LAND DEGRADATION INFLUENCES ON THE LIVING CONDITIONS
OF A FARMING COMMUNITY IN KENYA

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Spring: 2015

Student thesis, Bachelor degree, 15 HE
Study Programme in Social Work, specialisation International Social Work

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Abstract

The aim of this study was to explore how land degradation influences the living conditions of a farming community in Kenya. Investigation method used was qualitative research and data collection through semi-structured interviews with chosen farmers, interview with a professional in the relevant profession, and field observation within a farming community in central province of Kenya. In developing countries many families live in rural areas and depend on small scale farming for livelihood. These communities are however faced with poverty from degraded lands as is indicated by the interviews conducted in this rural community where farming activities has resulted in degradation of land. Unhealthy agricultural practices threaten human survival by not only eating innutritious food, but reduction in economic capability, as well as causing loss of biodiversity which is indispensable for environmental sustainability.

Key Words:  land degradation, sustainable/organic agriculture, rural community poverty, Critical social work, Eco-social work
Preamble

Making research on this topic was not easy; it came with lots of challenges. It touches quite a sensitive subject which was beyond my anticipation, but I’m glad that with some support I managed. My sincere appreciation goes to my Supervisor Stefan Sjöberg without whose guidance the report would not have been a success. Thank you Prof. More gratitude goes to my family who stood side by side with me in pursuit of success, by giving emotional and spiritual support. Not forgetting the contact person who went out of his way to help me secure interviews the farmers who were willing to participate in the interviews that were necessary for accomplishing the work. To the friends and anyone who participated that the report should see light of day I thank you all.
1 INTRODUCTION

Blame has always been on the poor for degrading environments while discourses of poverty-environmental interaction are not being mentioned. Failure to look at poverty-environmental connections means that, development theorists are to a minimum inappropriately blaming the poor for problems the poor haven’t created, or undermining the long term poverty alleviation, food security, and environmental integrity (Gray & Moseley, 2005).

Indiscriminate use of land, watershed by the increasing population has yielded to degradation of land. It is therefore important that we understand or seek knowledge between the natural and human actions that lead to changes in land cover use, ecosystem health and loss of global biodiversity and reduction in the production of various human needs.

Land degradation results mainly from two causes. First deforestation, and land degradation from loss of top soils due to destruction of vegetation cover, thereby causing vulnerability to rainfall and scarcity of resources. (Jeremy, 2010) Secondly, mismanagement and indiscriminate use of agricultural inputs, such as chemical fertilizers, pesticides, and other agro-chemicals therefore, the need to protect the land continuously in sustainable ways where there is no fear of extinction (Jeremy, 2010).

Challenges to sustainability for humans, is greater and clearer in food and agriculture. Crop farmers and animal rearing farmers are obliged to use natural resources soil, air,
water and sun in ways that continuously produce enough food for satisfaction of human biological needs for survival as well as people’s economic demands. Negative farm practice will increase food security in short run, but will overtime, decrease food production and endanger survival of the next generation. Operations of agents within and without the food system together with governments’ can be helpful or a hindrance to sustainability (National research council, 2012).

As a matter of concern to poverty alleviation and environment protection the UN and ESCAP (Economic and Social Commission for Asia and the Pacific, 2002) upon request by the National governments of member countries took to following and examining global developments of organic agriculture, in several countries of Asia and Pacific regions in development of organic farming sector.

….Looked at were market developments where rural area small marginal farmers increased their livelihood via organic agriculture….. Agriculture still is primary employment source for women in Developing countries… Many countries experience decline in productivity form conventional agriculture degradation of natural resources poses a serious challenge to the productivity of agriculture. (National research council, 2012. p. iii)

Yet from another conference in Africa the Theory of social capital which is ‘willingness of an individual to making short term sacrifices for long term benefits’(Auerbach, Rundgren, El-Hage Scialabba, 2013, p.166). A benefit that goes for the local community as well as to the person making the sacrifice (Bourdieu, 1986; Putnam, 1993) was applied in Ugandan Rwenzori area for boosting organic farming sacrifices were made through setting of goals and interactions for meeting the set goals, this Ugandan community attribute’s improved agro ecological farming, increased income and better family food security to their sacrifices to the FFLGs (family farm learning groups) through the practice of sustainable organic agriculture. (Auerbach, et al, 2013)

UNEP (United Nations Environmental Program) a program within the UN body that cares for the environment has a mission, providing leadership, partner in caring for the environment through inspiration, information, and to empower nations and peoples to improve, livelihood without compromising lives of future generations. Their mandate is “To be the leading global environmental authority that sets the global environmental agenda ….the environmental dimensions of sustainable development within the United Nations that serves as an authoritative advocate for the global environment.” (UNEP, 2015)

The statements above are proof that the environment is surely under threat causing a major challenge to all professionals who strive to bring social justice to society. It is an imperative that all people look into issues such as this. The wisdom of the Native
American warns us of the importance of protecting our environment. According to this wisdom, “the earth we live in is lent to us by our children and not inherited from our ancestors or parents” (ancient Indian Proverb). If we have borrowed it, we should treat it well so that when our use for it is over we give it back in good form.

Social Work research underlies the importance of understanding and search for controlled knowledge (D’Cruz and Jones, 2004). Social work professionals concern is to address injustices in the society and to relieve the oppressed such as was found in this research where people are weighed down with poverty from lack of knowledge to good farming methods. In pursuit to these ends social workers should understand the world and thereby development of “practice wisdom” (D’Cruz & Jones, 2004, p. 31). Meaning that social work research is not just a technical exercise but covers a wide scope; the knowledge interpreted by social workers is for both political and ethical purposes, for meeting the social work objectives of achieving social justice, improvement of individuals, groups and communities social conditions.

In recent times attention to environmental problems has been on the rise. On the other hand there has been rise on health problems. Eradication of poverty tops some of the goals of international organizations meaning it is a serious concern. Food security is a major talk; as sustainability of almost everything is preached by both private and public organizations. Environmental land degradation bears blame to some of the above social problems. If all organs are concerned with sustainability, poverty alleviation, and food insecurity what is it that is done to curb these human challenges? International Fund for Agricultural Development (IFAD) report, on rural development indicate that agriculture in developing countries has operated in a context of low global prices and food products, coupled in many countries with unfavorable local environments, minimal level of investment in agriculture, inappropriate policies, uncompetitive markets, weak rural infrastructure, deteriorating natural resources which have contributed to risky unprofitable environments for small holders to participate in agricultural markets. And even as global markets today offer environment where small holders must operate with good incentive for them to engage profitably domestic environments such as appropriate policies, more investment in rural areas need to improve. Enabling agricultural environments need to respond not only to long standing issues but also newer realities, degradation. “The natural resources, land and water on which agriculture is based above all are becoming degraded” (IFAD, 2011, p.2).
‘It is only when the last tree have been cut down,
When all animals have been hunted down,
Only when all waters are polluted
And only when all the air be unsafe to breathe
Then, and only then, will you know that you cannot eat money.’ (Cree Prophecy)

1.1 Aim
The aim was to explore how land degradation influences the living conditions of a farming community in Kenya.

Research questions were therefore to find out the following:

- How do the farmers experience the living conditions in the community?
- Which kinds of land degradation are the farmers experiencing and how do they perceive the effects on the life of the community?
- What methods of agriculture are practiced by farmers in the community and how do they consider the results?
- What are the challenges faced by farmers in improving the living conditions of the community?

1.2 Disposition

The research is arranged such that it begins with an introduction which gives insight to the research problem; following is the aim of study, with research questions. Definitions of key concepts come under the topic concepts. Precisely after concepts are the earlier researches related to the topic of the present study. Theories that are applied for supplementing the finding come after the earlier researches. Methodology chapter follow after theories. This research is conducted by phenomenological means through field interviews. Analysis and results is presented under different themes from both research questions and themes found in collected data. Finally is conclusion of the research and recommendation for further action.

2 CONCEPTS
2.1 Poverty

Aspects constituting poverty are lack of health, education and human dignity from a multidimensional concept of deprivation (Andersen et al, 2011). While poverty can be divided into two sections namely relative poverty and absolute poverty. Absolute poverty refers to severe depravation of basic needs, including food, health, shelter, education and education. Not only does it depend on income but access to services too (UN1995:57). For this research study we will focus on relative poverty where an individual, families or groups or persons whose resources (material, cultural and social) are so limited as to exclude them from the minimal acceptable way of life of members state where they live EEC, 1985 (Pierson, 2010).

Poverty happens when people have shortage in terms of necessities or assets, which are resources that people need to live normal standards of life. Poverty is not counted only monetary wise. The United Nations Educational Scientific and Cultural Organizations, (UNESCO) a UN body established in 1945 for maintaining world peace, define poverty as Income poverty, which happens when a family’s income fails to meet a federally established threshold, this differs across countries. Extreme poverty is internationally set to be in possession of less than a dollar a day (UNESCO, 2015). Absolute poverty is the capacity to meet basic needs like food shelter, and clothing absolute poverty does not take into consideration the broader quality of life issues or the overall level of societal inequality it does not take into consideration a person’s social cultural needs (ibid). Relative poverty is measured in relation to other members of the society depending on the societal contexts. It is not just a matter of survival but constitutes a standard of life measured by the community where one lives. Human Development Approach (HDA) uses relative poverty to include infant mortality, life expectancy, nutrition and health, access to clean water and sanitation, literacy as well as other aspects of human existence that affect the overall quality of life (poverty perspectives, n.d.).

Economic Sociologists study reasons for poverty such as roles played by culture, power, social structure and wider factors all beyond an individual’s control (Smeeding, 2001), which means that relative poverty is not only looked at from economic point but also political, social and cultural contexts.

‘Poverty is context - specific; its precise features are derived from and prevail under varying (but in each case unique) political, economic, environmental and socio-cultural situations.’ (Göransson, 2002, p. 10) Hungers, poor health, denial of dignity, are some
aspects of poverty. Poverty has its own dynamics, often lack of power, and lack of opportunities and security are some characteristic of vicious circles (ibid).

Individuals facing poverty do suffer want in multiple dimensions. They are prone to deprivation of basic needs such as food and shelter, suffer from malnutrition and unhealthy living conditions, they are vulnerable, and lack ability to use legal system for redress. The poor might be lacking knowledge not only on their rights but of how to escape from poverty (Andersen, Per, and Derrill, 2011). The patterns of poverty mentioned above are not only life lasting but can be passed on to generations. For individuals, reasons for poverty can include lack of human physical capital, or opportunities. As groups people are excluded or marginalized diminishing their chances. Government policies that favor one group over the other such as that which support manufacturing while taxing agriculture, poor governance and institutions, lack of economic growth and natural disasters are among causes of national-level poverty. Globally trade policy and ineffective institutions are people’s hindrance to escape from poverty. From these aspects poverty has no single route cause; different forces are in play for individuals, households, communal and global levels. Interacting forces may lock people into poverty or repeatedly bring them back down into poverty after they escaped (Andersen et al, 2011).

Most of social work clients are those faced with poverty the ones who turn to social workers for help, seek relief or supplementation to their low status, they are those who are affected by poverty of different contexts. In this study poverty was looked at from different perspectives, in regards to how a community’s farming practice resulted to the living conditions the study found out that the farmers were faced with poverty from different perspectives, lack of knowledge or how to challenge the problems, poor health, economic, policies among the many faces of poverty mentioned above.

2.2 Sustainable/Organic Agriculture

Agriculture is the art or science of tilling land for raising crop and rearing animals for food or sale. To be sustainable a farm should be cultivated in ways that is ecological nature friendly not destabilizing the ecosystem. Organic agriculture is one of the best practices in guaranteeing environmental sustainability; it maintains soil fertility, ecosystem and people’s health. Its reliability is on recycled, locally adapted ecological processes and natural biodiversity as opposed to use of synthetic and modified materials (Auerbach et al, 2013) “It is therefore of importance that our farmers are inspired to
practice organic farming” (Auerbach et al, 2013, p.4). Stated Chenda Emmanuel Zambian minster for Agriculture while launching second organic conference; mainstreaming organic agriculture in African Development Agenda Lusaka May 2012. Chenda allege that it is with no doubt that organic farming is able to contribute to food security, create employment for the people and increase their income (Auerbach et al, 2013)

2.3 Environmental land degradation

Degradation of land leads to significant reduction of productive capacity of land. The contributing factors to land degradation are both manmade and natural disasters. The manmade causes of land degradation are indiscriminate land clearance, soil depletion from poor farming practices, and contamination of soils. Effects of land degradation to severe extents, cause decrease in wealth and economic development of nations. Severity of land degradation results to compromise food security from diminished productivity, and disappearance of resources (Eswaran, Lal, & Reich, 2001). Contributions are like unsustainable agricultural land use, poor soil and water management practices, population growth; removal of vegetation, frequent use of heavy machinery, improper crop rotation and poor irrigation, (UNEP, 2015)

Global markets today offer environment where small holders must operate with good incentive for them to engage profitably, domestic environments such as appropriate policies, more investment in rural areas need to improve. For this to happen enabling agricultural environments need to respond not only to long standing issues but also newer realities “the natural resources on which agriculture is based, land and water above all are becoming degraded” (IFAD, 2011, p. 2).

Figure (b) Degraded farm land
3 PREVIOUS RESEARCH

3.1 Environmental degradation effects on land, health and ecology

Many researches have been done regarding the controversies surrounding environmental degradation, poverty and social injustices. (Donohoe, 2003) found that effects of environmental degeneration are water pollutants, toxic pollutants, garbage, air pollution, deforestation, agricultural destruction of arable land among others. On agriculture he found that soil erosion exceeds formulation. Decreased crop diversity has led to local limits in genetic diversity which in turn has led to vulnerability and increase diseases to agricultural products. Depletion of aquifers has risen due to tripled water use since 1950. In China, the three Gorges dam, a large scale irrigation project will displace and destroy valuable family farm land and important archeological sites (Donohoe, 2003).

Use of pesticides is on the rise increasing pollution, industrial factories have been replaced by large farm factories that generate 1.4 billion tons of untreated sewage per year. These are the leading pollutions of American waterways killing fish, and Pfisteria Pescii infections. Agriculture this research found accounts for 40% of antibiotic use, and a dominant source of antibiotic resistance among food borne organism. Driven with the desire to feed the world’s population and to find new ways of making profit from agriculture, biotechnology companies have increased production of genetically engineered foods. Genetically modified seeds are now being used to plant 25% of America’s corn crop and 30% of its soy beans. “Genetically modified foods threaten biodiversity; altered genes could potentially cross contaminate other organisms with unpredictable effects on environment”. (Donohoe, 2003, p. 6) Some European nations, has called for bans on genetically modified organisms on entire ecosystem including, possibility in increased extinction of species. The World Bank and IMF however in their lending policies to developing nations, encourage farmers to produce profitable cash crops for export instead of the much needed food crop for local consumption. Hunger is a global problem not because of inadequate food production but rather what is grown its production and distribution. Meaning there is no room for sustainability (Donohoe, 2003).
3.2 Soil degradation, effects on ecology and agriculture

A study on sustainable agriculture carried out by (Reganold, Papendick and Parr, 1990) in the US found that traditional conservation methods of agriculture combined with modern technology can reduce farmer’s dependence on possibly dangerous chemicals. These practices rewarded both environmentally and financially. To be sustainable an agricultural farm/land must produce high quality of food while protecting its resources. Be environmental safe and profitable. This kind of farm should not rely on purchased materials like fertilizers but be reliant on natural processes, renewable that come from the farm itself. Sustainable agriculture touches on problems of world food production, the afflictions are: high energy cost, ground water contamination, soil erosion, loss of productivity, depletion of fossil resources, low income, risk to human health and the wildlife. Sustainable agriculture embraces organic, alternative, regenerative, ecologic or low input farming methods (Reganold et al, 1990) the difference is that though low yield the farmers have the same in worth as conventional farmers when the input on conventional farming is counted. Critical importance understanding of soil is needed if one has to understand the logic.

Soil is not just another instrument like pesticide, fertilizers, or tractors, but is a living delicate medium that must be protected, taken good care of for long term benefits in production and stability. Healthy soils retain moisture for long periods, air circulates in it, worms mix the soil naturally, and microorganisms decompose organic. Organic materials feed earth worms and soil matter, the soil are healthy.

Sustainability combines traditional conservation farming techniques with modern technology emphasizing in crop rotation, diversification of crops, and controlling pests naturally among others. Each farm tailors its activities to meet environmental and economic needs. The control of insects, disease and weeds without chemicals is the target of sustainable farming. Limitation of pesticide use is called IPM (integrated Pest Management). This might involve disease resistant crop varieties, control of predators naturally (Reganold et al, 1990).

Among the reasons for failure by farmers to practice sustainable farming are
• policies such as lack of price for other crops incentives are given for monoculture practice for achieving maximum profits
• lack of incentives from the society to sustainable farmers for choosing best methods that are beneficial to the public
little information on gains of sustainable agriculture, government sponsored research inadequately explored this field of farming rather than concentrated on agrichemical production methods

grants are given by agribusinesses to universities for development of chemical intensive technology for grain monoculture. (Reganold et al, 1990, p. 119)

This research requested that farmers and public be up to date informed, of not only accurate, but practical and applicable methods to local farming conditions, education should be given to the public on the potential adverse environmental and health consequences of pollution from agricultural practices. They recommend also that education should be done through farmer to farmer exchange networks.

3.3 Environmental degradation, market economy and poverty

The poor have always been blamed for degrading environments, however (Gray and Moseley, 2005) found otherwise. In their finding the poor are caught in the blame game of the neoliberals who are bent on exploitation by pushing their economic agenda, while not mentioning the discourses of poverty-environmental interactions. Report for the world ban 1996 indicated that “poverty is a factor that speed environmental degradation, as the poor, with short term vision are unable and unwilling to invest in management of natural resources” (Gray and Moseley, 2005 p. 1), since the poor rely on it for their survival. Given is an example of poverty induced environmental degradation in west Africa where developers encourage expansion of export oriented cotton production as the best way for reducing poverty, alleging this would conserve the region because of the wealth the cotton will generate. Former US president Bush framed his skies initiative by saying “economic growth is the key to environmental progress since it is growth that provides resources for investment in clean technologies”. (Gray and Moseley 2005, p. 2) Good as it is to link environmentalism and poverty alleviation through economic growth, social justice or economic development, failure to look at poverty-environmental connections means that development theorists planners are at a minimum, inappropriately blaming the poor for problems the poor haven’t created, or worse still undermining the long term poverty alleviation, food security, and environmental integrity scholarly community should look at this matters (Gray and Moseley, 2005).

Logical as it is that the poor person goes out exploits the environment to feed the family, thereby further impoverishing the family, other issues underlie this cycle.
Political ecology viewed poverty driven overexploitation where the poor overexploit their resources because of increasing costs and decreasing returns to labor, farmers were seen to over mine their natural resources resulting to increased land degradation Gray & Moseley refute this. Poverty is driven by structural forces of inequality at local and global level which are other interactions of poverty- environmental interactions (Gray and Moseley, 2005). Spatial distribution of environmental degradation and resource access is unequal both within locality and globally; processes globally such as markets and trade policies, affect global poor such as farmers having little control over world price for commodity that is of great importance to global poor (Gray and Moseley, 2005).

Political ecology, criticized cultural ecology of indigenous people’s knowledge, which appreciated the role of local farmers in preservation and categorizing. Local knowledge cultural advocates, see small scale farmers as developing agricultural practices adapted to local environments and appreciate their own local agricultural systems, these have combated dominant views of technical experts on lack of knowledge as poor people’s problem in management of natural resources (Gray and Moseley, 2005).

3.4 Sustainable development, social capital, poverty alleviation and environmental degradation

Human capital focus on individuals economic behavior the way an individual accumulate knowledge and skills to enable them increase their productivity and wealth in societies in which they live (Asadi, Akbari, Fami, Iravani, Rostami and Sadati, 2008). This investment in knowledge and skills bring economic returns individually and hence collectively.

Linkages between poverty and environmental issues have many dimensions, research and policy point that the poor are both victims and agents of environmental degradation. Belief is that, citizen demand and advocacy are critical in inducing policies, technical changes and will reduce degradation and pollution. Rural poverty, fertility, environmental resource degradation is not resulting only from poverty but institutional failures, market failures do cause environmental degradation; the poor are being exonerated from degradation as having no resources or time to degrade their assets, the natural resources. Poverty and environmental changes partially are to blame as causing environmental degradation (ibid).
Since it is a complex spiral, degradation of environment from the poor or rich has both direct and indirect influence, not only on production cost but productivity of crops and peoples income. Poor people get more affected than the rich and become poorer from environmental degradation resulting from forest depletion, degraded lands, use of fertilizers, pesticides etc. in modern farming therefore the link between poverty and environmental degradation each is a cause affecting the other (Asadi et al, 2008).

The table below shows that increasing poverty resulted in less access to resources, lack of right technology and use of poor lands. These factors coupled with short goals of poor farmers in conditions that environment conservation is less important (Asadi et al, 2008).

Table 1: Poverty and land degradation Adopted Lele 1991

<table>
<thead>
<tr>
<th>Access to resource</th>
<th>Environmental degradation</th>
<th>Poverty</th>
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Macro- level effects of environmental degradation are wider decisions on technologies, institutions and regulations, macro-economic policies, market and prices, donor and development agency approaches to poverty, agricultural research etc. Environmental sustainability is the maintenance of ecosystem and natural resources. Environmental degradation is a failure to this regard because environmental degradation depletes resources, pollutes the environment, and reduces biodiversity through loss of some types of resources. Social sustainability is the condition needed to support
environmental sustainability. It stresses that natural resources are used within a social context and that rules, and values associated with this context determine distribution of resources within present and next generation (Asadi et al, 2008).
Environmental sustainability is the upkeep or essential ecological process, biological diversity and natural resource base, environmental sustainability is important for development. Humans are part of nature through our bodies, and the environment is important for our survival, health and social life. Human lives rely on natural capital for food production, drinking water, energy etc. air and water quality have significant impact on human health. To become sustainable economic and social development must retain or improve ecological and resource potential for support of future generations “development of one group should have no irrevocable non compensable adverse environmental effects on contemporaries” (Asadi et al, 2008, p. 7).

4 THEORETICAL FRAME

The chosen theories are critical social work, and eco-social work. The choice of using these theories is because of their suitability to my area of study. Not only are they essential to social work professionals that hope to work with community development matters, but there is need to apply these theories in this community so as to empower the farmers to eradicate poverty by considering the environment which is inseparable if social work has to look at people as whole. Critical social work stresses importance of community empowerment and development while eco-social work touches on the importance of considering the relationship between human and nature. “‘Ecological’ in social work was adopted to convey a dual simultaneous concern for the adaptive potential of people and nutritive qualities of their environments” (Greene, 2009, p.201) theories used in a study can also help reading interview analysis ‘by theoretical reading we refer to a theoretical informed reading of interviews’ (Kvale & Brinkmann, 2009, p.235) and having different contexts the theories helped in discussion of results.

4.1 Critical Social Work

Critical theory is transformational, it proposes that social work should seek to change the way societies create social problems (Payne, 2005). This theory particularly rejects the dominant discourses of capitalism, economic liberal or economic rational approaches. Critical social work theory seeks promotion of and raise awareness to social
inequalities, political action and social change. This change helps in combating cultural hegemony, by which the powerful maintain a social order that is beneficial to only them. (Payne, 2005) Critical approach is ‘the recognition of possibilities for both personal and social change’ (Fook, 2002, p.17). It is participatory, a bottom-up approach to practice, based on the user experiences in identifying the causal mechanisms and structures that lead to oppression and discrimination. (Stepney and Popple, 2008, Healy, 2000)

Anti-oppressive work practice holds that barriers to “full human development are socially and politically created”. (Pierson, 2010, p. 32) Critical social work theory stresses that it is not enough to increase the voice of clients in decision making, but to challenge the power structures of the dominant by undertaking social and political action and work so to amplify the power of the oppressed in order that they can challenge dominant structures that keep people in poverty (Pierson, 2010) For critical theorists “it is not enough just to understand the world but to change it”. (Healy, 2000, p.13) Critical social work practice attempts to understand oppression in a rationale responsible manner, so as to stimulate the audience of the society to change and liberate themselves.

If ‘social work’ is to achieve anything other than transitory success it must be motivated by both the desire to achieve social and environmental, environmental change and by an understanding of the forces that have brought our society to its present position. (Healy, 2000, p .24)

Critical social work practices in ways that further a society without, oppression, domination or exploitation engrossing itself on how structures dominate, and the ways in which people construct and are constructed by changing social structure recognizing that there may exist diverse constructions of apparently similar situations. This understanding is then used to unsettle structures and dominant understandings as a way of change so that they are inclusive taking interests of different groups (Fook, 2000). Conscientation helps people organize themselves for taking action that changes their social realities. A practice used by masses in the necessity of rapid restructuring of their society, based on equality for all people, including the illiterate. (Nyirenda, 1966) A key concept within the critical social work frame is community empowerment, whereby community development practice helps people come together to identify issues of concern to resolve them whereby, community development practice helps people come together to identify issues of concern to resolve them. It also includes social or
collective action which helps communities to change policies that dominate and oppress. (Payne, 2005)

Community education and conscientation is concerned with participating in and developing opportunities for involvement in education for deprived people. This is a way of critical social action which is a way of social work at local levels to change government policies and practices or attitudes of powerful groups. Social development is participatory in all kinds of social concerns and calls on economic development that considers benefit to all human generation, both present and future with respect to protecting nature that give life to all, (Payne, 2005).

Community development involve groups or community residents coming together to build a consensus about community problems, and thus work in cooperation between group members for improving their community (Hardina, 2013). Social action as a component of community empowerment development involves pressuring individuals through groups or social movements, lobbying or engagement in social protests, through participation in protests by those who have reached a consensus of the goals aimed and elaborating, strategies or tactics to be applied (Hardina, 2013).

Community development practice is working with local groups for increasing their levels of participation, in different levels whether it is defining their problems, shaping solution and for the community in having say as to how services are delivered; it works for improving the livelihood of the community as a whole (Pierson, 2010).

4.2 Eco-Social Work

Eco-social work theory involves analysis of structural causes of disadvantages. Eco-system approach calls on practitioners to understand that problems of clients arise out of a ‘poor fit’ between a person’s environment and his/her needs capacities, rights and aspirations. (Stepney & Popple, 2008, p. 117, Greene, 2009)

Eco-social work approaches are holistic they take into consideration global environment, including environmental impact analysis of social area in which social workers operate, involving plans of social action relevant to communities’ needs and interest. Eco-social work promotes positive use of natural resources and self-consciousness about life styles respectful of environmental resources. (Payne, 2005, Stepney and Popple, 2008). This theory seeks sustainable development that does not encroach on natural resources.
Environmental harm isn’t just a natural world problem but a major contributing factor to social problems; it increases or is reason for social problems (Spapens, Kluin, Marieke, & White 2014). “Current sociological thinking recognizes this: human caused environmental damage is seen as the major contributors to contemporary risky society”. (Spapens, Kluin et al, 2014 p. 7) To completely understand the social world one must not separate it from the natural world, this is an ecological informed approach. Our world is a single ecosystem where everything interacts even though assumed to a lesser degree. In most cases perpetrators of environmental harm are powerful economic actors who are economically influential. In order to understand environmental harm one has to consider political and economic factors (Spapens et al, 2014, Pierson, 2010).

Deep ecological movement calls for “critical understanding of man- nature relationships and basic changes which would affect every aspect of human life” (Guri, Ragnhild, Aslaug, Rune, 2012, p.38). The necessary ways for prevention of nature’s exploitation by creating moral communion between nature and culture, eco- global crime does not only study relationships between nature and society but is extensive to the interconnectivity of culture and nature to “society’s” use of and damage to nature, and the way in which nature encroach on societal and cultural.

Eco-social theories focus on human interactions with nature, the way human use or abuse natural resources and all biospheres. As an ecological whole the ‘environment, non-human animals, as well as human are victims of exploitation and abuse of nature’ (Guri et al, 2012 pg. 39).

Figure (c) Colobus monkeys jumping around from the wild in Nyandarua
5 METHODOLOGY

Investigation method that was used for this thesis is qualitative research for data collection through interviews with chosen farmers, interview from a professional in the relevant profession, and field observation within a farming community in Kenya. Interviews can be used in instances where a study is focused on the meaning of a phenomenon to participants, or where personal accounts are needed for explaining how a particular phenomenon came into being (Robson, 2002). Interviews were conducted using semi-structured format of interviewing. So as to let the conversation develop within the area of interest; in using semi-structured interviews ‘a researcher follows up areas of interest brought up by the participant while keeping in mind research question (Newman, Moseley, Tierney and Ellis, 2005) the advantage is that this is a flexible way of finding out things.

Another reason for using this method of data collection is because, to gain knowledge on a subject for investigation is not only based from literature and theoretical studies, but being out in the very vicinity where the interviews are conducted provides an interviewer with not only introduction to the language, but the daily routines and the structures of power. This way interviews give a sense of what interviewees will be talking about (Kvale and Brinkmann, 2009). Being knowledgeable of the local situations may sensitize the researcher to local ethicopolitical issues of the community that, need to be considered when conducting interviews as well as when reporting the interviews. This way, one knows how to go about an issue, what can be asked and in what manner. Used is semi structured interviews, whereby I took questions depending on the order that followed a given hint from interviewees, whenever I changed wording, I clarified reason for doing so. In using interviews, the interviewer can also organize so that the interviews are conducted privately if so needed, such that participants cannot consult each other before giving their answers. My participants were met on different farms and without prior knowledge of my coming so even though I did not organize it there was advantage that they had not talked to each other about my presence, the distance between the farms where I made interviews were quite far apart and none of them knew where we had been or were going next.
5.1 Literature Selection

I made library search at the university’s library, EBSCOhost, concentrating on the social work subject guide area. I searched from the library’s eBooks collection; journals from EBSCOhost. Search words used were, environmental degradation and Poverty, agriculture policy and poverty, sustainable agriculture and food policy, organic farming sustainable agriculture and eco social work. I got several e books; and found journals from Discovery, google scholar; I looked mostly, in the recent years from 2000 up till latest year and peer reviewed also from googling the internet from different international world organizations. This was because I hoped to see that the idea is recent enough to help strengthen the research. The books were many but I took several those which mostly related to my area of interest, touching on the third world, sustainable agriculture and environmental degradation. Journals found were equally many. International world organizations sites were googled because they form part of the institutions that operate the world over, working with nations in making policies that should help govern the world for betterment of human life. They also have influence on what happens in different parts of the world of which nations are member states of the United Nations. Now that almost all organizations are talking sustainability, from the literature I could see their take on my research area. Reading was concentrated on the area of research interest to help reach the aim of study.

5.2 Mode of Procedure

Being worlds apart I had to find someone in Kenya whom I would keep in touch with for helping me with facilitation of meeting my intended sample of participants. I first contacted many organizations with my idea. All had a chain of bureaucratic rules that would take me long time to go through before starting my project; however I managed to get an official from a reputable institution that work within the field of plants health and who after reading my plan, saw that the idea was important and relevant, and so was willing to help me with organizing field trips to the farmers. This help had connection with farmers, agricultural officers and other organizations; he agreed to help me secure face to face interviews and took me to a community in Central part of Kenya.

Community members are small scale farmers whose economy relies on small scale farming. The community practice both animal rearing and plant farming. Crops grown are cabbages, carrots, snow peas, sweet potatoes, and French beans. They practice
monoculture growing crops mainly for export and sale in big towns / cities; a little is left for domestic market. Here some farmers own land but farm the land as contract farmers for companies which are exporters, but which neither own land nor farm in this place nor work it.

My samples for interviews were crop farmers who live in the community and whose livelihoods depend wholly in agriculture or crop farming. The samples are small scale land owners since this will differentiate between those who practice on large scale and who might not have greater effects as the small scale farmers. The sample was chosen so that it included those who have practiced agriculture over time, they were of age 50 and above. Two women were interviewed to represent women’s view not because there were few women but because both farmed as family, man and wife and because it was good to also hear from the women without the men’s voice, to see if there were different views. In Kenya as in other developing world it is mostly the women that produce rural food as well as sell the residual for economic support. This is employment for them, even though this always goes unrecognized. As I was going to do some writing and tape record to complement my interviews I needed a helping hand someone who would take care of the recording, so I took along my brother whom I had briefed five days earlier of my intention to conduct field interviews and who was willing to help me in this endeavor. So even before going to the fields my brother and I had met my contact person so that I could inform the contact of my intention of bringing a third party with me to the field and why. When we came to the fields, we did not meet the farmers in one place but were received, by the chairman of farmers in the community whom after being briefed with my contact why we were there organized so that we could go round to different farmers and make interviews. When we came to each farm we first made introduction of which we told of our purpose for visiting their farm and asked of their permission if they were willing to make interviews with us. As each said yes after the introduction I showed them the letter of certification from my supervisor, I then read the consent letter to them so that each understood that they were not forced to participate but would withdraw if they so wished or if they would not want to answer some questions. This is as is required of by research ethics that one must seek consent form participants before involving them (D’Cruz and Jones, 2004).
5.3 Instrument of investigation

I used face to face interviews using semi-structured interviews in getting the data. ‘Semi-structured interview focus on obtaining description of participants’ life world so as to get meaning of a phenomenon according to Kvale and Brinkmann. Semi-structured interviews apply a predetermined guide that may contain topics to be discussed’ (Kvale and Brinkmann, 200, pg.130) Semi-structured interviews are often preceded by observation, informal allowing the researchers to develop a keen understanding of the topic of interest necessary for developing relevant and meaningful semi-structured questions (Cohen and Crabtree, 2006)

Advantages of this method, is because, interviews, are adapted to collect generalizable information from almost any human population, interviewers can clarify questions, and being the physical presence of the interviewer encourages participation and involvement. Use of semi-structured questions offer possibility of modifying line of inquiry, following up interesting responses seeing the non-verbal cues can give messages that help understand verbal response (Robson, 2002)

Lastly interviews help in collection of supplementary data such as the respondent’s background personal characteristics, as well as the interviewee’s environment reveal a lot of information that can be helpful in interpretation of data (Nachmias and Nachmias, 1996). My being present at the vicinity enabled me to see how the farms actually looked and even saw what was happening in the nearby areas this revealed a lot. Sometimes an interviewee pointed out to happenings around us.

Disadvantages are that, interviews consume time, they can go for long. Getting permission to visit or making arrangements take time (Robson, 2002), interviewing has disadvantages of higher costs, if respondents are widely dispersed, the cost of travelling to reach each of them and where there is extra expense in recordings and processing interviews. Not to forget that there can be biases (Nachmias and Nachmias, 1996) which can occur despite the fact that interviewers are warned to be objective, and to refrain from communicating personal view. They at times give clues that influence on respondents answers. This can happen by non-verbal communication, just as the interviewer may use this form of communication to read something out of respondents.
Lastly as there is lack of anonymity, the imposing figure of the interviewer may impact on the interviewee who may feel intimidated (ibid)

5.4 Credibility

A good research is replicable. A research tool has to be consistent, stable, predictable and accurate so as to be labeled reliable. “A scale or test is reliable to the extent that repeat measurements made by it under constant conditions will give same results.” (D’cruz and Jones, 2004, p. 67) Replicability is related to reliability meaning if another researcher used same tools as one before he/she had used for the study the results will be similar. Validity is the accuracy of results; if there are any established relationships in findings (Robson, 2002). Generalizability is the extent to which a finding of an inquiry is more generally applicable such as contextually in some situations, times or to people other than those directly involved. Though this research is done on a small area, and interviewed just a few, its relevance cannot be under graded since it touches on an area that affects all societies and its findings might be replicated in different regions globally, as it helps show how small scale farmers living conditions are affected by poor agricultural practice.

The samples comprised four men and two women, though small a number to be investigated I have the confidence that the same interview conducted other place using the same method could replicate the finding. ‘Pilot study’ in testing reliability a researcher needs to get consistent responses from persons who are not actual informants of the research to answer developed questions (D’Cruz and Jones, 2004, p. 69). It is assumed that it is possible to develop questions that will yield similar response if asked at different times across a group of informants. If there be two sets of similarity in response it is a sign that questions have high validity (D’Cruz and Jones, 2004). Though I did not do a practical pilot study, I had earlier sent a set of questions to my contact person who is also a field officer working with farmers on issues of plant problems. This person was to verify if the questions were in line with what I intended to investigate. And to see if there was possibility of getting positive results for the study, this was a way of testing if the questions had relevance to the study. It is from here that I also got the confidence.

Internal validity of research ‘is the extent to which researchers are measuring what they think they are measuring’ (ibid). This validity can be done in three ways through criterion, content and construct validity. By criterion a comparison is made between a
researchers own developed research with another measure that is representative of the criteria being investigated. High validity is achieved if there be similarity. I used the earlier research as a criterion of measure. Content validity is representative of content of the instrument; this is based on the logic connection between questions and study objectives. Questions to the informants and the themes of observation were directly associated with research questions. The questions were based on the themes of land degradation its effects on farmers lives, farmer or community poverty as resulting from land degradation effects, as well as the benefits of sustainable/ organic farming.

Construct validity (D’Cruz and Jones, 2004) looks not only at the instrument but also the underlying theory. Here the literature review helped to develop practical aspects of research. As a novice I used the literature that I had found earlier, to compare to my findings for making construct validity.

To limit threats to validity I tape recorded the interviews so as to not lose information and avoid describing inappropriately or inaccurately (Robson, 2002)

5.5 Ethical Standpoint

Ethics are a set of principles that guide conduct of behavior. All professions have laid down ethics to this effect. Social workers code of ethics by NASW (National Association of Social Workers) has listed several ethical guidelines to right practice. Among the principles are values which, both social worker professionals and social work students should adhere to. The code of conduct requires that social worker “use clear understandable language to inform clients of purposes of services, related risks……rights to refuse or withdraw consent as well and allow client opportunities to ask questions”. Social workers should obtain clients’ informed consent before audio or videotaping or permitting observation of services to clients by a third party. (NASW, 2008) For confidentiality purposes, social workers should not solicit private information from clients unless it is essential for conducting social work evaluation or research. (Kvale and Brinkmann, 2009) Informed consent entails obtaining voluntary participation of informants and informing them of their freedom of withdrawal from study at any point if they so wish giving information of research purpose and participant confidentiality, that information revealing client identity will not be revealed is given beforehand.

I went out to make field interviews in a community in central Kenya not as a working social worker, but as a student of social work and so had to observe these principles of
conduct as a student of social work. This community stands to benefit from the research if the knowledge of effects of land degradation is known and right steps taken by the concerned. I needed to record in tape the interviews so I asked for consent from participants if it was okay with them, and each agreed to this. And so the results are written as well as tapped. Because I wanted my brother to do the tape recording, I asked the clients for permission of observation by a third party and I got this too, the ones willing to partake of the exercise was promised confidentiality.

6 RESULTS

The result presentation is based on the themes found in earlier researches as well as the gathered interview data. The question of how farmers experienced life in the community was met by recounts of hard life situation of the six farmers interviewed; only one gave negative recount as to his life not being hard. The main things that emerged from the interviews were degraded lands, poverty of farmers in the community, where poverty was seen both in terms of economic, social and political issues, poor health, and lack of informative knowledge on the best farming practices all different perspectives.

6.1 Environmental degradation effects on health, land and ecology

The use of pesticides has been found to have negative impacts on human beings as well as ecology. Though affecting all human susceptibility is found to be higher in women than in men in regards to certain cancers caused by some chemicals from pesticides which act as endocrine disrupters that lead to cancers which are hormone related (Zseleczky, Christie and Halleegoah, 2014) health threats from pesticides are indicative of how much the agrochemicals degrade farmers’ most important asset the farmers body capital. The question of how food production affects health received these answers:

One interviewee said

People here have been affected by the chemicals that they are spraying on the farms to kill weeds and insects, even those that they spray on their animals do cause harm. We do not eat healthy foods because of the applied chemicals. Most of us today look much older than even our own own aged fathers… this is because of the things we eat and the resulting poor health. Spraying has affected animals like cancer on animal skin we have seen sores, some people have contracted brucellosis from drinking affected cow milk.

‘Risky society’ from eco- social work perspective pinpoints to the harm industrial society creates among which are ozone depleting substances, air and water pollutants,
production of harmful chemicals, destruction of habitats, other related problems are cases of cancers, health problems, food and water shortages etc. (Spapens et al, 2014).

Second informant said

Using chemicals in food production is not good but we need money to catch up with the Competition some farmer’s hands have had color change due to lack of protective gears. Due to misuse of chemicals some have eye problems and even skin problems. One time I got very bad headache when I came to my farm to weed, few days after spraying.

The third said

If wrongly used the chemicals or plant treatments are not good on health. If the farmers do not keep to the requirements and makes people eat the foods from the treated products or animals then people’s health are affected the doctors keep the records of what kind of medicines was given to the animals and they say how long it should take before one can milk the cow, but sometimes a farmer is in need of money and sells the animal before the waiting days, if the butcher slaughters the animal for food the medicine will affect those who eat it.

The fourth recounted

Even those who practice organic farming cannot escape the chemical poisoning, one can eat organic food from ones farm, but when the same person travels to some place out of his/ her home they will be forced to eat anything out there not knowing how the food was produced. Therefore it is difficult to escape… we farmers need money and because of that we are forced to use the things that we are told are best for much produce.

Alleviating poverty is not simply a technical resolution to problems of income or distribution of resource but must involve social and cultural factors. As opposed to economic freedom, economic security is what is needed. The approach requires that ‘economic issues be dealt with together with political, social and cultural factors.’ (Hugman, 2010, p. 69) A focus on community that treats resource issues inclusively and bases interventions on human capital and participation. Social development must embrace poverty alleviation not solely economic. Human capital to involve participation, local control, education and access to knowledge is a necessity as a resource.

Social work should integrate macro-, mezzo-, and micro concern. Incorporate individual concerns with that of the community and work together with the authorities at macro level to address the concern, plan programs, management and evaluation, include meeting with different groups within the community. Identify and mobilize resources and negotiate at different levels of the government (i.e. agricultural field officers), advocacy and directly work with groups in the community such as chairman of farmer society to resolve community problems. (Hugman, 2008)
6.2 Soil degradation, effects on ecology and agriculture

The three basic aspects of soil are its physical structure, chemical content, and biological activity all interconnected. The soils quality depends on proportions of organic and inorganic material that compose it. Mineral content of soil determine its nutrition quality and that of the plants that grow in that soil (Drew and Lorimer, 2011). Soils are alive breathing with organisms which thrive in its organic content and which make the soil not dead sand but living.

Nematodes live in soil turning the earth breaking down and distributing organic matter from the top soil. The nematodes dropping are mineral rich such as calcium, magnesium and phosphorous that is all important for healthy soil and agriculture. From the interviews with farmers I got narrations that reflected on the effects of degraded soils and loss of ecology.

Farmer number one said reflecting on soil degradation

we suffer climate changes due to degraded environment,
we have lost the good insects which were helping us farmers by pollinating
and turning the soil. Remaining now are the enemy insects. We are left with bad insects after the good ones have died from spraying. Other types of land degradation are use of fertilizer which make soil very poor, and soil erosion,

Informed ecological approach does not separate the social from the natural. Humanity is nature. Our world is a single ecosystem where everything interacts; harm to the environment affects the weather, water and other natural systems on which the society is dependent (Spapens et al, 2014).
Mono-cropping farming increases pesticide use making crops more vulnerable to pests. (Horrigan, et al, 2002) Environmental impact of pesticide use includes reduction in bird and beneficial insect population, causing imbalance between predator and prey. “Runoff and airborne pesticide drift pollute both surface and ground water.” (Horrigan et al, 2002 p.2)

Unless halted declining biodiversity, poses a serious threat for the poorest as their livelihoods depend on a variety of resources and not monocultures. Genetic diversity among animal and plant varieties or species is critical in food production; development of new crops, and medicine; in pollination and soil formation, a functioning ecosystem gives food security for the poor (Göransson, 2002)

Tackling environmental harm is further affected by the fact that, "most severe forms of environmental harm is caused by normal business activities therefore considering it ‘justified’ as necessary evil of modern society.” (Guri et al, 2012, p. 274)

Questioned on, which kinds of land degradation farmers are experiencing and how they perceive the effects on the life of the community?

Another interviewee said

I practice farming the modern way. I use fertilizers to boost my farm. Sometimes I have seen my Farm go down in production, but I don’t know why, I hear people say that use of fertilizers and chemicals are bad on health and soils but I don’t know if that is the reason that affects my farm.

Freire’s education approach of ‘conscientisation’ uses education to enlighten people and thereby people lose their ‘fatalistic, apathetic, and naïve view of their reality as given and susceptible.’ (Nyirenda, 1966, p. 5) Awakening ‘conscientisation’ is a change of mentality involving realistic awareness of individuals ‘locus’ in nature and society. It is interpersonal dialogue; discovery to humanity is achieved by encounter with other humans, resulting to political participation and formation of interest groups like community organizations and labor unions which work in matters of the community’s interests. (Nyirenda, 1966, p. 6) The farmer above and like mind’s needs ‘conscientisation’ awakening so as to understand that the farm loses productivity when degraded they need change the mentality that only by use of fertilizers will a farm be better. Critical community work can help by this awakening so that they join hands and spread information. Critical social work promotes a democratic way of solving problems which is participative, humanist, values the experience it gives, and is affecting others in protective environments. (Payne, 2005)

Another participant said

If one practices farming in good ways produce will be good. I use both methods, at some places
organic and some modern methods. Organic farms retain soil the plants are good and strong. Fertilizers are both good and bad. Good because soil is being sampled to see what minerals are lacking and so one is advised what to add. Bad because long use is not good, plants grow but the Soil is degraded.

Yet another informant said.

Spraying pesticides, fertilizers and bad seeds degrade soil content, those who sale to us don’t care if the farmer destroys his/ her land, once the soil is degraded production is lowered, the Community does not develop due to poverty from the farming activities.

Casualties to environmental harm are first; the environment itself together with the ecosystem it supports. Perpetrators in most cases are powerful economic actors who are economically influential. (Spapens et al, 2014)

From one more respondent

Methods of farming being practiced is the new technology of farming, the idea is to produce more regardless of the consequences this is due to pressure of economy.

Economic development results in creation of a new food security 'survive on an increasingly eroded nature.' (Mies, Ariel, & Shiva, 2014, p. 270) happens when economic development erodes the commons on which human survival is dependent on. Clean water, fertile soils, and crop and plant genetic diversity. Economic development and commercialization that is recognized as root cause to the South’s ecological crisis is now being disguised as “sustainable development” (Mies et al, 2014, p. 270) and paradoxically is being offered to the same south as cure for ecological crisis, losing the meaning of sustainability. Sustainable development, an ideology within the limits of market economy revives further the argument of market based solution to ecological crises, and belief that, only through the market, can there be possible steps to conservation (Mies et al, 2014)

Figure (e) A degraded sweet potato farm
6.3 Poverty

Rural wealth is counted in contextual terms of cattle holding, quality of agricultural implements, labor resource, access to land and a household’s ability to produce food. Just as indicated with the perspectives of poverty see concepts above. Poverty is not only monetary but involves a lack of many things essential for sustaining human life. This poverty is categorized in terms of natural resources, human resource, assets on farm physical and financial (Gray and Moseley, 2005). If one looks at rural poverty from different angles it might not matter that a farmer has much money but not the other things that count. From looking at the farmers lives one cannot rule out poverty from their lives if they are faced with poor health among other things as recounted by them here. Poverty induced environmental degradation is a general phenomenon which happen across all categories. The characteristic have some bearing on the way in which a resource poor or rich household interact with the environment.

Asked what were the challenges farmers faced in poverty alleviation? The first interviewee responded to life experience as:

We experience hard life; farmers rely on their farm produce. Poverty comes when a farmers produce is low, low produce means poverty as one cannot recover cost of production …there is shortages, the produce is not enough we are denied access to markets since we sell through brokers, lack of access due to process and costs we need sponsors or the government to bridge the gap so that we can reach the market directly.

The poor also suffer lack of access to markets and information inability to enforce their rights and organize themselves. Relegated often to margins outside the formal sector of the economy, resulting is high transaction costs, low returns on their productive resources and increased vulnerability (Göransson, 2002)

Winners and losers are created in patriarchal capitalist society where power and privilege goes to winners, losers get oppressed (Healy, 2000). From a critical social work perspective there is a need to move away from the professional doctrine which ascribes clients’ problem experiences as resulting solely from the clients’ individual behavioral ideology, directing clients to blame themselves for the suffering rather than looking at the economic and social institutions that produce this travail. In the case above it is unfair to put blame on the farmer for their poverty and yet the responsible forces keep them in the situation by making it not possible for them to access markets where they can negotiate their prices. This way of unfair trading winners are created in those brokers who operate from higher ranks with authority and losers are the farmers.
Farmer number two said

Crop production goes down, showing that the land is degraded. Our challenges are many, low
Price in the market and high cost of production, low produce due to degradation, climate change…

The relationship of environmental harm and other social issues vary. The link more
‘eminent in places where the nexus between social harm and environmental issues is
more direct, hence for reasons it is common in developing and poor countries rather
than developed, or rural rather than urban.’ (Spapens et al, 2014, p. 18) However a
number of environmental harm affects even globally.

Yet one more informant said

Farmers experience problems of climate change their produce is low, soil fertility is poor. Top soil
is degraded by soil erosion, insects like aphids drink plant water, cut worms cut plant roots. We
have shortage. Good farming needs much money but we do not have enough

Poverty can be measured by lack of assets, access to infrastructure, services, education
or other factors that determine a household or a community’s livelihood status;
circumstances that surround relative poverty refer to concepts above. Degradation of
land contributes to continued or worsening of poverty through low or declined

One farmer revealed that he and some in the community were contract farmers.
Meaning they owned the farms, but farmed for companies under contract. The
companies give the farmers seeds, fertilizers, and directions for farming. The farmer
then work the land and the company take the produce to sell to the markets giving the
farmer the amount of money that was contracted. This farmer considered did not
consider he poor like others; he is convinced the company gave him what they had on
agreement. What remains to be questioned is the role played by land degradation on his
land. Looking at poverty from diverse angles, such as lack of knowledge for ones rights;
and going by the economic Sociologists reasons for poverty like the roles played by
culture, power, social structure and other factors which are all beyond an individual’s
control (Smeeding, 2001). From what he said one can see that he is poor just as the rest.

This is what the informant said

Small farmers cannot reach markets because of high costs that companies take. If the government
can bring depots nearer to us could help. Companies come to the community, we make
agreements with them, they even follow up sending agronomists to make sure we follow what
they want, I think farming is good if one follows the directions given by the companies.

Commodification of human and environments destroy both natural environments and
society. Unregulated markets lead to social anomie. Any society that do not recognize
the sacred dimension of nature and human life as innate way beyond monetary gain commits collective suicide. (Dalton, 1968)

Diversions happen on peasants fertile lands. Rather than farmers growing food for the family’s sustenance, the lands are used for growing crops for export monoculture crops which use land in ways that are unsustainable for ecology or peoples food entitlements (Mies et al, 2014)

One more respondent said

we have problems with farming methods, we need someone to come and teach us on proper ways of using the chemicals, sometimes farmers use too much chemicals or do not follow the good procedure sometimes some products have been sent back to us when it was discovered it had too much chemicals and could not be sold to the outside markets, what can one do when one has used too much money in producing the food and then it comes back not being sold… you see that is a loss to the farmer making us poorer.

Figure (f) Monoculture growing of crops

6.4 Sustainable/organic agriculture

Organic farming depends on management of soil organic matter for the enhancement of chemical, biological and physical properties of soil, (Ramesh, Sing and Rao, 2005). Plant nutrition depends on biologically ‘derived nutrients rather than use readily soluble nutrients. Improved soil biological activity is known to play a key role in weed, pest and disease suppression. Animal dung, crop residue and green manure are rich in mineral and nutrients’ (Ramesh et al, 2005, p.3).

These manure are capable of filling nutrient demand of crops and promoting activity of beneficial “macro- and micro flora” in the soil. (Ramesh et al, 2005, p. 4) Organic food
production aims at achieving agro ecosystems which are socially and ecologically sustainable, they aim at minimizing or avoiding external inputs such as fertilizers and pesticides by encouraging use of farm resources.

Synthetic chemicals like fertilizers and pesticides pollute water, air and soil causing harm to the environment and human health. Soils erode faster than it can be restored, thus diminishing the lands fertility and nutrients that nourish plants and anything that eats it (Horrigan et al 2002). Sustainable agriculture systems are based on relatively small, profitable farms that use fewer off farm inputs, integrate animal plant production where appropriate to the scale of production. Food sustainability system involve close connections between production and consumption meaning, direct marketing of foods locally to consumers through farmer markets community supported agricultural farms, farmer cooperatives saving less energy use for food transport (Horrigan et al, 2000)

Asked, if traditional knowledge can contribute to agriculture?

Another farmer said

Traditional agriculture can contribute to best farming knowledge, by alleviating poverty as the produce will be high, it will sustain soil. Health wise will be good for both farmers and those who eat the foods, the soil will be sustainable

Interviewee three recounted

Traditional farming knowledge can contribute to agriculture it does not destroy soil, I would recommend traditional methods, it keeps the soil well for the next generation. Now, it is like we are leaving torn clothes to our children to wear when we are gone, the new technology destroy land. In organic farming production is low but healthy. In farm production by fertilizer one has to go through a lot of problems.

Another farmer said

if one practices farming in good ways produce will be good. I use both methods, at some places organic and some modern methods. Organic farms retain soil, the plants are good and strong……..

Eco- social models combine diversity with social responsibility that includes not only the local environment but the planets future. Social capital building, community action, green politics, work together to bring about sustainability in the communities through community participation, use of social work knowledge to influence planning ‘political decisions on sustainability issues and incorporate eco-social approach of individual, groups and community.’ (Stepney and Popple, 2008, p.129) Challenge however is that using this model must address structural problems, while it goes hand in hand with enhancing knowledge of community members. In the interviewed community, there is a need for an eco- social work approach where farmers should be involved in
participation, in which political actions should be taken to bring about change by making proper decisions on farming methods suitable for sustainability.

All interviewed farmers were in agreement that organic agriculture is good and sustainable but yet one said that organic farming was expensive, not only for those who do not have animals and so have to buy manure, but also because it involves more work on the farm. This farmer had a heap of animal manure in his compound he was more aged as compared to the others interviewed, he was therefore much more aware of traditional ways of farming. He said about organic farming

Traditional methods of farming are good and saving costs on the farms, use of protective methods
Prevent soil erosion; use of organic manure keeps soil nutrients… organic farming is though very expensive in terms of intensive labor and if one has to buy animal manure it is costing.

Ecological citizenship considers both environmental and ecological justices which involve relationship between societal, natural, and to protecting the health of the biosphere (Guri et al, 2012)

Yet one more informant added

Traditional agriculture is good because it uses crop rotation, but because of business we mainly use modern technology

But this one farmer differed with the rest on traditional farming he said

Traditional farming cannot help because they use traditional seeds; their ways of spacing is wide. we in modern farming, plant using narrow spaces as told by the companies, I think farming is good if one follows directions given by the companies. In ‘conscientisation’ an individual must change his/her attitude, perception or belief and not to accept that social reality can neither be questioned nor changed. Learning should come from the learners experience or actual social realities. Literacy according to Freire is not only reading and writing but being competent in terms of consciousness. This teaching is not top down but ‘shared investigation in a problem raising situation between educator and ‘educatee.’ (Nyirenda, 1966, p.7) it is a critical approach to community work. Where there is a dominant culture of silence people are domesticated (denied power to think for themselves). Individuals are taught to take what is handed them by ruling elite with no questioning, thereby accepting their social reality as they are told to accept and believe. Culture of silence ‘mute’ the masses from creatively transforming their society therefore people are prohibited from being (Nyirenda, 1966, p. 7). The masses were taught in humanitarian not humanist literacy campaign. They are kept at bay from the power responsible for their silence (Nyirenda, 1966).
Critical social work recognizes peoples need to education by raising awareness. Whereby they get to know that what they are told can be questioned, and that they as a people can rise against these negative teaching instead of accepting what they have been told as social reality even though it might be harmful to them or are negatively experiencing the effects. If the farmer above was conscious of the best farming methods, he would not dismiss traditional farming as bad. The wider spacing makes the soil breath and give plants enough space to grow and so need not add nutrients to the soil for crops to have enough to eat, sunlight also goes directly in. Soil is alive and must be protected, taken good care of for long term benefits in production and stability. In healthy soils there is life moisture is retained, air circulates, worms mix the soil naturally, and decomposition of microorganisms’ organic matter occur, these soils are healthy. (Reganold et al, 1990)

6.5 Challenges faced by farmers in improving living conditions in the Community

Crops grown in this community is mainly for export. Their produce is basically not for domestic subsistence but for economic gain; a small quantity is sold locally, in the local market. Life for this community is not as easy as one can judge. This might not be the case for all in the community, but that is dependent on who is being interviewed for what reason. But, going by the samples answers as representative of farmers in the area there is proof that farming does bring them hard living conditions. In the community there are those who derive economy from other activities that are off farm. Since my research was on farmers I do not have the voice of those who do other businesses. But farming being fundamental to the community all other sectors are affected when farmers don’t have enough I suppose. The hard life can be seen from the answers of the few interviewed farmers

Informant one said

A challenge is that there is lack of knowledge for how to make better choice for faring …..

     living costs is also high because it costs to treat diseases that infect people

Number two said

Problems of reaching the markets where we can sell our products directly….Selling to the companies we get little money hard to meet costs of even educating our children…..

Another informant said

Challenges to farmers are, poor sales; too much rain or drought, there is also problem with too much Cold, frost affects the beans we therefore must spray anti frost
Yet another informant said
Our challenges here are low price for our products, we have no direct access to markets, the ones who sell gain from us farmers, we use high costs in production, buying certified seeds, fertilizers, and anti- weed sprays, also low produce due to degradation since 10 years in recent times due to climate change, human cut trees and spraying plants with chemicals cause problems….agricultural officers should come and educate us but they never come…

Through *conscientation* people can organize themselves for taking action that changes their social realities; it entails people’s right to knowledge and culture, right to criticize their situation and act positively upon it (Nyirenda, 1966). Critical social work theory stress Social work education should be focused on poor people in society, education can bring major differences to poor people’s lives, education, brings ‘social identity with the aim of personal and social growth as opposed to simply resolving personal problems.’ (Payne, 2005, p. 214)

A participant recounted
The environment is affected too, the climate changes, the crops get diseases that we never witnessed before, the soils is degraded, ecology is affected all our insects disappear like the caterpillars, earth worms even bees ladybird etc… other problems are of selling outlets, conditions that are in the way like the laws made by international markets

Yet another participant revealed
the government should be helpful in assisting us check on how to make good farming practice, the government should help us access markets which is a big problem for us.

one more participant revealed
Farming produce is not enough, there is shortage, good farming needs money but we do not have enough our soil is degraded so causing the shortage…. If one practices farming in a good way by preventing soil erosion, making crop rotation, planting trees for support as wind breaker, harvest rain water to use in dry spell to save ground water has benefit.

6.6 Passing knowledge to farmers on best farming methods
One of the interview questions put to farmers was, in what ways could farmers be made knowledgeable or informed of the best farming practice?. This question gave almost same response form the interviewees. From their responses one could deduce that they yearn for knowledge on best farming methods. Even though they have an idea that organic farming which they equate with traditional methods are good, they are left with no options when faced with market economic demands of more production. Since their economy relies on their farm produce they have to follow the ways recommended by the market demands and thus degrading their lands. This would
otherwise be changed if they had proper knowledge in the best farming methods but how that knowledge should come to them hence the question,

The first interviewee

Farmers should be educated through the media, extension agricultural officers,
Meetings and through churches

Second interviewee

Farmers can be made knowledgeable by education through agricultural officers, any authority to help get to markets, agricultural officers should teach inform of the best seeds to buy

The farmers in this community hope for education on the best farming methods. And which some already call traditional methods. Critical social work theory promotes and raises people’s awareness to social inequalities (Payne, 2005) from which the farmers can see that the companies are operating from the dominant position of self- gain but not for the farmers’ interests. Critical social work can help the farmers form strong groups where they can support each other with gathered proper information from those who have knowledge on the best farming methods. They can therefor use this knowledge to build collective empowerment and work collectively in the built strength so that the companies can be compelled to listen to the farmers and work with them for the best instead of ruining the farmers’ land.

Community development practice works with local groups in increasing their levels of participation, such as defining their problems, and shaping solution for the community. It works for improving the livelihood of the community as a whole (Pierson, 2010). As the farmers recognize that they need knowledge, both community development and critical approach can be applied together to define problems, and come up with way forward to solution. Form self-help groups, spread information in the groups, and work collectively to practice best farming methods.

Another respondent farmer said

agricultural officers should come and educate but they never come that is why farmers practice these methods of farming

One more said

The government should be helpful in assisting us check on how to make good farming practice, we should be given technical support by the government

The responses here show the need by farmers for knowledge and support. Famers and the public need to be adequately informed of practical and applicable farming methods of local farming, education to entail potential adverse environmental and health consequences of pollution from agricultural practice (Reganold et al, 1991).
The three ways of reaching out to communities and victims of environmental harm are first to learn the community and its problems, second is gain rapport and provide a voice, finally lead in original research and legal advocacy in order to help fight over power and representation (Spapens et al, 2014). The farmers can only stand against the companies when collectively they have gained knowledge and began working in the strength groups where they can create power and make decisions.

7 ANALYSIS

From the interviewees’ responses, land degradation has affected them negatively. The result shows poverty in its wider terms that embrace economy, social and political. Financially they lose from effects of degraded lands that yield low produce at high costs of production and lack of access to markets. Politically they feel neglected by the concerned authority the government, whose presence is not felt. Socially they lack knowledge on best farming methods that are sustainable and developing.

In Community social action, whatever is done must be managed within the community. Social work need stimulate and create the action groups, assist and support these groups in engaging with institutions. Being conflictual it involves macro-level social work which is part of critical social work approach. Social development seeks to bring equitable distribution of income and wealth for promoting social justice and efficiency. Economic development should be in consideration of benefit to both living and next generation, this is sustainable development.

Poverty alleviation is not to simply find technical solution to income problems but must be connected to social and cultural factors. There is no possibility of development solely based on economy; rather the goal is social development where poverty alleviation is part (Hugman, 2010). Of necessity is human capital of skills, participation and local control, education, and access to knowledge which are implications for social workers who seek to assist clients in poverty alleviation programs, “theorizing including understanding poverty becomes a matter of learning from, rather than about the people and communities involved.” (Hugman, 2010, p.69) social development seeks creation of resources for the community by linking social with economic developments. Developments must be compatible to the community collective strategies in social development (Payne, 2005). Governments should be involved as the state incorporates the interests and social aspiration of its subjects; it is only the state that can develop
large scale social planning. Social development raises awareness by advocating for social justice to draw government’s attention to issues of communities concern. The responses from the community’s farmers draw one to the need for social development and action.

One interviewee

The government should be helpful in assisting us check on how to make good farming practice, we should be given technical support by the government.

Community social work should involve individuals or groups to benefit the wider community (Stepney and Popple, 2008). Collective empowerment addresses questions of social justice, diversity, and equality. To be addressed at all levels. At societal level, connect personal experience with empowerment and collective action, addressing issues of justice differences and change for a sustainable world. It calls for practitioners to be well knowledgeable in the subject area as well as respecting others knowledge. At policy level for collaborative work, it needs a common sense approach of ‘respecting differences in order to find solutions that go beyond the persons own limited vision of what is possible’. (Stepney and Popple, 2008, p. 121) A community social practitioner need plan using the six steps of collaborative community empowerment see appendix A.

Second respondent said

Farmers should be educated through the media, extension agricultural officers, meetings and through churches.

From the third respondent

Farmers can be made knowledgeable by education through agricultural officers, any authority……, should teach, inform……

Information is a strong tool for passing knowledge, but among the problems that lead to escalation of environmental crimes is failure by the media to convey to the public knowledge of environmental harm in a way or language that the public can relate to, and thereby take action. (Guri et al, 2012) Dissemination of consequences caused by pollution and its relationships between human and nature is hindered by scientific disagreements of politics, economic contradiction and limited printing space leading to fragmentation of news articles that mislead the public on important social issues (Guri et al, 2012).

The Fifth interviewee requotes,
Our challenges here are low price for our products; ....buying certified seeds, fertilizers, and anti- weed sprays, also low produce due to degradation....agricultural officers should come and educate us but they never come

The scarcities of most natural resources result from overexploitations which are driven by economic growth, and yet there is no possibility of regenerating the very areas that economic development degrades. As the economy grows it causes imbalance. While natural resources are transformable into cash, cash on the other hand is not transformable into nature’s ecological process. Economy currency in nature is life not money. Life is irreplaceable even in economic development. (Mies et al, 2014)

One informant said

Small farmers cannot reach markets because of high costs that companies take.....

Individual problems are a product of social relations in a capitalist society. Capitalism is an economic system where few people accumulate wealth to invest in production of goods, while others ‘sell’ labor to them for wages. It is hard for workers to accumulate capital from the little wages resulting in the workers losing control of the ‘means by which goods are produced in society.’ (Payne, 2005, p.230) the injustice and inequalities are results of societal structure. Resolution is therefore by bringing social change politically and socially.

Eco- social work approaches are holistic and take into consideration global environment, including environmental impact, analysis of social area in which social workers operate involving plans of social action relevant to communities needs and interest. Eco- social work promotes positive use of natural resources and self-consciousness about life styles respectful of environmental resources. Along with this are the ecodevelopment and ethnodevelopment perspectives that seek sustainable development which do not encroach on natural resources.

Critical social criticizes the dominant discourses of capitalism, economic liberal or economic rational approaches. Critical social work seeks promotion of, and raise awareness to social inequalities, political action and social change. This change helps in combating cultural hegemony, by which the powerful maintain a social order that is beneficial to only them this; they do by integrating social beliefs into people’s cultural life. (Payne, 2005)

Respondent one said

Using chemicals in food production is not good but we need money to catch up with the competition

Yet one more respondent said

... we farmers need money and because of that we are forced to use the
things that we are told are best for much produce.

Capitalists are driving the world to doom with their market economy, killing nature as they go along in search for profit and gain. Loss of global biodiversity is blamed on economic imperialism of large transnational cooperation’s which do not realize the importance of biodiversity to human survival, but if they do, then, their economic driven greed does not. (Besthorn, 2013) Rather than they investing in biodiversity protection, they focus on cheaper production and higher profits this investing in “green washing” where corporations attempt to “preserve and expand their markets by posing as friends of the environment and leaders in struggle to eradication of poverty.” (Besthorn, 2013, p. 6)

One more response was

I use fertilizers to boost my farm. Sometimes I have seen my farm go down in production, I don’t know why …people say fertilizers and chemicals are bad on health and soil……

Eco-social work, calls for social workers to develop empowering and sustainable relationship. Respect for all living things, putting together social and economic activities to eradicate poverty. Promote social and environmental justice and question capitalists’ industrial model of development. (Dominelli, 2012) Survival mechanism is biodiversity dependent on ensuring each species genetic variety to effectively adapt to changing environments (Mikulak, 2007). With the loss of thousands of animal and plant species humanity is seen as committing ecocide unconsciously and hence to humans own extinction as species (Besthorn, 2013).

8DISCUSSION

Land degradation and its effects on the farmers living conditions was the topic of investigation in this study. Interest was to find from farmers how they experience the living conditions in the community as farmers in regards to effects of environmental degradation. The response was of hard living conditions. Farmers faced problems from degraded lands which was the result of the farming methods being practiced, the use of agro chemical led to degradation of land, and poor health therefore resulting to difficult life conditions which eventually revealed poverty. From narrations there were recounts to hard life conditions due to lack of access to selling points which brought a further problem that they farmers cannot have control of prices on their commodity, or produce returned to farmers due to too much chemical in them, making it difficult for recovery of incurred production costs. Some companies as revealed take the short cut of contracting farmers to produce on behalf of the companies the labor or land ownership
cost which is a loss to the farmers was not considered. Poor degraded soils, climate changes, and loss of biodiversity are among degradation effects that are experienced in the community the effects low productivity of crop yield, resulting to poor living conditions which answered to the difficult living conditions that the farmers experienced. Challenges faced to improving living conditions are lack of education on, or proper information of best agricultural methods. Not because they themselves are not aware, but because of the discourses that are in play. The farmers apply agrochemicals and pesticides to the farms including planting of recommended high yielding seeds regardless of if this is worth.

Sustainability and development should cater for the people living today without jeopardizing that of the coming generation, land and natural resources should not be degraded for the sake of development. From the interview results the community farmers, farm in ways that do not reflect sustainability of nature. The farmers hope for economic development but instead are degrading their own land and instead are faced with poverty. Poverty experienced in the community is both absolute and relative; it is not only economic but also has social.

Recommended is need for further research on effects of agro, land environmental degradation to highlight more which was missed in this simple study. This being an area of great concern to humanity serious information concerning the importance of preserving ecology is needed to the general public as to farmer communities to create awareness that will curb the injustice to the environment and save the earth and poor communities from effects of environmental degradation. Governments and policy makers need to strengthen regulation that safeguard, preserve and protect nature. Farmer education on best farming methods needs to be enhanced. Farmer to farmer networks need to be encouraged for supporting one another and create collective empowerment. Farmers are the backbone to food security and key to malnutrition poverty reduction. I suggest that a course for learning the importance of ecology and the environment be introduced to schools so that children are able to learn about it as early as possible and grow up loving to protect the environment and to eat healthy.
APPENDIX A

FIGURE 2
Six Step Process of Collaborative Community Empowerment

1. **Entre into the community**
   - Meeting with community leaders
   - Facilitator training
   - Discussion of goals

2. **Issue identification**
   - Brainstorming community concerns
   - Listing of issues, identification of community leaders

3. **Prioritization**
   - Selecting high priority

4. **Strategy developments**
   - Discussion of high priority issue
   - Introduce social ecology model
   - Adapt model for use in the community

5. **Implementation**
   - Devise action plan
   - Allocation of association of tasks
   - Implement action plan
   - Debriefing of participants

6. **Transition**
   - Discussion of results
   - Deciding further action
   - Transfer responsibility

7. **Research / evaluation from participants and wider community**

Note: Adapted from table figure 7.2 Stepney & Popple 2008 p.121
APPENDIX B

Letter of certification

LETTER OF CERTIFICATION
Senior Lecturer of International Social Work
Stefan Sjöberg
2015-03-30

To Whom It May Concern.
I write to confirm that the bearer of this letter namely Dorothy Roseline Juma is a student of international social work at our university campus Gåvle in Sweden. Ms Juma is writing her bachelor thesis now in the spring semester. I’m her assigned supervisor. The aim is to explore how land degradation influences the living conditions for a farming community in Kenya. This is an important area both to the student as a social worker and to the rural communities, since agriculture and development is a matter of great concern today. Your contribution in helping her accomplish this goal is highly appreciated; it will help highlight things that affect communities’ livelihoods, thereby helping to identify which way to go to curb the problems.

Yours sincerely

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APPENDIX C

Interviews consent form
I---------------------------------------- is a student making research on, how land degradation influences the living conditions for a farming community in Kenya. This project is for helping her write her bachelor thesis this spring. The school supervisor is Stefan Sjöberg contact ----------------------

Before I begin I would like to thank you for participating in the interviews. But know that
• Participation is voluntary
• You are free to refuse to answer any question if you don’t like to
• You are free to withdraw at any time if you want to
• You agree to being recorded for the purpose of helping us in analysis

The interview and anything that I get from here is confidential and is only used for the purpose of writing my thesis. Though I will use parts of the information to summarize my finding, there will be no mention of your name or revelation of your identity in the thesis.

Kindly sign here to prove I have read the contents to you

Sign Interviewee-- --------------------------- counter sign: ---------------------------
--------------------------------Date

Sign interviewer …………………….. Counter sign:
LIST OF ABBREVIATION

ESCAP Economic and Social Commission for Asia and the Pacific
FFLGs family farm learning groups
HDA Human Development Approach
IFAD International Fund for Agricultural Development
IMF International Monetary Fund
IPM Integrated Pest Management
LISA Low Input Sustainable Agriculture
NASW (National Association of Social Workers)
United Nations Development UNDP
UNEP United Nations Environmental Program
UNESCO United Nations Educational Scientific and Cultural Organizations
USDA United States Department of Agriculture

REFERENCES


