first on building human and social capital at the local level. Food security was enhanced by increasing household food availability and raising children's nutritional status (Bakewell-stone, 2006:48).

Although organic farming possesses huge potential for improving livelihood of the people and enriches the natural environment as the above examples demonstrate, it is not without limitations and challenges. According to Bakewell-stone (2006:51-52) organic farmers face a number of challenges. These include climate, labour requirements, pest and diseases, land tenure, distance from markets, infrastructure, credit, education and other inputs. Due to the labour intensive nature of organic farming, burning and deforestation are commonly used practices which threaten soil fertility and water resources management. In addition, for the same reasons, people easily slip back into applying modern technologies when they become discouraged with organic farming. Furthermore, when much of the emphasis is on farming for export or for market, organic farming will exploit water supply with sophisticated irrigation systems which endangers the natural environment. Apart from all these shortcomings, ecological farming methods such as organic farming, if practiced according to its principles, "allows farmers to take responsible control of the natural environment and escape dependence on purchased inputs, improving output while at the same time reducing risk and inequities which have been associated with the high technological approach to agriculture" (Bakewell-stone, 2006:51).

3.8 Conclusion

This chapter set out to highlight African life sustaining approaches to agriculture that have the potential to ensure food security and environmental conservation. To do this, a general overview of agricultural approaches first had to be presented, briefly explaining previous and

present agricultural approaches in Tanzania that have exacerbated food insecurity and environmental degradation. This led the chapter into a discussion of life sustaining approaches that are employed in the effort to address food insecurity and environmental degradation. Two main approaches to agriculture in these efforts have been identified: industrial agriculture which took place in parts of the industrialized countries and the 'green revolution' which took place in some developing countries, including Asia. Although the two approaches to agriculture are praised for alleviating food insecurity problems in many parts of the world, they are largely accused of being destructive to the natural environment because of their use of large machinery, and because of their expansion of cultivated land and their use of synthetic inputs to the extent of degrading the productive capacities of the natural environment which supports food production. Since independence, Tanzania has been making great effort to comply with modern methods of farming, whereby people were encouraged to use synthetic inputs that depleted the natural environment. As a result of this, over the long term, food production has in fact been declining and much forestry is being cleared as a strategy to look for more fertile land. In order to reverse this situation, it has been suggested that more sustainable agricultural methods must be used.

In the context of Tanzania, where the agricultural sector plays a major role in the country's economy and where the agricultural sector is dominated by smallholder farmers who are incapable of accessing most of the modern farming methods, organic farming approaches are more suitable, having proved to be more sustainable and life sustaining. One of the reasons for this is that organic farming focuses on the increase of food production, the improved livelihood of the communities especially in the rural areas, and the preservation of the environment. The other reason is that these approaches, though advocated so much by northern scholars, have their roots in traditional African farming systems, since African farmers used these methods prior to the introduction of modern farming techniques. The fact that these methods require the application of locally available resources makes them feasible and appropriate to smallholder farmers. What is needed though is to combine this indigenous knowledge and skills with key scientific discoveries so that these methods can work better and be more productive in the context of the global economy. For this to happen, impetus is required to encourage governments in this direction. The next chapter examines theological approaches to the environment and how they have influenced environmental thinking among communities of Christian faith, and the society at large.

CHAPTER FOUR

THEOLOGY, ECONOMICS AND THE ENVIRONMENT

4.1 Introduction

The previous chapter highlighted key African indigenous life sustaining responses to food insecurity and environmental conservation. This chapter intends to analyse some of the theological trends that have contributed, to some extent, to the existing unsustainable relationship between humans and nature as they engage with economic activities which place precedence on profit making while ignoring issues of food security and environmental conservation. This will be done by briefly discussing some Christian (as one of the faith communities) approaches to the environment, followed by the identification and analysis of those theological aspects that are unhealthy. Finally the chapter will demonstrate how these theologies contributed to unsustainable relationship with natural environment. Although the Bible has much to say about the relationship between human beings and the rest of creation and the responsibility to care for the entire creation, the environmental crisis has rarely been part of Christian mission. To a large extent, it is because within the communities of faith, especially Christian faith community within the Sub-Saharan and Tanzania in particularly, there have been unhealthy theological aspects that have changed the way people relate to nature and hence contributed to the global environmental problem. The central objective of this chapter is to point out the need for a shift from unhealthy theologies to theologies that promote life in its fullness and that sustain creation as whole. This will lead into the next chapter which outlines key theological principles that will contribute to the formation of an African life sustaining eco-theological framework, in the effort to address issues of food security and environmental degradation.

4.2 Christian approaches to the environment

Rajotte and Breuilly (1992:3) assert; “If the planet earth is sick, the church is part of the illness.” This is largely because much of the environmental crises that the world is experiencing have its roots in the way Western societies think and work (Rajotte and Breuilly, 1992:4). The western world view has influenced the structures and traditions of the Christian church. As a result, communities of faith have been involved in unjust practices such as slavery, colonisation, the subjugation of women, conquest and the destruction of

nature through various economic activities. Communities of faith have paid little attention to the relationship between humanity and the created order (Rajotte and Breuilly, 1992:5).

According to Gnanakan (1999:122), there are three main positions that are helpful in determining the human relationship to the created order. The first is the biocentric position, which holds that the entire natural world is the centre-point of all existence on earth and must become an ultimate reference point for values and ethics (Gnanakan, 1999:122). Those individuals who take this stance relate positively to the environment around them, and value and respect the ecosystem for its own sake and not for the benefit of human beings. This indicates that the biocentric position offers a call to respect and honour everything in the biosphere (Gnanakan, 1999:123).

The second position, according to Gnanakan (1999:122) is the theocentric one, in which the human/nature relationship is placed alongside a strong conviction and commitment to God as the creator and the one who continues to sustain the creation. In this position, everything finds its existence, meaning and purpose in its relationship to God (Gnanakan, 1999:123). Apart from the fact that God created everything, it is also essential to understand that everything was made to accomplish a distinct purpose: God's purpose. This position takes into account the biocentric or eco-centric reality. It also underlines the conviction that human relation to nature revolves around the transcendent God (Gnanakan, 1999:124).

The third position is anthropocentrism which places humanity at the centre of creation and in which everything in the universe is seen and understood in terms of human values and interest (Gnanakan, 1999:122). Gnanakan (1999:122) argues that this position emerged as a result of the post-enlightenment era when there was a strong conviction that human beings could totally conquer nature for their own survival and achieve the betterment of their own kind without any intervention from God the creator. This position became part of the modern way of life especially in the Western societies. Most advancement that emerged after the enlightenment, such as an ever-expanding economy, industrialization, progress and affluence, were backed up by this position (Gnanakan, 1999:123). As a result, these advancements were accepted as fundamental characteristics of modern society.

Reflecting on this, Mwikamba (2000:11) maintains that based on the anthropocentric position, 'mother earth' has been badly exploited in the name of development. Although the scientific and industrial revolutions have relatively increased the standard of life, at least in the Western societies, their disastrous side effects on the earth community and on ecological systems in general, cannot be ignored. Additionally, Conradie (2011:5) points out that although ecological damage has been caused by many factors, Christianity has played a distinct role which must not be underestimated, especially through the Biblical and theological interpretation given by western culture. It is the Judeo-Christian doctrine of creation and salvation, with its radical distinction between creator and created world order, which has been encouraging disenfranchisement (taking away the rights) of nature. Based on this background, argues Conradie (2011:5), Christianity must engage in earth keeping because it is also guilty of playing a role in the ecological damage that human beings have collectively caused. Christianity, therefore, is called "...to cast its light on the unjust foundations on which the present economic order was built" (Aalbersberg, 2010:185). However, before doing that and in order for communities of faith to raise a credible prophetic voice to the world and its unjust systems, adds Aalbersberg (2010:185), "...Christianity must take a close look at its own role in the crisis and its causes, both as collective and individually."

While many scholars argue negatively about the anthropocentric position, Horrell et al (2010:122) offer a different perspective. Horrell et al (2010:123) argue that anthropocentrism is not all that bad especially when it is used as instrumental anthropocentrism. According to Horrell et al (2010:123), God placed human beings at the centre of creation because humanity has a significant role to play in the process by which God is taking care of the whole creation. This means that human beings are meant to be a tool to serve (care) and not to destroy or exploit the rest of creation. To emphasize that anthropocentrism has a positive side, Horrell et al (2010:124) put it in this way:

> However, we hold that a chastened and humbled instrumental anthropocentrism which strongly resists exploitative anthropocentrism can appropriately remain a key to an ecological theology not because human beings evidently have unique power to affect most of the rest of creation in this planet but because it is human beings whom we address and whom we look for action in relation to the future of creation.

In this regard, the following section discusses three key theological concepts that demonstrate how Christians relate to the created order, especially through the existing unjust global economic order. These are the theology of dominion, the theology of stewardship and the theology of salvation. The rationale for the identification of these theologies is informed by the introduction of the missionary church in Africa, which was characterised by a western anthropocentric interpretation of the Bible and a negative attitude toward African cultures and traditions. Reflecting on the Finnish mission in Namibia, Munyika (2004:316) contends that missionaries treated the Bible as unerring and needing no interpretation, other than that allowed by the western church and culture. Munyika (2004:316) further argues that western missionaries located the truth of the word of God within the church as an institution, represented in the hierarchical western Christian tradition. Not only that, missionaries undermined traditional and cultural aspects of African life through which they had experience God (Munyika, 2004:317).

Furthermore, adds Munyika (2004:326), their understanding of salvation was that of the non-material salvation. In their teachings, much emphasis was put on the salvation of the soul. On the same note, Utuk (1997:58) infers that the mission church dichotomized between spiritual inner Christendom as opposed to human made external Christendom. Although they emphasised the purity of the heart and action, the missionaries were not positive in terms of their attitude towards the non-Christian world (Ofiong, 1997:58). Mshana (2011:178) adds that the legacy of the traditional understanding of mission - situating mission in purely spiritual experience and evangelism for conversion - has diverted faith communities from adequate engagement with the wider earth community. This background forms the basis for the selection of these three theologies (that are discussed below) from the theological discourse that has evolved from dishonest interpretation either of the Bible or Eurocentric theology. These theologies negatively affect the human relationship to the entire creation, which leads to the degradation of the environment.

4.3 Theology of dominion

According to Boff (1995:43), through an emphasis on the theology of dominion, Christianity has changed human relation to nature hence humankind has developed an unsustainable relationship to nature. The evidence of this can be seen through the practice of economic activities that perpetuate the ecological crisis. Theology of dominion has had a decisive influence in Western societies (Boff, 1995:44). There has been a claim that the theology of dominion is divinely based because humankind is created in the image of God hence placing humanity above all creation to rule and dominate. This is how Christianity has interpreted God's command in the two creation narratives in the book of Genesis, 1:28 and 2:15. Lynn White (quoted in Conradie, 2011:5) argues that unlike other religions which emphasize the sacredness of nature, Christianity, through its theology of dominion, draws a sharp distinction not only between the created order and the creator but also between human creatures and non-human nature. By so doing, Christianity has supported the idea that the world was created primarily for the benefit of human beings. It allows humans to undertake ruthless and selfish exploitation of nature.

Additionally, Alokwu (2009:246) points out that the distinction between human and non-human nature enhances dominion and exploitation over nature. Some early Christian thinkers echo this. For example St. Augustine, says Alokwu (2009:246), taught that there is no place for nature in the kingdom of God because the kingdom of God is designed only for spiritual beings and eternal souls. Also Irenaeus suggested that the whole purpose of creation was to provide a place for human life and to bless human life, while Origen insisted on the spiritual world as a Godly terrain, terming the physical world as "a demon's place" (Alokwu, 2009:247). Furthermore, Mcfague (2001:72) points out that based on the theology of dominion, Western societies have viewed the planet earth as a corporation or organization, with the collection of individual human beings drawn together to benefit from this corporation or organization by the optimal use of natural resources (Mcfague, 2001:72). This Western worldview differs from other worldviews, especially the African one, which sees the planet earth more like an organism or a community that survives and prospers through the interrelationship and interdependence of its many parts, both human and non-human. Among these two worldviews, the first one is injurious to the created order and to poor people, while the second view has the potential of being healthier for the planet itself and all its inhabitants (Mcfague, 2001:73).

Furthermore, Conradie (2011:81) argues that the domination of dominion theology is the result of humanity not being obedient to God's command. Christianity has been using God's command in Genesis 1:28 selectively, leading to the misinterpretation of God's divine order. The theology of dominion emerged from this misinterpretation and has paved the way to human beings' exploitation of nature (Conradie, 2011:82). Rasmussen (1997:118) asserts that due to the changed relationship between human and created order, environmental destruction has been the result of human economic activity that does not take into consideration the whole notion of the conservation of environment. This is the case because for most human beings, value exists not in nature but in human creativity and in the use of resources to further human advancement (Rasmussen, 1997:119).

In order to restore a sustainable relationship between humans and nature, Rasmussen (1997:110) introduces the concept of 'great economy' to refer to the economic activities that maintain a positive relationship between humanity and non-human nature. It is an economic system which adheres to the integrity of creation (Rasmussen, 1997:111). Any type of human economy is always ultimately a subsystem of the 'great economy', since all economic systems are completely dependent upon the planet's ecosystem as whole. All human economic production and consumption, as well as human reproduction, are not sustainable if they do not fall within the borders of nature's regeneration (Rasmussen, 1997:111). This suggests that expanding the human economy results in diminishing the earth economy or 'great economy', and in turn affects not only the lives of human beings and non-human nature, but also deprives the lives of the future generations. In this way, Rasmussen (1997:231) emphasizes that the dominion command must not be exaggerated and become a licence for the exploitative subjugation of nature. It should reflect a humble participation with God in God's ongoing creation process. The charge to "till and keep" entails responsibility to care, serve and preserve. Human beings are not exploiters of the earth; rather they are earth keepers for the common good of all.

4.4 Theology of stewardship

"We came especially for harvest festival, but the sermon ruined it! What's it got to do with harvest?" (Gorringe, 2006: xi). This was the reaction from one of the parishioners who came to church to celebrate the annual harvest festival. The reaction was in response to the fact that the preacher of the day had preached about the injustices of the world trade systems, while the parishioner was expecting to hear about the importance of giving thanks to God for all of His provisions, especially for Christians as stewards of God. This reaction reveals how Christianity has narrowly used the term stewardship in connection with giving offerings to God.

Conradie (2011:82) traces the origin of the term stewardship to the Greek words *oikonomos* or *oikonomia*, which entail responsibility and accountability for planning and administrating the affairs of the household (*oikos*). Thus, the theology of stewardship originally suggested a more harmonious and environmentally sensitive relationship between humanity and the whole creation (household). In other words, humanity should be regarded as stewards, caretakers, priests, custodians or guardians of creation (Conradie, 2011:81). Alokwu (2009:253) further maintains that *oikonomia* (stewardship) is also a root of the words 'economics' and 'ecology'. This again suggests a positive relationship between the two. It is about bringing all the resources at the disposal of a household into efficient use for the betterment of all its members.

This is why Conradie (2011:82) emphasizes that stewardship must express merciful practices. Conradie (2011: 82) also suggests that the metaphor of the shepherd can be used to symbolize the concept of stewardship because a good shepherd nurtures, sustains and protects the flock, but also uses the sheep as a food source in a responsible way. This means that the task of stewardship is the one of 'tending the garden' (Conradie, 2011:81). Such an understanding consolidates environmental care and stresses the need to use resources responsibly, manage them carefully, and to demonstrate a committed and hardworking attitude towards God as the owner of all, since natural resources do not belong to human beings, but are only entrusted to them for their care and service (Conradie, 2011:81). Generally, the term stewardship carries with it the whole idea of an earth community where all creation forms the web of life. In order to sustain life there must be sustenance of creation as whole.

Although the metaphor of stewardship appears to be environmentally sensitive and has moved thinking away from the theology of dominion with its strongly anthropocentric (human-centred) position, it is not immune to criticism. Alokwu (2009:253) argues that the term stewardship still implies that God is like an absentee landlord, while humanity is landlord steward and hence is positioned above all other creation. For Alokwu (2009:253) this indicates that such narrow theology of stewardship is unable to counter the flawed interpretation of the *imago Dei* (humanity as the image of God), so that humanity is still understood to be acting on behalf of God. To a degree, adds Alokwu (2009:254), this then upholds a hierarchical dualism in which humanity is viewed as superior to other life forms and which then justifies the manipulation and abuse of the natural world since humanity continues to consider itself as being above all else, rather than just being part of the web of life created by God.

Concurring with Alokwu, Conradie (2011:87) admits to the deficiency of the theology of stewardship in the context of the environmental crisis. Conradie (2011:87) further argues that the concept of stewardship implies aspects of a managerial attitude to creation, as well as an androcentric and Eurocentric approach. Therefore, it cannot tackle the present day ecological challenges and vision of the place of humanity as part of creation. The human being, as understood in the theology of stewardship, is a 'sanctified technocrat', because it implies humanity's superiority, and justifies the lordship and mastery of humanity over other creation (even of some human beings over others), rather than encouraging fellowship and companionship (Conradie, 2011:87).

Thus, in the way the concept of stewardship has been taught, it assumes humanity's supremacy among the species of nature. It also assumes that the humanity/nature relationship is based on a triangular relationship of God-fellow human beings-nature (Conradie, 2011:88). This encourages humans to view themselves as distinct from and superior to non-human creation, whereas in reality humanity is utterly dependant on nature. Not only that, but more importantly, human beings are completely and inherently part of nature. They are not simply living 'on earth'. In this way theology of stewardship retains the anthropocentric position as the theology of dominion (Conradie, 2011:88). The term stewardship continues to place humanity above all other created order. In addition, the theology of stewardship does not

recognize that the ecosystem has evolved for ages without human assistance and that it embodies capacities to sustain life on earth (Conradie, 2011:88).

As regards the inter-human relationship, the theology of stewardship also reflects a type of hierarchical thinking by sometimes focussing on those who are in the positions of social authority and financial power over the world's poor, landless and marginalized. Hence the latter are not the primary focus of the theology of stewardship. This theology reflects a hierarchy of power, based on an unjust relationship to nature, which is neither biblically nor theologically sound (Conradie, 2011:90). Given this deficiency, Gorringe (2006:132) argues that because environmental degradation which leads to food insecurity is linked to the current unjust and dominant economic model of the free market/globalised economy, there is a need for communities of faith to demonstrate their concern and solidarity for environmental conservation. It remains true, argues Kim (2006:13) that God created the order of life, which is for all living beings, based on the integrated and interdependent ecosystem as the basis of life. Therefore, asserts Kim (2006:13), the present situation needs to be transformed in order to work for both social justice and eco-justice, based on the belief in God as the sovereign initiator of the covenant of life with all living beings. Any system of thought, including theology, should have the objective of promoting life in order for it to be true and credible (Kim, 2006:14).

4.5 Theology of salvation

According to Kusumita (2001:33), Christian theology of salvation is exclusive. Salvation is understood as being an individual or personal experience with the Lord and saviour Jesus Christ. More importantly, it focuses on the human spirit rather than on material things (Kusumita, 2001:33). Traditionally, to be saved suggests that one goes to heaven after death or purgatory, while not being saved means that one goes to hell. Such, emphasis on personal salvation and heaven ignores the reality of human beings' interconnectedness to other creation (Kusumita, 2001:34).

Oduyoye (1991:40) argues that such unbalanced soteriology has its origin in the missionary policy of 'come apart and be saved' as they strived to form Christian villages in Africa. According to Munyika (2004:294), the contrast between heaven and earth, as emphasized by missionaries, has led people to view this world as evil, and as something to be endured but

not embraced. Such an understanding encourages people to escape from this evil world and focus on heaven's benefits. In other words, people were distracted from paying attention to daily life challenges and responsibilities (Munyika, 2004:295). Because the material world was worthless, the exploitation of its resources did not matter and could be undertaken without considering the consequences.

Believers are not encouraged to make the world a better home to live in; rather they are being prepared for the life in another world (Munyika, 2004:195). Oduyoye (1991:40) contends that conversion to Christianity should not only mean making the individual fit for future life, but should also be seen as a process to make the world a more suitable home in which Christ should establish his just kingdom. According to Kaunda (2010:26), in the African context, a personalised dualistic kind of theology represents a Western tradition which is different from the African world view. The former is strongly focussed on individualism, while the latter is community centred. Shutte (2004:49) states that "...so powerful was the influence of Christianity on the cultures of Europe that it was easier to make a mistake of identifying Christianity with European cultures."

Therefore, the Western understanding and expression of Christianity became viewed as the only one, sidelining other interpretations, especially those that relate to the African context. Western missionaries who came to Africa were informed by Western modernity and by the scientific revolution which was characterised by the universal claim that human beings (particularly Western human beings) have the power of reason and rationality in making life better. They believed that the scientific revolution was an important step in achieving the mastery of nature (Kaunda, 2010:26). Based on their worldview, the Western pattern of Christian thought upheld a sharp dichotomy between body and soul, heaven and earth and also between humanity and nature. It is from this grounds that the theology of exclusive salvation – i.e. salvation for Christians alone – emerged as a dominant view (Kaunda, 2010:27).

As it has been indicated in the discussion above, the three key theological aspects tend to over-emphasize the unique place of human beings within the created order. This has led to the assumption that the non-human world exists only to serve humankind. That is why Karl Marx believed that Christianity supported the rise of capitalism in the industrial countries and

that through its teachings Christian theology has often legitimized and institutionalized oppression and structural injustices (Mwikamba, 21-28). In this way, these theological aspects support and are working together with the current unjust global economic system which works for the accumulation of wealth for the few at the expense of the environment and the majority of the people in the world who are poor. Such theological aspects need to be interrogated and reinterpreted to suit God's purpose of saving and sustaining life on earth. It is in this context that there is a need for a more African life sustaining eco-theological framework, to guide faith communities and the wider society in addressing issues of environmental degradation and food insecurity.

4.6 Conclusion

This chapter discussed some of the key unhealthy theological aspects within theological discourse that have influenced the creation and upholding of an unsustainable relationship between human beings and the entire created order. This was done first by offering an overview of Christian approaches to the environment. Then three theological concepts that underpin environmental thinking were identified and discussed - namely the theology of dominion, the theology of stewardship, and the theology of salvation - indicating how these theologies have influenced the unsustainable relationship to nature. It has been argued in this chapter that many of the crises the world is experiencing have their roots in the way Western societies think and work. This, to a large extent, is because these societies have developed from the structures and traditions of the Christian church, which has been complicit and embedded in unjust systems, such as colonialism, slavery, the subjugation of women, and the conquest and destruction of nature. It has been demonstrated that the three theologies have changed the human/nature relationship.

This is the case because they tend to over-emphasize the unique place of patriarchal ideology in the created order, based on the stance that human being was created in the image of God and was commanded to have dominion over all other creatures. In this way, humans feel they are the master of everything in the world. This has led to the over-exploitation of natural resources, the depletion of ecosystems which support life on earth, and environmental degradation which increases the problem of food insecurity. This suggests that there is a need to develop an alternative system. In this regard, this study puts forward an African life

sustaining eco-theological framework that will serve as a tool in addressing issues of food insecurity and environmental degradation. This will be further articulated in the next chapter.

CHAPTER FIVE

TOWARDS AN AFRICAN LIFE SUSTAINING ECO-THEOLOGICAL FRAMEWORK

5.1 Introduction

In the previous chapter, the three theological aspects that have negatively influenced the human relationship to nonhuman created order were identified and discussed. It is the task of the present chapter to draw together all the strands of this study. Given the fact that the way people perceive the world determines how they do things**,** the formulation of an African life-sustaining eco-theological framework must be rooted in the African understanding of the world and nature. This will form the basis for an African life sustaining eco-theological framework, in an effort to respond to issues of food insecurity and environmental degradation in Tanzania. There are six principles of an African life sustaining eco-theological framework which will be discussed below. These include: the African worldview, a life-centred vision, a focus on sustainability, an understanding of salvation as holistic, an African ethic of care and a recognition of an ecumenical earth community.

5.2 An African worldview

As has been indicated in the previous chapters, food insecurity is the result of three reasons: the unjust global economic order, modern farming methods and the lack of concern for environment. The unjust global economic order has changed the way people relate to nature, through modern farming methods which degrade the environment. The way people relate to the natural environment shows that there is a lack of sensitivity to the environment which supports food production and sustains life on earth. Because the environment has been degraded, its capacity to support food production is reduced, hence exacerbating low food production which in turn creates a context of food insecurity.

Therefore, an African life sustaining eco-theological framework that will help faith communities to address these issues has to be rooted in an African world view. This is necessary, argues Hessel (1996:2) because environmental degradation and food insecurity stand at the top of other social injustices that are causing massive suffering not only to human beings, but also to other creatures. This suggests that everyone must be involved in

addressing the situation, and work towards saving the natural world – on which human survival depends.

Pobee (1979:49) uses the phrase *cognatus ergo sum* to explain the African worldview. This phrase can be translated 'I am related by blood, therefore I exist' or 'I exist because I belong to the family'. Unlike the individualistic view of the West, the African worldview is based on the idea of community in the sense that a person depends on other persons to be a person (Pobee, 1979:49). In the African context, community consists of the living, the dead and the future generations. Therefore the family and community relationships determine the view of the person. According to Shutte (2001:12) such a worldview is a community-based African worldview. A person becomes a person through persons within the wider community. This means that a person depends on personal relationships with others to exercise, develop and fulfil those capacities that make a person (Shutte, 2001:12). Initially the person is only potentially a person. This suggests that an individual's life is a continual process of becoming "more of a person" through interaction with others. Personhood comes as a gift from others (Shutte, 2001:12). Hence the idea of community as an interpersonal network of relationships is a fundamental value in the African worldview (Shutte, 2001:12). It shows that in the African understanding, reality is not seen as a world of things, but rather as field of interacting forces some of which are harmful to life on earth (Shutte, 2001:12). Although the human being occupies a central place in this universal field, each person is a focus of shifting forces, changing as they change and existing only as part of different relationships that bind all creation together (Shutte, 2001:12). Concurring with Shutte, Gitau (2000:41) asserts that human beings are not isolated creatures according to the African worldview. Human beings are always seen as part of the universe which is full of other creatures. The appearance of humanity and other creatures and their subsequent existence depends on God. Furthermore, Buthelezi (1987:95) emphasizes that the African worldview is based on the wholeness of life. All life is sacramental and therefore the world is seen as a meeting place of the human being and God, as a single community that sustains life of all.

Explaining this further, Balcomb (2004:68) points out that in the African worldview there is a sense of kinship with nature where every creature is an interdependent part of the whole. The African worldview recognizes that humankind is not alone in the universe and that in the universe there is no dichotomic relationship between the physical and the spiritual. In an

African perspective, the physical world is a vehicle for spiritual affairs (Balcomb, 2004:68). Oduyoye (1991:93) affirms this by arguing that the creation narratives in the Bible show that the universe belongs to God who created it and that there is an interdependence and interconnectedness between God's universe and God's people. There is a clear indication, argues Oduyoye (1991:93), that nothing belongs to human beings but that the whole world belongs to God and human beings depend on the entire creation for their survival. Human beings pollute the world, especially when they ignore God's voice and misuse both the natural order and their fellow humans in the process of pursuing their own interests (Oduyoye, 1991:93). Since the world was created orderly from chaos, the misusing and exploiting of natural resources will result in returning the world into the chaos from which it was orderly created (Oduyoye, 1991:94).

The concept of community which characterises the African worldview is a comprehensive concept. It does not only speak about the community of human beings. It includes creation as a whole. According to Setiloane (1986:9) the term community in the African context is used mythically. In Africa, myth serves as a mirror through which people's consciousness of themselves surfaces. It is through myths that Africans are able to penetrate the inner recesses of the soul of people where they can find answers for many of their peculiar communal behaviours and views about life (Setiloane, 1986:9). Therefore, in the African context, 'community' means the unity of life. It is about handing on life and sharing. Life is the first link which unites the members of the community (Setiloane, 1986:10). This includes the environment which supports life that people share and cherish together. In this sense, the community is more than just a collection of individuals. It refers to people who are breathing together, united among themselves, including even the very nature of their being. Further, Ramose (2009:309) asserts that the African concept of wholeness applies also to the relationship between human beings and the rest of the created order.

Kaunda (2010:28) and Shutte (2001:6-7) point out that an African worldview was distorted by the arrival of the western missionaries and other colonisers, who subjugated African people in various ways. The education and domination by missionaries was meant to subject Africans to the western world view (Kaunda, 2010:29). This suggests the need to now lift up the African worldview in order to see how it can form a basis for an African life sustaining

eco-theological framework for tilling and keeping the earth in the context of food insecurity and environmental degradation.

5.3 A life-centred vision

In order for an African worldview to be relevant in the formulation of an African life sustaining eco-theological framework, it has to be coupled with the life-centred vision. In African perspective, God is not homogeneous. However, God is perceived as all-pervading reality. God is a constant participant in the affairs of human being, the initiator and sustainer of all forms of life (Oduyoye, 1997:12). God created all living beings and seeks to sustain life on earth. A life-centred vision is necessary for an African eco-theological framework for two reasons. First, life is central to God's creative purpose of the entire world. Second, the world is at the stage where the life of all beings is under serious threat by the domination and exploitation of human creativity and advancement (Kim, 2000:13).

Life is a God-given gift for all. In order to affirm God's gift of life to all creatures in the midst of pain, suffering and destruction caused by the unjust economic order, it becomes imperative to develop a life-centred vision (Robra, et al, 2001:86). Explaining this further, Conradie (2005:256) contends that a proper respect for life must emerge from the context of the grassroots experience of threats to life. These include the context of violence, conflict, unjust structures and environmental degradation. This suggests that the desire to sustain life needs to be based on the everyday reality of life, as Conradie (2005:256) puts it:

> A life-centred vision is thus born within a context of a struggle for survival amidst threats of life. It emerges from the experiences and perspectives of those for whom life is denied and in solidarity with these struggles. It seeks a life which is more than biological existence. It is life in a sense of self-sufficient, cultural, spiritual, political and economic sustainability. Life is understood here concretely to include land, houses, work, food, health, education, environment, participation in social life and cultural and religious celebration.

In such struggle for survival, a life-centred vision affirms faith in the God of life and condemns all types of idols of death. The communities of faith in this context must emerge as new life in the entire household of God and advocate for establishment of the conditions necessary for life for all (Conradie, 2005:256 and Kim, 2000:14).

God's purpose is for life to be supported by the entire creation. In order for life to be sustained, there needs to be a healthy environment on earth, since environment has the capacity to sustain life as it is explained here:

> Forests are God's agents in sustaining life on this earth, rapid deforestation and reforestation which does not respect bio-diversity is causing ecological catastrophe. The Goodness of God's earth is threatened by the proliferation of nuclear reactors and the false propaganda that nuclear energy is clean and green. The promise of the fullness of life offered by Jesus is contradicted by the misguided notions of growth and progress manifested in big development projects. These threats are driven by the structural greed of a microscopic minority (WCC, 2011:1).

This shows that life is in danger due to the fact that the natural environment which sustains life has been highly degraded. God created life in the world and He seeks life to be sustained. However, issues of food insecurity exacerbated by the degraded environment have become a threat to life. In the article titled *Affirming life for the disregarded,* Robra et al (2001:83) have argued that global systems which exploit the environment and exacerbate food insecurity for the sake of bigger profits, have been perceived by some people as a means for salvation while for the majority (and for the earth itself) it represents a new expression of hell, characterized by the unjust distribution of power, wealth and resources on the planet (Robra, M, Manchala D and Sarah Anderson-R, 2001:83). Those who benefit from it would like to convince people that there is no alternative (TINA) to the globalized market economy which threatens life on earth. In the context where life is being put at risk from various angles, it is worth noting that an African eco-theological framework takes seriously the question of sustaining life on earth. Putting life at the centre will help in learning more about processes of community building while asking what social and religious arrangements are required to sustain life in the present situation (Robra, M, Manchala D and Sarah Anderson-R, 2001:84).

Kim (2000:115) points out that the idea of a life-centred vision is rooted in the biblical wisdom where everything that can destroy the wholeness and interconnectedness of life is rejected. This is well depicted in the creation stories and in the coming of Jesus Christ so that all can have life in abundance. In this way biblical wisdom affirms life in all its fullness (Kim, 2000:116). This suggests the essence of a life-centred vision and mission of communities of faith. For the life-centred vision to be achieved there has to be a serious struggle against the current context of modern and high technological culture which threatens the sustenance of life. There is also a need to embrace wisdom contained in religions and

culture. This affirms the need for embracing an African worldview and life-centred vision. Moreover, there is a need to take seriously all the wisdom offered by the history of nature (Kim, 2000:116).

In addition, Gill (2007:313) argues that life-centred vision will allow acknowledgement of one's life and also the life of the other as sacred gifts from God, hence influencing the way people make their decision on various issues, particularly economic activities. Not only that, such acknowledgement will lead to acknowledgement of responsibilities to the giver and sustainer of life. There are two levels of life; the gift of biological life by creation and the gift of life in Christ through his incarnation. All these necessitate human gratitude for God's gracious and precious gift of life on earth. Explaining this further Gill (2007:314) asserts:

> Biological life, ordinary life is the basis and receptacle for eternal life. Any attempt to glorify eternal life at the expense of biological life should be resisted as a temptation. Failure to recognize this lies at the base of ecological peril, social injustices, and making mess of the ordinary life. Christians especially need to recognize more readily the nature of ordinary life, of the life of all as the gracious gift of God's creation. That would provide them with the basis for an understanding of the way of life that is more Christian.

In developing a life-centred vision, much emphasis should be directed toward the holistic understanding of life rather than understanding life in pieces, a view which puts life at risk. Bujo (2009:281), in his article *Ecology and ethical responsibility from African perspective,* asserts that in the African context life is perceived holistically. There is no dichotomy between sacred and secular. The two are regarded to be in close relationship within the entire universe. It is believed that there will be no total realization of life unless there is a peaceful co-existence with the creation (Bujo, 2009:281). This suggests that Africans can easily be understood in terms of their basic attitudes towards life. A life-centred vision will influence a positive human relationship to nature. Furthermore, argues Bujo (2009:282) all beings in the universe have been endowed by God with a certain force, capable of strengthening and sustaining life.

Concerned with promotion of life, Daly and Cobb (1989:65) argue that putting life at the centre will offer an opportunity to develop a new economic model that recognizes the essentiality of life on earth. Such an economic model should seek to support and promote life within the entire earth community. According to Kim (2000:117) a life-centred vision will

enable adherence to God's mandate to keep and sustain life. It will also enhance sovereignty of the people's economy of life rather than maximization of profit under uncontrolled market processes.

Life-centred vision, on the other hand, will ensure proper management of a household in order to ensure that all members of the household have access to life sustaining resources on an equal basis, hence sustaining life in its all dimensions. A life-centred vision will focus on the quality of life by qualifying wealth accumulation. Even when considering market issues, a life-centred vision looks from the perspective of the total needs of the community. The market is considered as a tool that must help to serve life through a just allocation and distribution of resources (Daly and Cobb, 1989:158). Moreover, sustaining life implies that all people must be given an opportunity for direct participation in the promotion of common life.

Due to the lack of life-centred vision, Daly and Cobb (1987:139) argue, the current global economic system is no longer in the hands of states or nations and hence is not promoting life. Rather, it is in the hands of transnational corporations (TNCs) who do not have any particular accountability while hindering the participation of others in the economic system. In this way TNCs pose a threat to the livelihood of the majority. TNCs have become sovereign actors in the economy with unrestricted freedom to gain maximum profits without respect for the integrity of creation. They are taking over national sovereignty, inhibiting a nation's ability to protect and promote life for all (Kim, 2000:118). It is in this context, Robra, M, Manchala D and Sarah Anderson-R (2001:87) argue, that life has to be the priority for any activity. A life-centred vision should seek to articulate and protect the integrity of creation as a complex web of life where life and resources are equally shared for common good of all. This will provide more opportunities to learn about strengthening the ecumenical dimension of life and building a community from below. For this reason Daly and Cobb (1989:366) emphasise that in order to redirect the economy to the community, with the purpose of honouring and respecting life for all, the economic system must be built based on three key principles: small communities, scaled to human needs and care and honour of the planet earth. This will result in the sustainability of life.

A life-centred vision in the current context where there is an unjust relationship to nature requires special attention to be paid to the experience of those people who live at the margins of the society. In the context of Tanzania, this includes smallholder farmers in the rural communities. Their experiences will provide new insights and impulses to criticize the present order which threatens life. Robra, M, Manchala D and Sarah Anderson-R (2001:86) have argued that for many years theological reflection has been part and parcel of an imperialist paradigm, supporting the quest for territorial control and domination. In Tanzania, a life-centred vision should be owned by the communities, and thus must start from the question of how to build a sustainable community from below.

The idea of a life-centred vision has its roots in decades of reflection by the World Council of Churches (WCC) on the creating of a just, participatory and sustainable society, as well as the work done in the areas of peace, justice and integrity of creation (Robra, M, Manchala D and Sarah Anderson-R, 2001:87). Therefore, a life-centred vision should be based on the real life experience. In these experiences, much attention is given to life-giving forces that can nurture and build up sustainable communities (Robra, M, Manchala D and Sarah Anderson-R, 2001:88). In the context of an unjust globalized world, a life-centred vision seeks to develop an alternative way of protecting, sustaining and promoting life starting with the experience of those who are at the margins of society.

For a life-centred vision to flourish it requires decentralization of Christianity, re-reading the Bible and theology. It also means revisiting ecclesiology and church practices. A life-centred vision must focus on exposing key life-threatening practices in the present economic order and create safe spaces for sharing stories that affirm life, while grappling with issues of patriarchal powers and all types of domination, economic injustice or environmental destruction in ways that are inter-contextually and inter-culturally inclusive (Robra, M, Manchala D and Sarah Anderson-R, 2001:97). In this way God's message of salvation will come to mean not only fullness of life for the human community, but it will also mean the restoration of life in the entire earth community.

Looking at the situation of environmental degradation that the world is experiencing today, Niwagila (1997:163) argues that it is a sign of life destruction. This suggests that the entire human community is called upon to join hands in the struggle for sustaining life. Life cannot

be sustained if a few people survive at the expense of others and creation as whole (Niwagila, 1997:164). Because God created the world and life from chaos, the consequences of the current ecological crisis will be the transformation of the world, life and order, into disorder and chaos. Creation and life are inseparable. Nature in the creation stories was not meant to be conquered, manipulated and exploited in order to satisfy the greed of humankind but to be its partner for sustenance of life. Therefore, the destruction of the environment is the destruction of life. Exploiting the natural environment for individual gain is like exporting life and importing death (Niwagila, 1997:177-178). It is from this basis that the essence of developing and advocating a life-centred vision stems. Christianity is about life restoration, life protecting, life affirming and life honouring in all its dimensions. The incarnation of God in Jesus Christ, and his ministry to the people who are at the margins of society attest to this truth.

5.4 A focus on sustainability

An African worldview and life-centred vision are not self-sufficient in the formulation of an African life sustaining eco-theological framework, especially if they are not focused on sustainability. Therefore a focus on sustainability is another principle that needs to be taken in consideration when formulating an African life sustaining eco-theological framework for tilling and keeping the earth in the context of environmental degradation and food insecurity. Blackmore and Reddish (1996:246) assert that sustainability has to do with the continuity of both life and the environment that supports life on earth. It suggests that any development and economic activity should ensure the continuity of life for all, now and for future generations. This is crucial because a healthy natural environment ensures the sustainability of life on earth. The environment should be seen as a base for life where humans interact with other living organisms (Kim, 2000:4). The entire creation should be treated as a base for all living beings. God created earth as a garden of life for all (Kim, 2000:11).

Daly and Cobb (1989) noted that a focus on the sustainability principle requires human beings to recognize the limits of natural resources and to conscientiously engage in promoting the wellbeing of future generations. According to Msafiri (2007:103), sustainability has to be based on the intrinsic interconnectedness between development and environment, leading to an extremely new model for development in an ecological framework, which serves as a guiding principle in eco-justice (Msafiri, 2007:104).

Sustainability calls for the integration of environment and development issues for an improved and sustainable life, better protected and managed ecosystems, and a safer and more prosperous future. This would mean that sustainable or authentic development is a condition for the planetary common good (Msafiri, 2007:104). It suggests that authentic development must be people-centred and life-centred. It must seek a good quality of life and dignity for all.

Bethuel (1993:2) has pointed out that in the African context the natural environment plays a significant role in people's day to day lives and needs. It is a finite resource upon which the human being is dependent for sustenance of life, i.e. food, space to live and spiritual and physical wellbeing of the family, the community and nation as a whole. This means that the natural environment is central to life and without it there can hardly be life. From the biblical perspective, stories of creation show that life began and life is sustained by and through the natural environment. It is the environment that offers humanity the possibility of a dignified life (Bethuel, 1993:2).

Bethuel (1993:3) asserts that sustainability is a concern of God. This is the reason why the environment was created first, before humankind, so that humankind can sustain the gift of life. Sustainability of life and the environment is the responsibility of all human beings. Taking an example of land as one aspect of the natural environment, Bethuel (1993:3) points out that in order to maintain sustainability the land was possessed communally, so that it would sustain the life of all. In this way land was seen and understood as a means to create a livelihood and it was left to the daily care of those who used it in that way and for that purpose (Bethuel, 1993:66). Sustainability is necessary because human beings share kinship with the created environment, imbued with the divine. Apart from it being a sustainer of life, it is also the basis of people's identity and group consciousness (Philpott, 1999:13). Therefore, farming is more than just a productive activity as it is understood in the contemporary world order. It is an act of culture, the centre of social existence and a place where personal identity is forged (Bethuel, 1993:66).

Brueggemann (1977: xii) argues that in ancient Israel, sustainability of life was embedded in the natural environment which was understood as a symbol of fertility and life and a place of hope for covenant people. Philpott (1999:13) adds that such understanding was based on the

belief that "Earth is the Lord's and the fullness thereof, Psalm 24:1". This means that to harness the blessings and fertility of the natural environment there must be a sustainable relationship with God and between humans and nature. The sustainability of the natural environment depends much on the preservation of the right and positive relationship with Him, and with humanity and the entire created order. Kim (2000:1) asserts that the Bible speaks of the Promised Land (environment) which is full of life, i.e. flowing with milk and honey, implying that it is a gift of God and a garden of life for all living beings which must well be sustained hence no political or economic power should plunder or dominate or exploit the natural environment to the detriment of life on earth.

The role of humankind is to sustainably take care of it, not to plunder and exploit it. Unsustainable use of the natural environment is contrary to God's will of tilling and keeping the earth, hence invites calamity and threats to life as whole. Environment forms the essence to life on earth (ELCIN, 1997:20). Philpott (1999:51) summarizes the critical importance of the sustainability of life and environment pointing out that a healthy natural environment is the pre-condition of human existence. No one will survive or even exist without a sustained healthy environment. A sustained healthy natural environment provides all that is needed for human existence, provision that cannot be obtained anywhere else. The natural environment cannot be manufactured or cannot be reproduced. The existing environment is all that people are ever going to have hence the focus on sustainability is of critical importance.

Blackmore and Reddish (1996:249) argue that the focus on sustainability of life and earth is helpful in ensuring that all activities, economic, political and social, are governed by the principle of sustainability in the following ways: First, it will help in addressing issues of poverty because poverty increases pressure on the environment. It will also encourage internal growth stimulus in most developing countries. Second, it will influence the shift in growth quality, that is, from unlimited growth to growth that is less materialistic, less energy-extensive and more equitable in its impact (Blackmore and Reddish, 1996:249). Third, it will facilitate meeting the basic needs of the people by increasing food production without causing serious damage to the natural environment. Fourth, it will also help lay strategies to manage population growth which goes together with improving the quality of life, raising income and working for more equitable distribution of the population between rural and urban areas (Blackmore and Reddish, 1996:249). Fifth, the principle of sustainability will

help enhance conservation and the resource base in terms of the natural environment (Blackmore and Reddish, 1996:249). Sixth, it will increase the capacity for reorientation of technology and risk managing. It means that the capacity for innovation will be enhanced while paying particular attention to the impact of technological development on the natural environment. Seventh, it will foster the merging of environment and economic activities in decision-making, where economics and ecology are not seen as opposing one another but rather as interlocking (Blackmore and Reddish, 1996:249).

Blackmore and Reddish (1996:248) further argue for eight conditions that can create a conducive environment for sustainability of life and creation as whole. These include: a political system that allows citizen participation in decision-making, an economic system which is capable of generating surpluses, technical knowledge, and a self-reliant and sustainable social system that offers solutions for the tensions arising from disharmonious development (Blackmore and Reddish, 1996:248). Others are: a production system that respects the obligation to preserve the ecological base for development, a technological system that can search continuously for new solutions, an international system that fosters sustainable patterns of trade and finance and finally, an administrative system which is flexible and has the capacity for self-correction (Blackmore and Reddish, 1996: 248).

In the context of Tanzania where 80 per cent of the people depend on farming for livelihoods, the principle of sustainability will change the way people relate to the natural environment. It will remind smallholder farmers that sustainability of the environment determines sustainability of life on earth. Thus, plundering, exploiting, degrading and polluting the natural environment poses a threat to life in general (Daly and Cobb, 1989:103). Christianity has given eminence to the creation of humankind in the image of God as the basis for venerating the position of human beings above all creation. Mwikamba (2000:32) infers that sustainability is about living in harmony with the entire creation. The manipulation of nature is not the mission of the human being. The central mission of the human being is to acknowledge and preserve the natural environment which supports all forms of life. In this way, human beings will be in a position to execute the mission of shepherd, nurse and protector of the natural environment which sustains life.

For sustainability to be fully realized, there must be solidarity and fair consumption of resources. According to Msafiri (2007:92) solidarity is necessary for sustainability of life and the natural environment. Solidarity is cognisant of two elements. It emphasizes unity and cooperation among all human beings and calls for a positive relationship between humans and other creation (Msafiri, 2007:93). Solidarity that enhances sustainability is more than an emotional gesture of empathy. It goes beyond to a determined commitment to the common cause. It recognizes the responsibility for other people and creation as whole. It is based on the gospel of Jesus: one offers true commitment to one's neighbours' wellbeing and is ready to lose oneself for the sake of the other. In the current context where there is a greater need for an alternative economic vision which is people-centred, solidarity embraces all components of the earth community i.e. humanity and the biosphere (Msafiri, 2007:94). It calls for an indivisible ecological solidarity with nature as whole. This is necessary in the contemporary context where tilling the earth has damaged the environment and exacerbated food insecurity hence threatening the welfare and future survival of life on earth. Ecological solidarity demands true discernment and the fundamental opting for life in its entirety (Msafiri, 2007:95).

In order to sustain life and earth, people must be encouraged to opt for this new ecological solidarity which promotes life and environmental sustainability (Msafiri, 2007:96). In this context, opting for the poor should also be understood holistically to also mean opting for environmental conservation, to sustain life on earth. Such an option offers guaranteed security not only for life at present, but more importantly for future generations of both human and other creatures. Given that the natural environment is central to life, it is particularly important for communities of faith to be conscious of their common origin, heritage, destiny and relationship to nature in order to sustain it. This suggests the need to move beyond hyper-economic desire and put life at the centre. Hathaway and Boff (2010:165) have pointed out that moving beyond economic growth in the context of food insecurity and environmental degradation requires the change of basic categories of thought. There is a great need to change the 'mind-set' and learn to live in harmony and sustainably with the natural environment.

Apart from solidarity, a focus on sustainability can also be enhanced by the fair consumption of natural resources. It is true that the role of natural resources is to fulfil the multiple socio-

economic and human needs. However, every human being must have access to enough resources to ensure a good quality of life (Msafiri, 2007:102). Over-consumption of natural resources does not only impact negatively on the ecological system, but it also deprives people's right to access resources for basic needs. It also destroys life on earth. According to Beckford (1972:183), a good example of this deprivation is the plantation economy which tends to use large amounts of land that could have been used by many smallholder farmers to sustain their lives. As result, most smallholder farmers are pushed towards marginal land or they become casual labourers in the plantation (Beckford, 1972:184). This goes against the idea of fair consumption of natural resources. Every individual and the community as a whole are obliged to promote life on earth (Msafiri, 2007:103). A lifestyle based on sufficient or fair consumption agrees with a development model which is opposed to a lifestyle of consumerism. Further, human beings are called to care for and respect an environment which is life giving. Finally, humanity should recognize that environmental conservation is a critical task because it has a bearing on the economy and politics as well as on spiritual wellbeing (Msafiri, 2007:105-6). Therefore, the principle of sustainability is enhanced by solidarity and fair consumption of natural resources. Thus, keeping the earth in a sustainable manner should be the focus of any faith community that claim to be a witness of God the creator and sustainer of life on earth. As the WCC (2011:3) puts it: "We are called to witness in the context of deforestation, global warming, pollution, natural resource depletion; species extinctions and habitat destructions that are affecting the whole community of creation especially forest communities."

5.5 An African ethic of care

In order for an African worldview, a life-centred vision and a focus on sustainability of life and environment to flourish, an ethic of care as opposed to domination is necessary. According to Shutte (2009:97) an African ethic of care comprises values, attitudes, feelings, relationships and respect of the other. To a large extent, an African ethic of care begins with the attitudes one has towards the other. It is based on the idea that 'everyone matters'. It has to do with seeing the other as 'one among us'. Boff (2008:14) further argues that care is more than an act, a moment of awareness, a moment of zeal, and a moment of devotion. It is about an attitude of activity, an attitude of concern, an attitude of responsibility and an attitude of affective involvement with the other. It involves giving attention and showing concern for the other. It is about maintaining a vigilant and basic approach towards the physical state of

the other in its various dimensions. All of these form a part of the material, personal, ecological and spiritual attitude toward the other. Care is at the root of being human and it is there before anyone does anything. It is a fundamental mode of being which cannot be removed from reality. Without the aspect of care, the human being ceases to be human and becomes unstructured, wastes away, loses its bearings in life and dies. In life, if a human being does not do with care everything it engages in, it will end up jeopardizing itself and destroying that which is around it (Boff, 2008:15). Tilling and keeping the earth implies a God-given mandate to care for the earth. Emphasizing this Boff (2008:93) states:

> Our planet earth deserves very special care. We only have this planet on which we live and have our being. It is a system of systems and a supraorganism of complex equilibrium that was woven over millions and millions of years. Because of the predatory assault of the industrial process that occurred in the past centuries this balance is about to be broken. The aggravation of this scenario and globalisation of productive processes increases the threat to and consequently the necessity of essential care for, the future of the earth.

The notion of care can be applied to all levels of society, starting with the individual level extending to the global level. Care can be made concrete by building a sustainable society, respecting and caring for the community of life, improving the quality of human life, and conserving the earth's vitality and diversity (Boff, 2008:93). Care can also be made concrete by keeping the earth's carrying capacity, changing personal attitudes and practices, enabling communities to care for their own environments, providing national frameworks for integrating development and conservation and creating global alliances (Boff, 2008:94). All these will lead to the integrity of creation through which life on earth can be sustained and a sustainable relationship between human and nonhuman nature and the entire ecumenical earth can be developed (Rasmussen, 1997 and Daly and Cobb, 1987).

As it has been alluded in chapter 4:4, the metaphor of stewardship also carries elements of care. It is for this reason that in the New Testament (NT), Christ is presented not as playing the role of the owner; rather he is an authentic and preeminent steward (Hall, 2004:43). Christ is considered to be a faithful and just steward who cares nothing for himself but for others. Since he is obedient to the one he is representing, he is not concerned about serving his own life but lays it down for the purpose of caring for the other. This shows that stewardship is about caring for the other as it is explained here:

> The metaphor of the steward is sufficiently rich and inclusive in its original conception to be regarded as an important symbol of faith with special reference to the vocation of Christians and implications for the whole anthropology of biblical tradition. For variety of reasons, however, this symbol was not selected by empirical church as it developed; for most of the history of Christianity it has remained peripheral at best, and on the whole quite inactive (Hall, 2004:71).

The mandate of God is about caring and serving life on earth. Emphasizing dominion suggests narrowing down Gods intention to care for the entire creation. In this regard Bauckham (2010:33) further asserts:

> Granted our limited place within the God-given order of creation, the power we do have is to be used with loving care for the rest of creation. Our right to use the earth's resources for human life and flourishing is strictly limited by the responsibility to conserve and by the right of other living creatures who share the earth with us. The role of caring for other living creatures is not a role the sets us above creation but a specific role that humans have within the order of creation.

This implies that God's intention cannot be summed up by a single term 'dominion'. Rather, it calls for a caring responsibility for other creatures that reflects but does not usurp God's own care for his creation. In support of this Rhoads (2009:12) says:

> Reading the Bible with new eyes, we realize that care for creation is a religious issue. We discover that care for creation is not one social issue among many for which we are seeking support. In fact, it is not even a social issue at all. Rather, care for creation is foundational to what it means to be human. Humans are but one part of creation, albeit a critical part. God has created all of life, calls it good, and values it in its own right. This means that our love of creation and our care for it is a matter of faith. Some may see it only as a social or political issue, which in some sense it surely is, but in our hearts and in our motivations and in our relationship with God we see it as a profoundly spiritual issue. God has a relationship with all of creation. We are called to care for creation. We cannot have a full and complete relationship with God apart from our sustainable relationship with the entire creation.

It is clear that when humans till the land, they are collaborating with nature to make out of it what it would not make of itself without human beings. For example, without Adam's irrigation the fruit tree in the Garden of Eden would not grow (Bauckham, 2010:33). In this way the human is there to enhance and care for creation rather than exploit it. It is evident that this is the kind of role that God intended within the order of creation (Bauckham,

2010:34). When this happens, it exemplifies positive and sustainable relations between humanity and the entire order of creation as Robra (2005:1) states:

> Seen with the eyes of faith, this world can and must be transformed: from unjust to more just relationships, from environmental destruction to care for creation, from a world marked by the deadly consequences of sin to a world open to receive life out of the hands of God. It is a miracle that happens again and again when people in the midst of severe threats to their lives celebrate in worship the presence and power of God's grace. With them we pray: "God, in your grace, transform the world.

In the process of redeeming the theology of dominion, much emphasis should be directed towards the whole notion of care. Care is something that is missing in the contemporary society, as Boff (2008:1) charges:

> We see everywhere symptoms, signs of great devastation affecting the planet and human kind. The project based on the unlimited material growth and which is globally integrated, sacrifices two-thirds of humanity, exhausts the natural resources of the earth and compromises the future of generations to come.

This shows the need for paradigm shift. It indicates that something must be changed in the practical sense. There must be a new path that must be taken. This will include the need to change daily and political behaviour, private and public lives and cultural and spiritual practices. Boff (2008:1) argues that the increasing degradation of the natural environment is a sign of crisis that has come because of human immaturity. Thus, it is now important to enter maturity and show signs of wisdom for our present and future survival. Such a new shift must be based on a better relation with the earth, inaugurating a new social agreement of care between humanity, an agreement forged in respect and for the preservation of all that exists and is alive (Boff, 2008:2).

While studies demonstrate the richness and inclusiveness of the term care, for most faith communities the concept of care has been confined to spiritual affairs. In the context of food insecurity and environmental degradation, faith communities are compelled to enter into a new phase of care and practice it in a more comprehensive manner. The principle of care needs to be liberated from certain cloying barriers. It needs to be enlarged to incorporate the radical implication that it contains, where it will be able to reveal the truth that the human creature is capable of responsibility for the entire created order (Hall, 2004:114).

The responsibility of caring is for the entire household and its resources. This broadened and comprehensive use of the term care, argues Hall (2004:127) is far more inclusive, focussing on the entire earth, and indicates that such responsibility should be carried out together (Hall, 2004:185). Furthermore, the responsibility of care must be expressed in just and meaningful political forms while being exercised in the light of not only the present situation but of the near and distant future. This is how an enlarged vision of care must work (Hall, 2004:186). At the centre of an ethic of care is the integrity of creation and the life-centred vision. The notion of integrity of creation has to do with wholeness, completeness, organic unity and the reciprocal relationship with nature. It is a call for human beings to employ wisdom and creative skill in all fields of endeavour such as industry, economics, politics, science and art in order to care for the earth (Hall, 2004:186). All of these must be characterised by a strong sense of a comprehensive and non-hierarchical ethic of care. An ethic of care will facilitate the establishment of a sustainable society where sustaining life is of critical important.

On the other hand, Kima (2005:17) introduces the term ‘creation-keeping discipleship’ to emphasize an ethic of care, where the communities of faith can act in a committed and constructive way to care for earth as a common home of all. Kima (2005:L17) argues that although the principle of care for communities of faith has been recognized throughout the history of the church, it has not been given enough priority or any disciplined application. This has been the case because spiritual matters were considered to be more important or because more focus is given to economic prosperity gospel (Kima, 2005:18). In concurrence with Kima, Rhoads (2010:12) emphasizes that taking care of the environment is the central vocation of human beings. Humankind is created to serve and preserve the entire creation, hence sustain life on earth. The care of creation has to be exercised not to serve human wants

and desires but to serve the best interests and the wellbeing of all. The core values of an ethic of care include love, justice and peace for all (Rhoads, 2010:13).

Essential care stands at the centre of the ministry of Jesus Christ who revealed to human kind the caring God, experienced as the One who cares for each hair, for bird's food and the sun and rain for all (Luke, 21:18, Matthew, 5:45) (Boff, 2008:121). Jesus also demonstrated his care for the poor, the hungry, the excluded and the sick. He was always filled with compassionate and cured many. Even at the point of dying on the cross, he still maintained his care for the two robbers who were crucified alongside him. On the whole, Jesus was a being of care, caring for the totality of life for all (Boff, 2008:121). Boff (2008:121) points out that Francis of Assisi followed in the footsteps of Jesus Christ, in that everything in his life was woven into extreme care for nature, animals, birds and plants and for the poor. With great tenderness he called everything brother and sister (Boff, 2008:122). The recent International Conference which involved Churches in the South India (CSI) and WCC (2011:1-2) had this as the catch phrase of the conference, *Forest: Our good neighbour*, to indicate how the natural environment is central for the daily life of all on earth and that without proper care of it, all lives on earth are in danger. It was emphasized in this conference that communities of faith must be taught the faith aspects of the environmental ministry (WCC, 2011:2). This is necessary because earth is a community of inter-related and inter-connected forces of life and that all human beings are mutual custodians of the entire created order (WCC, 2011:3).

In the context of food insecurity and environmental degradation, reviving and strengthening elements of care within individuals and communities of faith will increase ecological sensitivity that will reforge the alliance of sympathy and love with nature. Negative impacts of the current economic system are evident. Issues such as poor quality of life, an impoverished majority of human beings, ecological degradation and many other forms of violence are signs of the absence of care. Healing of all these illnesses cannot be sought outside humanity. Humanity needs to return to itself and rediscover its essence, which is found in care. Communities of faith need to find ways to help this care to blossom and penetrate the human sphere so that it prevails in all relationships. Care has the potential power to save life, bring justice to the impoverished and re-establish the earth as fatherland and motherland for all (Boff, 2008:144).

5.6 An understanding of salvation as holistic

This is another principle that goes together with an African worldview, a life-centred vision, a focus on sustainability and an ethic of care to form an African life sustaining eco-theological framework for tilling and keeping the earth. As it has been indicated in chapter 4:5, conventionally the entire redeeming work of God is associated with the soul of the human being. In the context of environmental crisis such an understanding need to be redeemed.

Reflecting on the Martin Luther's understanding of salvation, Nurnberger (2006:248) says:

> a human being is like a cell in the body that is nourished by the blood system. Its functions are laid down by the genes in its nucleus and coordinated with those of all other cells. This human body is maintained by blood streams but when programmed incorrectly so that its operation is no longer coordinated with those of other cells it becomes dangerous both for body and the whole system.

It is clear from this perspective that the survival of humankind is linked with the health condition of the environment as whole. It is the entire environment which makes human life flourish. God's concern for humankind is also concern for entire system that makes life possible on earth. On the same note, Bauckham (2010:145) argues that New Testament (NT) biblical stories are about the relationship between God, human beings and non-human creatures. However, in the Christian tradition, the third participant is always being minimised, degraded or forgotten all together. This long-established preoccupation and bias toward human salvation is well echoed in the following words:

> As it is stated since Augustine in the 5th century, the issue of justification by faith has dominated the interpretation of Paul in the Western theological tradition. This ensured that the interpreters of Paul were engaged in a virtually exclusive preoccupation with the relation between human being and God. What Paul taught and wrote about human relation to nonhuman created world scarcely entered the picture (Horrel, Hunt and Southgate, 2010:129).

Explaining this further, Horrel, Hunt and Southgate (2010:70-71) give an example of two biblical texts which are most ecological in the Pauline writings: Roman 8:18-30 and Colossians 1:15-20. Instead of confining salvation to humankind as it has always been the case in Christian tradition, these texts clearly show that God's plan for salvation goes beyond that. The texts speak about the past, present and the future of creation in God's saving purpose 'the creation is waiting with eager longing in hope that it will be set free'. Because the creation has been enslaved (overexploited), it is not in a position to fulfil its purpose in

God's plan in connection with humanity. Reflecting ecologically from these texts, Bauckham (2010:157) asserts:

> [Jesus] is intimately related to the whole and the meaning of the whole creation consists in having Jesus Christ as its source, its focus, its healer and its goal. Conversely, Jesus Christ has to be understood most fully in his relationship to God and to the whole creation, not only to humans. This is to say Jesus' full significance is found in his relationship to all creation.

This implies a holistic vision of salvation where the whole creation is integrated in Jesus Christ. It is a holistic understanding of the salvific work of Christ. In his work of salvation, Jesus Christ is concerned with all forces that threaten the life of God's people. In the context of environmental crisis, those forces may include diseases, natural disasters, death, as well as oppressive political, economic, ecological and social structures. These are the signposts of forces that are currently at work, especially in the African context, that God in Christ is so concerned about. Faith communities have no option except to engage in his saving work in a holistic manner. Insisting on this further, Horrel, Hunt and Southgate (2010:128) point out that this must be the case because from these texts, there is a clear declaration that the scope of God's saving action in Christ is nothing less than the whole creation. The creation is itself bound up in the story of renewal and liberation. Therefore the emphasis on human salvation, while ignoring environmental factors of life on earth, can lead to the development of unsustainable relationships between human beings and nature. In contrast, an emphasis on holistic salvation will lead to the sustainable society which is characterised by solidarity, and fair consumption of natural resources.

Additionally, what connects holistic life, earth and environment in African perspective is life. According to Sindima (2011:8) the African understanding of the world is life-centred. For an African, life is the primary category for self-understanding and provides the basic framework for any interpretation of the world, persons, nature, or divinity. When traditional Africans think of creation, they think of the relation between human life and nature because life cannot exist without a health nature. In worldview, as echoed in chapter 5.2, the word community refers to more than a mere association of atomic individuals. The term itself suggests bondedness. It refers to the act of sharing and living in communion and communication with each other and with nature. Therefore, there is an urgent need to consider a model for the transformation of society, a model which will take bondedness and the relationship between

people and other creatures seriously (Sindima, 2011:9). Social structures and policies must find a basis in life itself and in the notion of justice as it is entailed by the life we creatures share with each other and the divine. Thus, an understanding of holistic salvation should envision that community must be based in a consciousness that all creatures are part of all others, that humans share a common destiny with nature. Community, and the vision that puts forth that community, must be dedicated to the holistic salvation and fullness of life for people, for other animals, for plants and for the entire Earth community (Sindima, 2011:11).

5.7 A recognition of an Ecumenical earth community

Coupled with the other five principles discussed above is the recognition of an ecumenical earth community. It suggests that God created the world as a common home for all. It is a home for humankind and all other creatures. Apart from it being a common home for all, it also entails an ecumenical task for all who inhabit the earth. The task is to be serious about cooperation aiming to sustain life and to thrive together indefinitely (Rasmussen, 1997:90). Alokwu (2009:259) also notes that the concept of an ecumenical earth implies that the earth is one single household of life created and preserved by God not only for human beings but reaching beyond humankind. This shows that human history is bound up with the history of all living organisms and that the human household is incapable of surviving without a relationship with the wider household in the natural environment (Alokwu, 2009:260). In this way nature becomes the totality of life. Echoing this idea, LenkaBula (2009:40) reminds of the need to rediscover that the wellbeing of humanity is linked to the wellbeing of trees, lakes, mountains, frogs etc. Therefore respect for the integrity of creation has its roots in the understanding that life is central to the expression of the mission of communities of faith as Robra (2005:5) puts it:

> Remembering that all life is created by God and that God continues to care for it, we affirm the sacredness of all life and receive God's gift of life that we share with all other creatures and all creation. Creation does not belong to us, but we belong to creation (Ps 104). The earth is not ours, but ***the common home for the entire web of life, the earth community***. It is not us who sustain life, but God. There would be no life on earth without the energy of the sun, without air, water, and soil. All our human activities must recognise and respect the logic and rules (ecology and economy) of God's greater household of life (oikoumene) in just and sustainable relationships that make for peace and the flourishing of communities.

Clearly stated in this text is that earth is a common property and that it is a common home for all creation. It is a place where the entire creation shares life resources together. It is the entire creation which forms the so-called earth community. For this reason the concept of an ecumenical earth community becomes critical in the process of developing an African life sustaining eco-theological framework as a working tool to address environmental degradation and food insecurity. This is particularly important given the fact that the world is highly affected by the environmental degradation as (Robra, 2005:3) further asserts:

> The urgency of the threat of climate change requires our generation to take immediate action and go beyond simple declarations and statements. New alternative models of life are called for. We challenge all people to move towards a style of life that derives its quality from the attentive enjoyment of nature and human relationships, from mutual care, dependence, trust and solidarity instead of the illusions of individual autonomy and material wealth, from spirituality and feelings of community, connectedness and intimacy instead of one-dimensional self-centredness. We draw strength from insights gained from the rich, community-oriented and simple lifestyles of indigenous and other marginalized communities. We are conscious of the significant contribution these communities, with their low carbon economies, deliver to the stabilization of the climate. We recommend the creation of 'just, participatory, sustainable and sustaining communities' for mutual support and call upon the churches and authorities to join them on this journey with reflection and practical support.

According to Rasmussen (1997:110), the ecumenical earth is also about the earth economy. It is an economic vision that adheres to the logic and rules of the ecological system as the source of life for entire creation. The concept of ecumenical earth seeks to preserve nature which is the common house for the entire community of life and enable it to increase food production at the same time, so that eventually food insecurity problems will be addressed. Unlike the current economic activities which are market and profit based, ecumenical earth calls for community based economic activities. It strives to serve the basic needs of people in environmentally healthy conditions. Moreover, it takes into account the conservation of the environment in which economic activities take place. It is built on the understanding that there is no economic activity which is not totally dependent upon the planet's ecosystem, biosphere and geosphere (Rasmussen, 1997:111). This is important because human economic production and consumption become unsustainable when they are not cognisant of the essential importance of the environment for the economy and for life.

Similarly, Daneel (1998:256) argues that the concept of earth community can well be reflected in an African concept of community, which serves as a reminder that human society is bound to the cosmos as a whole and to the entire earth community of life. It is about an ecumenical earth community. A positive relationship with nature could be well described by the term ecology which has to do with interactions, relationships and dialogue of all living creatures (Boff, 1995:8). It is simply a science of relationship. This is true because, from the ecological point of view, everything that exists co-exists, and everything that co-exists subsists in an infinite web of all-inclusive relations (Boff, 1995:8-9). This means that in the web of life, everything and everyone is related hence all have the responsibility to take care of it as Robra (2005) asserts:

> Protection of the earth as a common household is both a moral responsibility and a spiritual answer to the divine invitation that humanity contributes to the creation of a more inhabitable world. Here, spirituality is defined as a practice of living out of gratitude and wonder for the life-sustaining richness of creation, a feeling of deep commitment to all life and to nature as God's creation, and a sincere indignation about all threats to this richness. The churches' commitment to the issue of climate change grows out of the attentive listening to the most vulnerable and marginalized, and responds to the prophetic call for justice and transformation. These stories together with the Biblical witness of the God of life urge us to affirm that our moral responsibility must be guided by God's love for life and by principles of justice, accountability, solidarity and sustainability.

The concept of ecumenical earth has also to do with the management of the entire household of God so that the members of that household may have equal access to resources of life. It is about how the economy of God works for the common good of all. It adheres to the rule that natural resources must be equally shared by all (Daly and Cobb, 1989:135). Furthermore, resources must be used based on the concrete needs of the majority of the population and not the greed of a few individuals. Ecumenical earth should not entertain unlimited accumulation of wealth at the expense of the natural environment. Rather accumulation of wealth in the ecumenical earth has to be limited by sufficiency. On this basis, Blank (1992:7-8) suggests that all economic activities should be understood, in the light of ecumenical earth, to reflect on particular aspects of household management, especially the protection and distribution of natural resources so that all may have a life of lasting quality. This shows that God is concerned with His people just as He is concerned with the life in the rest of creation (Blank, 1992:13). God is also concerned not only with the life of human beings but with the life of the entire earth community. In this regard, Daly and Cobb (1989:135) argue for a shift from

an academic understanding of economics, which is not based on real life, to a community based economic system that has life at its centre.

Ecumenical earth requires that human beings should be sensitive to issues of the interconnectedness of life on earth. It seeks to ensure the availability of satisfying and useful resources for all members of the earth community, and the security of members of the community in the sense of access to biological and social resources (Daly and Cobb. 1989: 136). It also focuses on stability of the community, access to qualities that make life valuable, stimulating and satisfying (rather than valuing things) and the thriving or vitality of the community (Daly and Cobb, 1989:136 and Rasmussen, 1997:112). All these aims differ from the characteristics of the current economic activities that focus on growth without quality of life for all, increase of business without equal distribution, increase in income without effects in real life and increase in jobs that are not decent jobs.

The principle of an ecumenical earth community is critical given that the current economic system is dominated by the vision of an expansionist economy aimed at profit rather than life sustenance. Rasmussen's (1997:111) advocacy for another economic vision is informed by the biased function of the current unjust human relation to nature. Unsustainable practices stand at the heart of the earth's misery today. The current unjust human relationship to nature is based on a vision that does not consider ecological perspectives and their essential importance to life. It does not even think of the earth as a common home for all, where logic and rules for extracting resources must be observed.

Explaining how ecumenical earth has been destroyed through agriculture, as it is one of the key economic sectors in most developing countries, Graham (2005:92) asserts that modern farming methods that have been influenced by the current economic system have degraded the natural environment and considerably reduced its capacity to support food production, hence putting life at risk. Because the natural environment cannot sufficiently support agricultural activities, food production has declined. This has exacerbated the problem of food insecurity in many African countries including Tanzania. Graham (2005:93) further observes:

> In many ways expansion-based agriculture epitomizes ecumenical earth community. It's almost complete reliance on fossils fuels takes it far away from solar-based agriculture system. The big size of farms forces farmers to rely on external inputs due to insufficient quantities of local and natural resource maximizing productivity takes precedence even if it means poor top soil management, environmental damage or harm to the community in the form of synthetic chemical contamination.

This implies that most economic activities today are detrimental to the ecumenical earth and are not concerned with servicing life on earth. Rather, they are threats to the sustainability of life and the earth community as whole. Rasmussen (1997:112) contends that such economic activities do not care about where the resources come from. They do not consider what critical role natural resources play in sustaining life and the community as a whole. Although these activities have contributed to the destruction of the society, environment and ecology, they have also generated a period in which many species on earth are becoming extinct. (Rasmussen (1997:112).

Recognition of the ecumenical earth community goes hand in hand with integrity of creation, requiring the development of strategies for the restoring and protecting of life on earth. It is important to preserve natural systems which sustain life and earth's biodiversity. These strategies have to be cognisant of the critical role of scientific and other forms of knowledge in designing systems for producing goods and services without causing damage to the environment (Hessel and Rasmussen, 2001:114-115). Integrity of creation calls for a positive relationships between society and nature which is necessitated by the fact that the current economic order has created a dichotomous relationship between humans and nature. For the concept of ecumenical earth to be effective, the relationship between humans and nature must be maintained in a positive manner. The principle of the ecumenical earth community agrees with the African principle of wholeness and togetherness. Furthermore, Ramose (2008:309) points out that an ecumenical earth can be easily achieved through honouring the health condition of creation as whole. Without a healthy environment, the interdependency of human beings and other living creatures is threatened. The fact that human beings enjoy a privileged existence does not alter the truth that they are also part of the creation, hence should respect the health of environment. This is because human beings and the environment are linked together. Adam is portrayed as an earth creature, created from the earth itself and commanded to respect and have a positive relation to the creation as whole (Rasmussen, 1990:17). Daly and Cobb (1989:103) further infer that the original intimate relation between

environment and life has faded because Christianity has emphasized some themes which suggest dichotomous separation between humankind and the natural environment. One of the dominant themes is the emphasis that the true home of Christians is not a particular place but the coming realm of God and that Christians are wanderers and pilgrims on earth.

5.8 Conclusion

This chapter was set out to outline key concepts that will contribute to the formation of the African life sustaining eco-theological framework. This framework will serve as a tool in addressing issues of tilling and keeping the earth in the context of food insecurity and environmental degradation. It has been argued that such a framework needs to be rooted in the African understanding of the world, nature and life in general. Therefore, there are six key concepts that can form an African life sustaining eco-theological framework. These include: an African worldview, a life-centred vision, a focus on sustainability, an ethic of care, an understanding of salvation as holistic, and recognition of an ecumenical earth community. All of these are deeply embedded in the African understanding of reality in the world, which is communal and holistic in nature.

CHAPTER SIX

CONCLUSION AND RECOMMENDATION FOR FURTHER RESEARCH

6.1 Summary of the study

This study is a non-empirical and has followed three methodological steps. These include, firstly, historical analysis, secondly, critical social analysis, and thirdly, critical theological analysis. After the introductory chapter which outlines the background of the study, literature review, presentation of the research problem and objectives, theoretical framework, research design and methodology, the historical analysis has been employed to set the context of the study in chapter two. In this chapter, a brief description of the context of food insecurity and environmental degradation has been discussed. The chapter points out that food insecurity and environmental degradation are linked with an unjust global economic order, modern farming methods, and a lack of concern for the environment. It has been argued that agriculture in Tanzania is a potential sector that can address food insecurity problems because it plays a significant role in the national economy. However, the unjust global economic system, modern methods of farming and a lack of concern for the environment have significantly contributed to the environmental degradation which in turn affects food production, hence food insecurity. In order to address food insecurity, farming methods need to take into account environmental issues because environmental degradation has a major impact on food production and food security.

After outlining the context of the study in chapter two, a critical social analysis has been deployed in chapter three to describe ways in which agriculture has been practiced globally and in Tanzania in particular. After pointing out the inefficiency of the industrial and green revolutions in agriculture, it has been argued that eco-agriculture, particularly organic farming, has the potential to increase food production. Furthermore, organic farming will improve the livelihoods of rural communities in Tanzania and preserve the environment. Studies have shown that organic farming methods were used by many African communities, especially in Tanzanian rural areas, before being influenced by Euro-American ideas. What is required, however, is to revive those skills and knowledge and combine them with scientific discoveries so that they can effect better food production and environmental conservation.

Finally, critical theological analysis has been applied in chapter four and five. Chapter four highlights some unhealthy theological aspects within the Christian theological tradition that have changed the way people relate to the created order. This is particularly true if one looks at the current unjust economic order which focuses mostly on profit and very little on environmental conservation and food security. The researcher has discussed Christian approaches to the environment by identifying three theological strands that underpin unhelpful Christian environmental thinking. These are the theology of dominion, the theology of stewardship and the theology of salvation. It has been argued that these theologies are anthropocentric and patriarchal in nature, and have influenced the formation of various systems that work unjustly, including the current economic system which exploits nature and affects food production. This mentality is based primarily on western Christian thought. What is needed is the development of an alternative system which focuses on improved food production without damaging the ecosystem which sustains life.

Further, chapter five offers a critical theological reflection on the key principles that have the potential for the formulation of an African life sustaining eco-theological framework that will guide faith communities to address issues of food insecurity and environmental degradation. It does so by incorporating the perspectives of Rasmussen (1997) on '*great economy*' and Daly and Cobb (1989) on '*oikonomia*'. The Rasmussen's (1997) theory of 'great economy' and Daly and Cobb's (1989) theory of *oikonomia* have been used interchangeably to guide the entire study. However, Rasmussen's theory of 'great economy' with its principles of integrity of creation, sustainability and ecumenical earth has been used to identify key factors that lead to food insecurity and environmental degradation, with a particular emphasis on the impact of the current unjust global economic order in Tanzania. Furthermore, the principles of *oikonomia*, as outlined by Daly and Cobb (1989), have been used to identify life sustaining approaches to agriculture that can lead to sustainable food security without damaging the natural environment. Principles of *oikonomia* have also guided the study into theological reflection where some key unhealthy theological aspects which demonstrate Christian approaches to environmental problems, and the call for life affirming theologies has been offered. Therefore, the two theories have guided the study towards proposing six key principles of an African life sustaining eco-theological framework for tilling and keeping the earth. In the first place such a framework must begin with an African worldview that is rooted in an African understanding of reality which embraces communal rather than an

individualistic life. Building on the African worldview, the second principle is a life-centred vision which seeks to promote life in its various dimensions, hence standing against all powers, systems and structures. The third principle that goes together with a life-centred vision is sustainability. This means that in order for life to continue on earth, an African life sustaining eco-theological framework must give special attention to the aspect of sustainability of life on earth, including the environment. In order to ensure sustainability of life, an African ethic of care for the entire earth community, as a fourth principle, must be given special consideration. The principle of care is a reminder of "caring responsibility" that God entrusted to humankind. The fifth principle suggests a new understanding of salvation. Since salvation plays a key role in the Christian life, it must be understood holistically. It suggests that salvation should not be disentangled from the social reality which includes the environment, as well as political, economic and religious aspects. In order for salvation to be true, all these social components must be guided by justice, peace and love for one another. A holistic understanding of salvation leads to the sixth principle which is a recognition of an ecumenical earth community as a common home for all, human being and non-human creatures. As can be seen in the discussion above, these six principles do not operate in isolation, but rather they build on, impact and influence one another. However, the use of these principles should not be restricted to humanity alone; they must extend to the entire earth community. In the long run, this will help shape the behaviour, attitudes and practices of humanity in relation to nature, hence alleviating the problems of food insecurity and environmental degradation.

6.2 Recommendations for further study

- Further research is needed on an "African ethic of care" with a particular focus on the African communal worldview.
- The six principles of an African eco-theological framework suggested in this study need to be expanded and interrogated more fully.
- There is a need to develop deeper theological reflection on key themes that engage faith communities in socio-economic and political issues affecting the lives of the majority of people in Tanzania.

- Models of leadership development that equip faith communities with theological perspectives that advocate life-giving perspectives on the environment need to be explored.
- Explore further ways in which eco-theologians can shape Tanzanian government policy on agriculture.
- Sustained engagement with indigenous African religious and philosophical thought around questions of reverence for the environment in order to nurture life-giving communities.

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