

**AN INVESTIGATION INTO AWARENESS ABOUT
EDUCATION FOR SUSTAINABLE DEVELOPMENT
(ESD): A STUDY OF THE FACULTY OF EDUCATION
AT THE CATHOLIC UNIVERSITY OF EASTERN
AFRICA**

BY: KINYANJUI NICHOLAS MWAURA MED/075/05/06

AUGUST 2007

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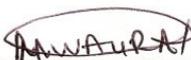
**A Thesis Submitted in Partial Fulfillment of the Requirement for the
Degree of Master of Education**

**Department of Postgraduate Studies in Education, Faculty of Education at
the Catholic University of Eastern Africa**

August 2007

DECLARATION

I, the undersigned, do declare that this thesis is my original work developed through reading, research and reflection. And to the best of my knowledge it has never been presented or submitted elsewhere by anyone else for academic credit. I have duly acknowledged information from other sources.

SIGN: Date 21/9/2007

Kinyanjui Nicholas Mwaura-M.Ed./075/05/06

SUPERVISORS' DECLARATION

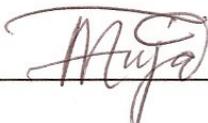
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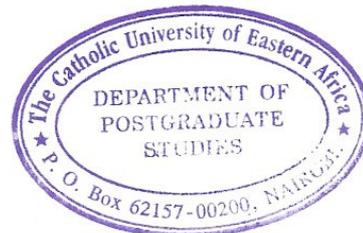
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DEDICATION

This work is dedicated to all of you who suffer as a result of social, economical and environmental challenges which can be tackled in a sustainable way in Africa and other parts of the world. I hope this study will inspire the planners, implementers and financiers of education system in our world to provide education that transforms and betters life in this earth, our current home.

ABSTRACT

The need to carry out this study was inspired by UNESCO's call for training an Education for Sustainable Development (ESD) conscious generation of teachers to enhance sustainable development. McKeown (2002) observed that the proponents of Sustainable Development (SD) had realized there could be no sustainable development in the world if teachers were not trained in such a way that skills, knowledge, attitudes and values that enhanced sustainability were inculcated in teachers during training and these be transmitted to the students and consequently the society at large. Education remains the vehicle to achieving sustainable development. The Catholic University of Eastern Africa (CUEA) is reputed as one of the greatest institution educating teachers for Africa alongside other careers. This research therefore purposed to investigate the awareness of the teacher trainees and their trainers of ESD.

The target population for the study was 81 students and 13 lecturers where 10% of the students taking B. Ed. and all the lecturers teaching undergraduate students in education at CUEA were sampled. The questions tried to find out if the teacher trainees were fully equipped with knowledge, ideas, attitudes, values and skills to work sustainably with respect for the biosphere, human life and fundamental values by the time they finish their teacher education course at CUEA. Some of the selected areas under study were entrepreneurship, environment, HIV/AIDS, ICT and Civic Education.

The research was guided by four key concerns in teacher training in line with ESD: Demonstration of ESD knowledge, Community Engagement/Service, Relevance of Research Carried out by the students in relation to solving societal Education Challenges and proposal of ESD relevant studies. The study used a combination of descriptive survey and naturalistic method to find the state of affairs.

The instruments for data collection were questionnaires and interview schedule. The

questionnaire was administered to the students. This was a useful tool that enabled the researcher to receive responses on same questions from many respondents. For the interview the researcher developed an interview guide that was used to collect in-depth information from the lecturers training teachers at CUEA. In addition, the researcher largely employed structured interview guide to enhance credibility alongside unstructured and semi-structured interview to enhance comprehensive data collection. The interview was a useful tool in generating relevant data as it gave room for probing and clarification of concepts.

Descriptive statistics was used to summarise data into frequencies and percentages. The qualitative data generated in the research was analysed thematically.

The data findings revealed that CUEA averagely offered ESD relevant studies as part of its holistic approach to teacher training. However, the studies offered that were relevant to ESD were not comprehensive and were mostly lecture hall based. There was no direct mention of ESD even though ESD relevant units were on offer. The researcher recommended that a department or centre be established to coordinate ESD studies for all students in the university not to mention the teacher trainees. It was also recommended that all lecturers be in serviced on ESD. Also ESD department needed to be developed and the same department to come up with a clear conceptual framework for the ESD to guide the university in offering Sustainable Development Education. The researcher also recommended that similar research be carried out in other teacher training institutions.

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ABBREVIATIONS AND ACCRONYMS

ESD	Education for Sustainable Development
CUEA	Catholic University of Eastern Africa
UNESCO	United Nations Educational, Scientific and Cultural Organisation
DESD	Decade of Education for Sustainable Development
NGOs	Non Governmental Organisations
WEHAB	Water, Energy, Health, Agriculture and Biodiversity
NEMA	National Environmental Management Authority
MESA	Mainstreaming Environment and Sustainability into African Universities
WFP	World Food Programme
LDCs	Least Developed Countries
WSSD	World Summit on Sustainable Development
UN	United Nations
NEPAD	New Partnership for Africa's Development
UNDESD	United Nations Decade of Education for Sustainable Development
ICT	Information Communication Technology
GHESP	Global Higher Education for Sustainable Development Partnerships
IAU	International Association of Universities
ULSF	Association of University Leaders for a Sustainable Future
RCEs	Regional Centres of Excellence
BREDA	UNESCO Regional Office for Education in Africa
HIV-AIDS	Human Immunodeficiency Virus-Acquired Immune Deficiency Syndrome
EFA	Education for All
ErE	Environment-related Education
FLE/PE	Family Life Education and Population Education
DVC	Deputy Vice Chancellor
S&T	Science and Technology
GS	General Studies

CHAPTER ONE

1. Introduction

1.1.0. Background to the Problem

Education is a term often used to refer to formal education. The word's broader meaning covers a range of experiences, from formal learning to the building of understanding and knowledge through day to day experiences. Ultimately, all that we experience serves as a form of education. The word education is derived from the Latin word 'educare' (with a short u) meaning "to raise", "to bring up", "to train", "to rear". In recent times, there has been a return to an alternative assertion that education derives from a different verb: educere (with a long u), meaning "to lead out" or "to lead forth". There is an English word from this verb, "education": drawing out. This is considered by some to be a false etymology, used to bolster the theory that a function of education is to develop innate abilities and expand horizons (Wikipedia, 2006).

Education therefore is the process of transmitting or acquiring knowledge, skills, values and attitudes to facilitate an effective and efficient life in the society for an individual and the community. It is a lifelong process that takes place formally, informally and non-formally. In all societies education is given the central place by allocating enormous resources and time for it is the foundation of any successful society. However, education per se is not what is of value; what is valuable is its ability to serve the societal needs. Education, both formal and non-formal, public awareness and training are key processes by which human beings and societies can reach their fullest potential. In a bid to respond to educational needs, Education for Sustainable Development (ESD) has been enhanced. In December 2002, resolution 57/254 of the United Nations Decade of Education for Sustainable Development (UNDESD) 2005-2014 was adopted by the United Nations General Assembly and UNESCO was designated as lead agency for the promotion of the Decade.

The vision for Education for Sustainable Development is about:

Learning to recognize, respect, value and preserve the past achievements; appreciate the diversity and uniqueness of the peoples of the earth; live in a world where resources are distributed in a way that no one is denied what they need to live happily for a healthy and productive life; assess, monitor, evaluate, care for, rehabilitate and restore the state of our planet; create and enjoy a better, safer, more just world; be caring citizens who exercise their rights and responsibilities locally, nationally and globally. Quality education is a prerequisite for Education for Sustainable Development (UNESCO Nairobi Cluster, 2006, p.4).

The Plan of Implementation recognizes two key aspects of education in relation to sustainable development:

First, education is the foundation for sustainable development and much of the work on Education for Sustainable Development (ESD) must be closely linked to the pursuit of Education for All (EFA). Second education is a key instrument for bringing about changes in values and attitudes, skills, behaviours, and lifestyles consistent with sustainable development within and among countries. Education is then meant to address such issues as gender equality, environmental protection, rural development, human rights, health care, HIV/AIDS and consumption patterns as these intersect with the sustainable development agenda (UNESCO Nairobi Cluster, 2006, p.3).

Education has kept on changing with time to meet the needs of a dynamic society. There are concerns all over the globe on the education offered; the changes in education; the curriculum and the content in relation to the challenges that face our society, hence the call for Education for Sustainable Development. Education remains the basic tool of transformation towards sustainable development. This is because education redefines, refocuses, and re-orientes people's capacities, activities and perspective to transform their visions to produce the society of their make. Education provides scientific, technological skills, the motivation and quite

paramount the justification, ethical dimension and social support for pursuing and applying them. This therefore means the only way to make a world that we want we have to pass through education as it is the most appropriate means. The teacher therefore has a responsibility of instilling ESD to the learners for a sustainable society.

The international community understands the role of education in modeling individuals who consequently make the society. The world today is threatened by lots of ills like destruction of the ecosystem/biodiversity, pollution, terrorism, heightened poverty, unfair trade and so on. Through education, the attitudes, values, behaviour, skills, technology and lifestyles required for a sustainable future can be fostered. ESD is a process of learning how to make decisions that consider the long-term future of the economy, ecology and equity of all communities. Building the capacity for such future-oriented thinking is a key task of teachers and the teacher educators should prepare teachers for this daunting task. ESD is a holistic approach that wants to make up for the ills of man and enhance a life supporting world as opposed to the already existing life-threatening situation in the world. The international community wishes to use education to transform the society to a balanced one which enhances equality and that which supports life.

Higher education has a central role in the development of knowledge based economy. Thus the overall mission of the universities according to Kurapka and Vaitkus (2006) is to prepare individuals for the labor market; to prepare for life as active citizens in a democratic society; to contribute to personal growth; and to maintain and develop an advanced knowledge base. The sole person charged with this responsibility is the teacher. Educational institutions, particularly the ones educating or training teachers, stand out as the vehicles to instilling knowledge and training the teacher with the desirable knowledge on Sustainable (SD).

According to UNESCO (2006) education at all levels and in all its forms should help people of all ages to understand the world in which they live and the complexity and

interrelationship of problems such as poverty, wasteful consumption, environmental degradation, urban decay, population growth, gender inequality, health, conflict, and the violation of human rights that threaten the future. ESD is fundamentally about values, with respect at the centre for others, including those of present and future generations, for difference and diversity, for the environment, for the resources of the planet we inhabit. Education enables us to understand ourselves and others and our links with the wider natural and social environment, and this understanding serves as a durable basis for building respect.

Along with the sense of justice, ESD aims to move us to adopting behaviours and practices which enable all to live a full life without being deprived of basics. The three key areas of concern to ESD are society, environment and economy with culture as an underlying dimension (UNESCO Nairobi Cluster, 2006). The Faculties of Education in different universities and teacher training institutions have a key role to play to enhance sustainable education. They form a link between knowledge generation and transfer of knowledge to society in two ways. They prepare the future decision makers of society for their entry into the labour market. Such preparation includes education of teachers, who play the most important role in providing education at both primary and secondary levels. Secondly, they actively contribute to the societal development through outreach and service to the society (UNESCO, 2006).

1.1.1. *Indicators of Education for Sustainable Development (ESD).*

The following areas are the foundation of ESD: environment education, peace education, development education, global citizenship education, basic education, social education, economic education (UNESCO, 2006). The ESD has been further classified in three areas:

Society: an understanding of social institutions and their role in change and development, as well as the democratic and participatory systems which give opportunity for the expression of opinion, the selection of governments, the forging of consensus and the resolution of

differences.

Environment: awareness about the resources and fragility of the physical environment and the affects on it of human activity and decisions, with a commitment to factoring environmental concerns into social and economic policy development.

Economy: a sensitivity to the limits and potential of economic growth and their impact on society and on the environment, with a commitment to assess personal and societal levels of consumption out of concern for the environment and for social justice (UNESCO, Nairobi Cluster, January 2006).

ESD therefore integrally features the following areas of concern:

- 1) The pursuit of Education for All (EFA).
- 2) Address such issues as gender equality, environmental protection, rural development, human rights, health care, HIV/AIDS and consumption patterns as these intersect with the sustainable development agenda.
- 3) Fosters the attitudes, values, behaviour, skills, technology and lifestyles required for a sustainable future.
- 4) Process of learning how to make decisions that consider the long-term future of the economy, ecology and equity of all communities.
- 5) Help people of all ages to understand the world in which they live in and the complexity and interrelationship of problems such as poverty, wasteful consumption, environmental degradation, urban decay, population growth, gender inequality, health, conflict, and the violation of human rights that threaten our future.
- 6) Fundamentally about values, with respect at the centre for others, including those of present and future generations, for difference and diversity, for the environment, for the resources of the planet we inhabit.
- 7) Provision of quality education that is relevant to the needs of the immediate society.

The Catholic University of Eastern Africa (CUEA) aims at producing a leading teacher

labour force that is authentic and upright to serve various spheres of life. It also intends to link knowledge with immediate society for relevance in service to provide solutions to the immediate needs of the very immediate society. CUEA main campus is situated in Nairobi at Lang'ata road near Bomas of Kenya. According to CUEA registrar's records the Faculty of Education has 814 students (Registrar CUEA, 2006).

Faculties of Education in Universities globally are responding to ESD. United Nations has even set the period 2005-2014 as the United Nations Decade of Education for Sustainable Development (UNDESD). Education and academic institutions are part of the stakeholders (UNESCO Nairobi, 2006). Bearing in mind the contribution of CUEA's Faculty of Education in education of teachers regionally, then it has to respond to ESD as well. It is on this background of the intense desire to achieve Education for Sustainable Development that has triggered the researcher to investigate whether CUEA's Faculty of Education is conscious of ESD.

1.2. Statement of the Problem

UNESCO (2006) posited that Faculties of Education and teacher training institutions as well as institutions of education at large needed to offer Education for Sustainable Development (ESD). McKeown (2002 p.10) in the Tool Kit for Education for Sustainable Development observed that unlike most education movements the ESD movement was not initiated by educators. In fact one major push for ESD came from international political and economic forums (United Nations, Organization of American States). As the concept of sustainable development was discussed it became apparent that education was the vehicle to sustainability. Educators input have therefore been recognized as indispensable by all.

ESD is hinged on the premise that the current lifestyles are not sustainable and unless the society is educated then the danger of unsustainable future is inevitable. Hence, in order to achieve sustainability through education, there is need to develop an ESD conscious teachers'

generation. UNESCO concurring with Mckeown indicated that Faculties of Education needed to instill skills and knowledge of ESD to teachers (UNESCO, 2006). This is because they train and produce teachers who develop policies in curriculum, ministry of education, education administration, education materials development, scheming or planning the lessons etc. It is therefore imperative that when teachers possess ESD knowledge they will transmit in classroom and society consequently leading to a sustainable society.

The Catholic University of Eastern Africa (CUEA) has a large stake in educating teachers for Africa because almost all countries in Africa have students pursuing studies in the Faculty of Education. Thus the CUEA's Faculty of Education trains teachers for the region. It is therefore the Faculty's responsibility to prepare these teachers well to provide ESD to solve problems in their countries. The student teachers hail from and return to nations laden with ills of lack of sustainable development owing to historical events (e.g. colonial rule and poor post independence leadership). Take for instance Somalia, Congo, Sierra Leone, Southern Sudan, Burundi and the like which suffer from perennial war, poverty, environmental degradation, dictatorship, disease and ignorance. Other challenges are poor economic growth, incompatible and irrelevant 'types of education', wars, corruption, poor infrastructure, bad governance and tribalism. The problems identified are according to UNESCO (2006) not only to the listed countries but a problem of almost all countries in sub-Saharan Africa but to differing scale. The irony is that these countries have enormous resources both natural and human yet its inhabitants continue to suffer. Some of these countries pride of having made great strides in pursuit of education with dozens of universities, tertiary colleges and structured systems of education from elementary to university level yet they have not managed to address needs of their people sustainably. The concern for ESD is provision of quality and relevant education that addresses the needs of the immediate society. It is therefore fundamental that teachers graduating from the university have to be fully conscious of ESD hence the need for Faculties of Education to provide ESD.

A UNESCO Report (2006) reiterated that education was the tool for transformation and the teacher was the instrument of achieving the desirable changes in relation to sustainable education, hence the need to train teachers on ESD. Review of related literature showed that studies have been carried on Environmental Education, Teaching Market Based Courses, Curriculum Implementation and Revision, Factors that Affect Performance in Schools, School Management, Guidance and Counselling etc. Nevertheless, there has been no research carried out particularly in the Catholic University of Eastern Africa (CUEA) to find out if the education provided by the university showed consciousness to ESD. This research therefore aimed at finding out whether the education offered by CUEA's Faculty of Education showed awareness to ESD. The research thus sought to answer the question: is the Faculty of Education at CUEA aware of ESD in its teacher education?

1.3. Research Questions

The following research questions guided the study:

- 1) In what activities does the Faculty of Education (students and lecturers) in CUEA demonstrate knowledge of ESD?
- 2) To what extent does the Faculty of Education (students and lecturers) in CUEA engage in community based activities?
- 3) Is the research carried out by students in the Faculty of Education at CUEA relevant in solving societal education challenges?
- 4) What else is relevant to ESD and is not being offered in the Faculty of Education at CUEA would you like to suggest to be taught to teacher trainees?

1.4. Significance of the Study

The global challenge today is providing quality and relevant education that assures a sustainable future; provision of education that is compatible with the immediate environment. Education that teaches and trains all people to work and act responsibly, conserve the environment, coexist harmoniously with other world citizens, avoid and resolve conflicts

amicably. It is on this premise then that this study was hoped would foster this concern. The findings of this study would undoubtedly promote the awareness that it was essential to provide ESD when training teachers.

The findings of this study were expected to show the role played in skewing education toward ESD. So, the findings of the study, it was hoped, would aid the Faculty of Education in evaluating itself and find out whether it had managed to provide education with a difference.

This study was also expected to help the Faculty recognise its areas of strength and weakness as it endeavoured to provide ESD related education. The findings were expected to help the Faculty of Education (CUEA) in formulation of important policies, principles of knowledge and find solutions to significant problems in relation to education provided as well as strengthen its core values in provision of Education for Sustainable Development.

This study would also provide knowledge to schools, colleges and universities on ESD, show the positive contribution of ESD and enhance the provision of ESD for a sustainable future. This study and its findings would also impart knowledge to the general public on Education for Sustainable Development and the study could propose areas of study relevant to teacher training in line with Education to Sustainable Development.

1.5. Scope and limitation of the Study

The study was limited to current students in undergraduate regular and school focused teacher students and lecturers educating them in CUEA's Faculty of Education. Although alumni members, students in other faculties, lecturers in cognate departments and postgraduate students who were already in teaching and other educational practices possessed valuable information to the study they were not included due to time constraint, limited resources and unreliable track records (for alumni). Nevertheless the researcher assumed the sample possessed relevant and adequate information to the study. The

researcher was also aware that ESD was relevant to all faculties. It was however difficult to study all the faculties with the limited resources and time at the disposal. The study was also only limited to the university's strategic plan in its document analysis. This study took seven months of data collection and analysis starting from March to September, 2007. The findings may not be generalized to all Faculties of Education in all universities and teacher training colleges because the study was carried out in only one Faculty of Education in a private university in the region.

1.6. Conceptual Framework

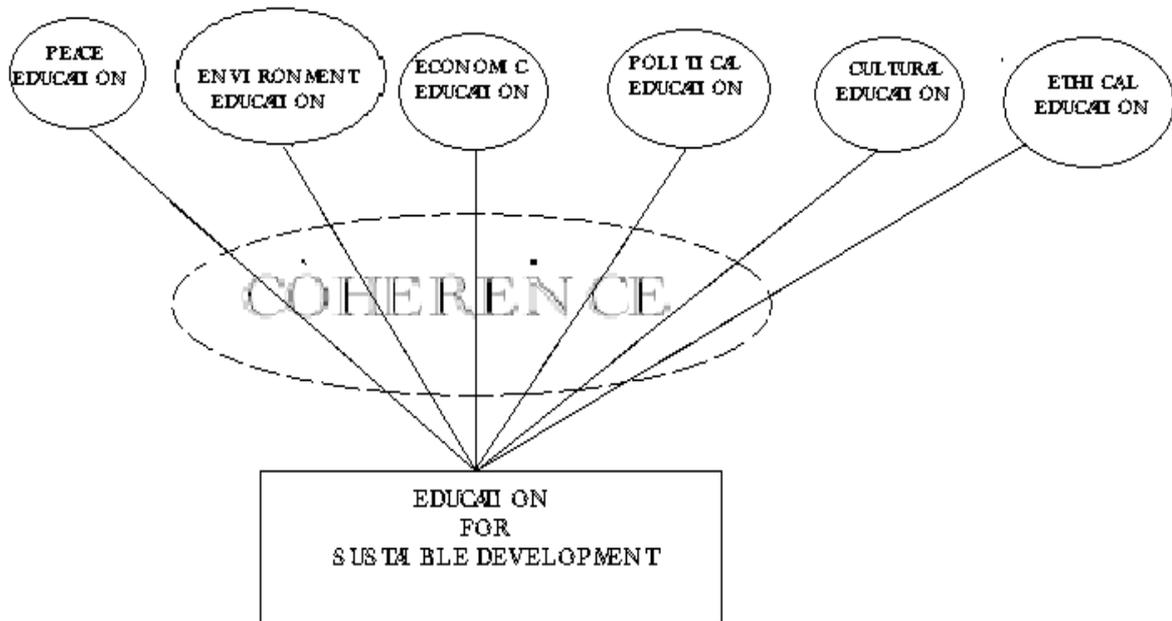
This planet is our home and all of us who share it by living in it and depending on it for life have a responsibility to preserve it. That is what inspired the Earth Charter which emphasizes the following principles:

To preserve humankind in its integrity; unity and diversity must be reconciled; the recognition of others is the foundation of all relationships and all peace; acceptance of the constraints imposed by preservation of the common good is indispensable to the exercise of freedom; Material development must advance human development; and innovation is not an aim in itself; it is a means to serve human development and the safeguarding of the planet (UNESCO, 2006, p.3.).

Therefore there is need for teacher education in the Faculties of Education in universities and teacher training institutions to engage in an all encompassing holistic education that would assure better and more sustainable development. This education would be conscious of fundamental issues that touch the core of human existence like environment, basic education, economic and social education, ethics, social justice, peace education, development education and quality and relevance of education. This study tried to find out if the Faculty of Education (CUEA) did demonstrate awareness about the listed concerns by integrating them in its mission to teach, to research and to serve the community. The subjects of study were

the teaching staff and the students. The key indicators of ESD for this study would be put diagrammatically as follows:

Diagram 1: Diagrammatical presentation of ESD



The conceptual framework diagram was developed by the researcher. It shows different areas of concern to ESD which encompass Education for Sustainable Development at a higher institution of learning especially in a Faculty of Education and how they cohere to ensure that sustainability is enhanced in teacher training.

According to diagram 1, offering Education for Sustainable Development means teaching on peace, environment, economy, politics, culture, ethics and other many areas that would ensure a sustainable society. The selected areas in the diagram are some of the indicators of ESD. The concept behind this framework is guided by the perspective that it is fundamental for teachers to be ESD conscious so as to transmit this knowledge to the society through the classroom. This would consequently lead to a sustainable society.

1.7. Operational Definition of Key Terms

Ubuntu Declaration: the declaration strives to ensure that educators and learners from

primary through higher education are aware of the imperatives of sustainable development. Its aims are to strengthen collaboration with the scientific community, and to successfully integrate the values and principles of sustainable development into their work and way of life.

Ubuntu Alliance: this is a strategic alliance between the world's leading education, science, and technology organizations that are working toward achieving the goals of sustainable development.

Education for Sustainable Development: is education that facilitates development which meets the needs of the present and those of the future. It can be defined as contextually relevant education that ensures sustainable development. Education for Sustainable Development is therefore a process of learning how to make decisions that consider the long-term future of the economy, ecology and equity of all communities.

Relevant Education: this is education that is conscious of the needs of the immediate environment/society/clients. It is inspired by the problem solution approach and is based on research findings and recommendations.

Pedagogy: these are the principles and methods of instruction which is also defined as the activities of educating or instructing; activities that impart knowledge or skill.

Earth Charter: is a global declaration aimed at guiding human practice to conserve and protect biosphere to provide for current world occupants without jeopardizing life chances for future generations.

Quality and Relevant Education: this is education provided by qualified professionals in a conducive learning environment using locally fit pedagogy to address immediate needs of the immediate society.

Stakeholders: the lecturers, students, administrators and all those involved in scholarship engagement in CUEA.

1.8. Organisation of the Study

The study has Six chapters. Chapter One has dealt with introduction whereas Chapter Two has introduction to ESD and Chapter Three contains the review of related Literature. Chapter Four hereby deals with research design and method. Chapter Five has dealt with data presentation, analysis and discussion while Chapter Six gave summary, conclusions and recommendations.

CHAPTER TWO

2. Introduction to Education for Sustainable Development (ESD).

2.0. Introduction

This chapter endeavours to introduce Education for Sustainable Development (ESD). Sustainability Education is relatively a new approach to education whose campaign has been heightened in the last decade. It is however worth noting that many people will find themselves at home with ESD because it touches on pertinent human issues of which some strongly believe in at a personal level. The chapter highlights the components and areas of concern to ESD at a time in the world when human race threatens itself in their competition for material advancement as opposed to human advancement. This topic will therefore introduce the factors surrounding the global move to educate everyone on ESD and the pivotal role of the teacher and teacher training institutions and especially Faculties of Education in Universities.

2.1. Education for Sustainable Development

Education is an essential tool for achieving sustainability. People around the world recognize that current economic development trends are not sustainable and that public awareness, education and training are a must to moving society toward sustainability. ESD is known as Education for Sustainability (EFS) or Sustainable Education (SE) and can be defined as that education that is locally relevant and culturally appropriate in its programmes, addresses local environment conditions and local economic conditions and society ones. As with all works related with sustainable development, the name and content must be locally relevant and culturally appropriate. People invest in education because it serves a purpose. Education for Sustainable Development promises to make the livable for this and future generations. ESD call for giving people knowledge and skills for lifelong learning in order to help them find new solutions to their environmental, economic and social issues (McKeown 2002, p.7).

Sustainability is the conscious living with economic, social and environmental engagement that assures a healthy (non-jeopardised life) for all generations. It is a paradigm that takes

responsibility for the world we live in and our engagement. It is also concerned with the future needs. The first SD definition is by Brundtland Commission 1987 which states, “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987 p.43). SD intertwines three components: Economy, Society and Environment. For example, a healthy prosperous society relies on a healthy environment to provide food and resources, safe drinking water, and clean air for its citizens. The information of how these three areas of ESD i.e. environment, economy and society intertwine has been given in chapter one under the indicators for ESD. An important question should ring in every ones mind: are the casualties in the environmental and social realms inevitable and acceptable consequences of economic development? SD rejects this. SD balances society, environment and economy areas in the pursuit of development and improved quality of life (McKeown, 2002 p.8).

2.2. Sustainability Areas Affected by Education

McKeown (2002) identified the following sustainability areas affected by education. First is implementation in which an educated citizenry is vital to implementing informed decision and enhance sustainable development. In fact, a national sustainability plan can be enhanced or limited by the level of education attained by the nation’s citizens. Secondly, decision making in which educated citizens make good decisions which affect social, economic and environmental well being. Some of the questions we need to ask ourselves are: How do educated citizens contribute to sustainable decision making? What role do educated people play in decision making? Finally, quality of life where education raises the economic status of the families, improves life conditions, lowers infant mortality, and improves the educational attainment of the next generation, thereby improving the next generations’ chances for economic and social well being. Improved education holds both individual and national implications.

2.3. ESD Thrusts

ESD has four major thrusts namely: Improve basic education, Reorient existing education to address SD, Develop public understanding and awareness and Training. The basic education should focus on decision making, be fully developed to meet challenges, quality enhanced and consciously plan what is taught. Reorienting existing education has to be done from nursery through university. It should be appropriate and relevant. It has to integrate economic, environmental and societal components. Reorienting education also requires teaching and learning knowledge, skills, perspectives, and values that will guide and motivate people to pursue sustainable livelihoods, to participate in a democratic society and to live in a sustainable manner.

The need to reorient basic and secondary education to address sustainability has grabbed international attention, but the need at the university level is just as great. Society's future leaders are educated there. If these young people are expected to lead all sectors of society (e.g. government, medicine, agriculture, forestry, law, business, industry, engineering, education, communications, architecture and arts) in a world striving toward sustainability, then the current administration and Faculty members must reorient university curriculum to include the many and complex facets of sustainability (McKeown,2002 pp.14-15). Also to be enhanced are the traditional values that enhance sustainability in ESD curriculum. This therefore means reorienting is to be in all levels.

In public understanding and awareness the first step is to establish clear goals and ensure all stakeholders are aware and have internalized them. Skills to contribute to these goals are then to be developed. ICT and media would be used to disseminate ESD goals as well as teaching the public and students. Lastly, training in ESD has to take place at all levels and in all sectors of education. Bodies concerned have to take initiative. Training distinctively is to a particular job or class of jobs. It informs people of expected practices and procedures and

gives those skills, perspectives and values that guide and motivate people to seek sustainable livelihoods, participate in a democratic society and live in sustainable manner. Appropriate local and global issues should be learnt in ESD.

McKeown (2002) points out that when reorienting the curriculum the following areas are to be looked at keenly: knowledge, skills, perspectives, values and issues.

2.4. Knowledge

Sustainable development revolves around economics, environment and society. Sustainability goals should inevitably be hinged on these three key areas. The topics which have been successfully taught for years and are no longer relevant or serve the needs of the immediate society ought to be discarded.

Education for Sustainable Development aims at identifying a knowledge base that will support sustainability goals; citizens must first select goals. To help in this process, here is a list of statements, conditions, and guidelines for sustainability, which have been identified by prominent authors.

To begin with redirecting the Economy toward Community, the Environment, and a Sustainable Future, three conditions of a sustainable society are given: rates of use of renewable resources do not exceed their rates of regeneration; rates of use of non-renewable resources do not exceed the rate at which sustainable renewable substitutes are developed; and rates of pollution emission do not exceed the assimilative capacity of the environment. Some authors consider peace, equity, and justice necessary for a sustainable society. Meadows (1974) outlined these general guidelines for restructuring world systems toward sustainability: minimize the use of non-renewable resources; prevent erosion of renewable resources; use all resources with maximum efficiency; slow and eventually stop exponential growth of population and physical capital; monitor the condition of resources, the natural

environment, and the welfare of humans; and improve response time for environmental stress.

Agyeman (2001) interprets that “sustainability places great emphasis upon the need to: ensure a better quality of life for all, in a just and equitable manner, whilst living within the limits of supporting ecosystems.” Of course, communities must choose culturally appropriate and locally relevant sustainability goals that reflect their current and future life conditions and needs. With time, major guiding principles selected for the curriculum will become infused into local worldviews.

The aim of ESD is to combat threats to economy, society and environment in order to enhance a sustainable planet. It is inspired by the Earth Summit in Rio de Janeiro’s agenda 21 which states as follows:

Section 1 - Social and Economic Dimensions

International cooperation, Combating poverty, changing consumption patterns, Population and sustainability, Protecting and promoting human health, Sustainable human settlements and Making decisions for sustainable development.

Section 2 - Conservation & Management of Resources

Protecting the atmosphere, Managing land sustainably, Combating deforestation, Combating desertification and drought, Sustainable mountain development, Sustainable agriculture and rural development, Conservation of biological diversity, Management of biotechnology, Protecting and managing the oceans, Protecting and managing fresh water, Safer use of toxic chemicals, managing hazardous wastes, Managing solid waste and sewage and managing radioactive wastes.

Section 3 - Strengthening the Role of Major Women Groups in sustainable development, Children and youth, Indigenous people, Partnerships with NGOs, Local authorities, Workers and trade unions, Business and industry, Scientists and technologists and strengthening the

role of farmers.

Section 4 - Means of Implementation

Financing sustainable development; Technology transfer; Science for sustainable development; Education, awareness and training; creating capacity for sustainable development; organizing for sustainable development, International law; and Information for decision making.

Accompanying the 40 chapters of Agenda 21 were the Rio Declaration and the following conventions and statement of principles: Statement of Forests, Convention on Climate Change, Convention on Biological Diversity and Convention on Desertification (McKeown 2002, p.18).

2.5. Emergent Issues

There are the emergent issues which are not included in Rio di Janeiro's Agenda 21. They include: globalization, militarism, governance, discrimination and nationalism, renewable energy sources, multinational corporations, refugees, nuclear disarmament, human rights and media influencing rapid change of world views. If local issues are included this will foster innovative solutions and develop the political will to resolve them. ESD aims at addressing issues that cause much suffering and threaten the global sustainability.

Nevertheless if what is of concern was to be studied ESD would be overwhelming. Communities should select a few issues in each and of the three realms and of environment, economics and society which are locally relevant. However, topics like women in sustainable development or combating poverty have relevance to every country. ESD has however to move from teaching to action. The following list adopted from Education for Sustainable Development Toolkit by McKeown (2002) demonstrates the types of skills pupils will need as adults: the ability to communicate effectively (both orally and in writing); the ability to think about systems (both natural and social sciences); the ability to think in time -

to forecast, to think ahead, and to plan; the ability to think critically about value issues; the ability to separate number, quantity, quality, and value; the capacity to move from awareness to knowledge to action; the ability to work cooperatively with other people; the capacity to use these processes: knowing, inquiring, acting, judging, imagining, connecting, valuing, and choosing; and the capacity to develop an aesthetic response to the environment.

2.6. The ESD Perspectives

The following is a partial list of perspectives associated with ESD. Students understand that: social and environmental problems change through time and have a history and a future; contemporary global environmental issues are linked and interrelated between and among themselves; humans have universal attributes (e.g., they love their children); looking at their community as well as looking beyond the confines of local and national boundaries is necessary to understand local issues in a global context; considering differing views before reaching a decision or judgment is necessary; economic values, religious values, and societal values compete for importance as people of different interests and backgrounds interact; technology and science alone cannot solve all of our problems; individuals are global citizens in addition to citizens of the local community; individual consumer decisions and other actions affect resource extraction and manufacturing in distant places; and employing the precautionary principle by taking action to avoid the possibility of serious or irreversible environmental or social harm even when scientific knowledge is incomplete or inconclusive is necessary for the long-term well-being of their community and planet. When taught to a generation of pupils, such perspectives will become infused into local worldviews (McKeown, 2002). Such perspectives are really paramount to learners in Africa. This is due to the challenges facing the African countries and the African children who are the prospective target of Education and the future adults who can change the face of Africa to be a more sustainable one. The African youth must be trained and educated by the teacher in the classroom when young so that they can practice these values when they are adults.

2.7. ESD and the Teacher Education

Teachers have to be pre-serviced and in-serviced on ESD. ESD topics are to be formally integrated in the curriculum. Teachers have to identify and recognize components of ESD. Thus, educators and administrators must understand the concept of sustainability. Educators from each discipline can examine the curriculum and school activities existing to contributions to ESD. The next thing, educators can identify potential areas of existing curriculum in which to insert examples that illustrate sustainability or additional knowledge, issues, perspectives, skills or values related to sustainability. There have to be ESD programs to be taught overtly to pupils and students to convey knowledge, issues, skills, perceptions and values associated with ESD.

The schools have a role to create a more just, peaceable and equitable societies. Institutions of teacher education need to integrate ESD to create a generation of ESD conscious teachers. The content, scope and methodology should be adapted within geographic and temporal contexts.

2.8. Multidisciplinarity of ESD

ESD is multidisciplinary. No one discipline can or should claim ownership of ESD. In fact, ESD poses such broad and encompassing challenges that it requires contributions from many disciplines as illustrated in the following disciplinary contributions to ESD:

- 1) Mathematics helps students understand extremely small numbers (e.g., parts per hundred, thousand, or million), which allows them to interpret pollution data.
- 2) Language Arts, especially media literacy, creates knowledgeable consumers who can analyze the messages of corporate advertisers and see beyond "green wash."
- 3) History teaches the concept of global change, while helping students to recognize that change has occurred for centuries.
- 4) Reading develops the ability to distinguish between fact and opinion and helps students become critical readers of political campaign literature.

- 5) Social Studies help students to understand ethnocentrism, racism, and gender inequity as well as to recognize how these are expressed in the surrounding community and nations worldwide.
- 6) Each discipline also has associated pedagogical techniques. The combined pedagogical techniques and strategies of each discipline contribute to an expanded vision of how to teach for creativity, critical thinking, and a desire for life-long learning - all mental habits that support sustainable societies.

The challenges facing any African Faculty of Education on action measures in educating teachers are local educational systems need to modify existing curriculums to reinforce those goals and develop sustainability goals or action plans on which to base educational change. ESD mirrors the concern for education of high quality, demonstrating characteristics: such as interdisciplinary and holistic: learning for sustainable curriculum, not as a separate subject; development embedded in the whole and values-driven: sharing the values and principles underpinning sustainable development.

Conclusion

Sustainability relates to ways of thinking about the world, and forms of social and personal practice that lead to: ethical, empowered and personally fulfilled individuals; communities built on collaborative engagement, tolerance and equity; social systems and institutions that are participatory, transparent and just; and environmental practices that value and sustain biodiversity and life-supporting ecological processes.

In 1998 UN Commission for Sustainable Development, delegation after delegation in the meeting affirmed the importance of education in achieving ESD. It is regrettable though to note that little has been done to take responsibility on ESD. Failure to implement ESD could be attributed to the fact that no one knows where to start or how to start in spite of ESD remaining an urgent need for now in order to achieve sustainable development. Another

reason for little achievements in ESD could be because the origin of the ESD is not from education circles. Probably educators have not conceptualized it properly or even they are just reluctant. However, irrespective of the different reasons for not embracing ESD the time to work is now and all need to forget their differences and put heads together to educate all and sundry on SD.

CHAPTER THREE

3. 0. Review of Related Literature

3.1. Introduction

UNESCO (2006) describes Sustainable Development as development that meets the needs of present generation without compromising or jeopardizing the capacity of future generations to meet theirs. Education constitutes an essential tool for giving impetus to such development. And teacher training institutions have a central role to play in relation to this end. In order to focus on ESD the international community proclaimed the period 2005-2014, the decade on ESD (UNESCO, 2006). ESD is an all encompassing approach to education and it reflects holistic education. This is affirmed further by Kurapka, and Vaitkus, (2006 p.2) who state that ESD is driving force in developing relevant competencies, perspectives and values to motivate people to participate in creating future.

This review of related literature tries to develop a clear understanding of ESD from the light of the university's teacher training contribution or role. The other purpose of this literature review is to establish the gap left out by research carried out or the content in education offered in teacher training at CUEA. The purpose trickling down to a university's Faculty of Education is because the university plays a major role in producing a teaching labour force that guides policy making and implementation in any country. CUEA in its objectives portends that it wants to be a leading player in producing quality labour force to meet the needs of the society. It is however worth noting that CUEA being a Catholic university on the other hand aims at providing holistic education which in broader sense is another way of describing education that if properly based on logical conceptual framework could tackle aspects of ESD.

3.2. Integration of Education for Sustainable Development in University Programs

Most research carried out on Education for Sustainable Development has been carried out by UNESCO. In the baseline survey done on selected Sub-Saharan African countries, as

discussed later in this chapter, showed that universities in this region paid little attention as compared to their counterparts in Europe, United States of America and Asia to ESD (UNESCO, 2006).

The universities in the Scandinavian countries for instance have well coordinated programmes on ESD (Kurapka, E. and Vaitkus, R., 2006). There are cases where specific programmes are offered on Strategic Leadership toward Sustainability. An example is the Blekinge Institute of Technology (BTH, 2006) that offers a Master's of Strategic Leadership towards Sustainability (MSLS) international degree programme. These universities are guided by realization that Education apart from being a human right is a prerequisite for achieving sustainable development and an essential tool for good governance.

The ESD Dimensions are drawn from the disciplines of environmental education, development education, peace education and global citizenship education. Many countries are investigating how to reorient their education systems towards sustainable development. Some have developed national strategies involving formal education and informal and non formal education. UNESCO research on Sub-Saharan Africa highlights these challenges as basic and points out the need to have education geared to solving specific problems facing Africa. This then is the challenge for CUEA and other African Universities.

The United Nations passed a resolution in December 2002 to adopt the Decade of Education for Sustainable Development as endorsed by the Johannesburg World Summit on Sustainable Development (WSSD). The Decade of Education for Sustainable Development (2005 – 2014) was adopted as a Resolution 57/254 at the UN General Assembly 57th Session in 2002.

Education is a primary agent of transformation towards sustainable development, increasing people's capacity to transform their visions for society into reality. Education not only provides scientific and technical skills, it also provides the motivation, justification and social support for pursuing and applying them (UNESCO 2003, p.4). What is important for the

Faculty is to offer some core courses to all students irrespective of their areas of specialization like education in democracy, justice and materially sensitive issues as put in the UNESCO findings on Sub-Saharan Africa (2006).

UN designates UNESCO as the lead agency to promote the DESD and requests that UNESCO develop a draft international implementation scheme in order to: clarify relationship with existing educational processes including Education for all in consultation with the UN, international organisations, governments, NGOs and other stake holders; provide guidance for governments to incorporate concrete measures to promote ESD in national educational plan. The UNESCO report of the Draft for Comment (2006) and the University Role in ESD (UNESCO, 2006) emphasizes that universities be in the front line in developing and promoting ESD. Though Kenya has a strategic plan to achieve ESD there lacks clear and harmonious coordination of universities, colleges, schools and other learning institutions or bodies in pursuing ESD goals. In contrast with Scandinavian universities, European nations and USA where there is clear harmonization of ESD programmes, Kenya and many African countries lack harmonization and inter university coordination (Isoaho, 2003).

3.3. Some of the Challenges Facing ESD

ESD is so comprehensive, including the provision of basic education and a wide range of themes addressed by the World Summit on Sustainable Development (WSSD) including water, energy, health, agriculture and biodiversity (WEHAB). This leads to a lack of clarity in communicating what is meant by sustainable development education. There is an ambition to educate everyone to bring about a global citizenship. Social, organisational or institutional factors constrain change to sustainable development, yet there is an emphasis on formal education. The highlighted constraints according to UNESCO research on ESD are the very challenges of Sub-Saharan universities and CUEA lies there. There is a lack of balance in addressing the social and economic dimensions of the field leading to an interpretation that

ESD is mainly about environment and conservation issues. New learning and knowledge management approaches are called for to promote more debate in society. This should lead for instance to coming up with home made pedagogy. This research helped to find out if CUEA'S Faculty of Education offers teacher training in line with ESD objectives and if the Faculty has capitalized on research to develop pedagogies and methodologies that are more relevant to immediate society.

UNESCO's report on Sub Saharan Africa identifies this as the greatest deficiency area of some African universities. There is little deliberate attempt to address changes in curriculum and developing of teaching and learning materials that are relevant to the immediate society. This conclusion is driven by the fact that largely Sub-Saharan African countries use learning materials and pedagogies adopted and adapted from Europe, America and other countries. However, it is agreeable as McKeown (2002) puts it that some areas are of global concern like gender equality and eradication of poverty. These are areas of concern when developing curriculums to all people irrespective of setting in the globe; teachers have to inspire, instill skills and knowledge geared towards addressing these challenges.

3.4. The ESD Innovations Course: A Module for African Universities

The United Nations Environmental Programme (UNEP) has developed a module for African universities. The module starts with a review of environmental and sustainability issues and the risks in an African context, with specific reference to the Johannesburg implementation plan, and New Partnership for African Development (NEPAD) environmental action plan, the African environmental outlook reported and recent findings of the millennium ecosystem assessment. The module aims at fitting in an African context based on development policies and strategies, pointing out the relevance to, and challenges for, African Universities in line with international discourse of universities' role in ESD. It has been designed to allow for local adaptations, and opportunities for ongoing review and adaptation of the programme have been 'built into' the course design. Other educational strategies for enabling sustainable

development such as the use and application of indigenous knowledge, and effective assessment also form part of this module. The challenge of African Universities is to develop contents that are localized. Most books used in CUEA and many African universities are written by Americans and Europeans. Though the university has publications department it still has not reached that level where it can showcase dozens of books written by its dons. There are however a handful of books written by CUEA lecturers on education practice especially in research, evaluation and monitoring and teaching practice and in public universities, lecturers have endeavoured to write books and the leading example in Kenya being University of Nairobi.

This is a concern based on UN Decade of Education for Sustainable Development (UNDESD). Globally Universities are responding to ESD. There are universities in developed countries which are offering specialized courses on Education for Sustainable Development. The module recognizes the triple mission of universities: teaching, research and community engagement. The module looks at associated changes for professional ethics, innovations, curriculum, methodologies for research, use of research results. There is also the concern on utilization of ICT as a new way in research, and service programmes i.e. use of ICT for SD.

The module aims at ensuring that at the end of the teacher training course learners (or teacher's education) can conceptualise the need for sustainable development in broader national and international development contexts.; understand universities' education training role in addressing sustainable development and change; critically engage with sustainable development concepts, theories, policies and issues in an African context, and their relevance to university work; can identify and deliberate principles and values that guide sustainable development, drawing on own and African experience as well as internationally-developed frameworks; and understand the history of ESD in global, regional and national policy contexts in order to justify, motivate for and strengthen innovations in the university context.

This will be evident when the participant demonstrates and explains how values and principles are associated with sustainable development; influences teaching, research, services and professional ethics in different disciplines as well as in multi-disciplinary, inter-disciplinary and trans-disciplinary contexts; critically reviews and reflexively applies different approaches to teaching, learning and research in different contexts and in different disciplines; considers and designs different forms of assessment that are appropriate to the challenges of ESD; reflects on the use of ICT and other innovations in communication to strengthen ESD; and develops strategies and skills to monitor, evaluate and share adaptive practices in the fields of teaching, research and services.

This module crucially considers the opportunities and constraints associated with institutional capacity development to address environmental and sustainable development issues. It examines opportunities and constraints associated with institutional capacity building within a framework that considers the history and existing status quo of the institution, which are shaped by both internal and external factors. The module provides practical suggestions on how different structures and processes within universities can be mobilised to take account of and address environment and sustainable development issues. These include discussions on how policy-making processes can be mobilised, how management committees and structures can be used, and what contributions could be made to strategic planning frameworks. The module considers working proactively with student structures. It further considers the role of campus managers in developing more sustainable campus management strategies which can also be used in teaching

Features of the ESD Innovations Course

Grounded in the broader objectives of the Mainstreaming Environment and Sustainability into African Universities (MESA Universities) partnership objectives and context, the ESD innovations course has the following key features: Recognising and Enabling Agency; Reorientation within Interconnected Systems; Ethically Informed; Building on Existing

Experience and Practice; Mainstreaming Innovative Changing Practices in Context; Establishing a Multi-Disciplinary Dialogue; Internationally Linked; and Learning as a Reflexive Process of Change. It is on the basis of these features that CUEA as a university in Africa is expected to orient its strategy for ESD. It is worth finding out whether the Faculty of Education is conscious of the ESD module for African universities and if there is any action taken towards responding to the needs of this strategy.

UNESCO (2006) stated that, “Education empowers people to play their role in society effectively in promotion of the global community. It improves people’s lives.” The universities teacher training has vital roles to play in relation to enhancing quality Education for Sustainable Development. The graduate teacher has a role in improving people’s lives. Universities form a link between knowledge generation and transfer of knowledge to society in bid to better lives. The CUEA strategic plan (2005) seemed to address the area of producing an all round teaching labour force. The community engagement was also satisfactorily tackled. Nevertheless there was room for further engagement by attaching students to community activities where they would break new grounds out of conventional situations where students on teaching practice, attachment and internship engage in projects aiming at achieving certain sustainability education strategies. The challenges of Africa are basically in tackling the informal businesses and developing new frontiers in education and societal problems tackling methods that are relevant to the local communities.

As discussed above CUEA’s Faculty of Education had substantially created room for its students and lecturers to be involved in community welfare. There was however no research carried out to find out whether this is a result of the Faculty of Education consciousness of ESD or not. Faculties of Education play vital role in acquiring, processing, disseminating and applying knowledge by engaging in research and learning. The faculties have to undertake innovative, action oriented research. They should be particularly attuned to the provision of appropriate knowledge and skills relevant for sustainable development to the local

community as local knowledge centres (UNESCO, 2006). It is universities role to retrain teachers and other professionals on sustainable development. This is because universities have to lead by examples by utilizing resources, offering services and such sustainable predispositions. This means they have to engage in innovations, reflection on values and transformation towards a more sustainable society. Provision of knowledge and unhindered access of it is a prerequisite for sustainable development. Important is orientation towards innovation and learning, creativity and the willingness to take risks.

In considering the roles and functions of the university in promoting sustainable development, the following issues should be particularly addressed: increasing the relevance of teaching and research for the societal processes leading to more sustainable and discouraging unsustainable patterns of life, improving the quality and efficiency of teaching and research and bridging the gap between science and education, and traditional knowledge and education strengthening interactions with actors outside the university, in particular with local communities and businesses, introducing decentralized and flexible management concepts (UNESCO, 2006). Societal problems are almost always complex problems that ask for multidisciplinary approaches. The challenge for higher education teacher training is to create rich learning environments that prepare teachers to prepare learners for their roles in society. Therefore these research findings carried out on CUEA's Faculty of Education consciousness of ESD are hoped to help CUEA and other universities to be faithful to the mission of education that is multifaceted in its approach to addressing divergent societal challenges.

3.5. Faculties of Education and the UN Decade of Education for Sustainable Development

Knowledge is a key factor for sustainable development. Yet without the appropriate context and applications, knowledge cannot successfully catalyze sustainable development. Therefore preparing the teacher for SD should be considered as an enabling infrastructure for all sectors of the economy, for democracy and for good governance. The challenge for higher education

in the context of the DESD is to innovate traditional learning environments and learning processes in such a way that they not only support the learning process of children and young adults in formal education, but life long learning, training and informal learning as well. Higher education institutes are challenged to co-operate together in networks that constitute a supportive infrastructure for life long learners. Co-operation between universities is not enough, however. In order to fulfill their outreach/service function at regional, national and international levels as well, universities and higher educational institutes will have to be active nodes in international/national/regional networks with other partners such as primary and secondary schools, vocational education, science centres, small and medium sized companies, chambers of commerce, NGOs, national and regional governments, etc.

Emphasis should be put on co-operation, teacher training and sharing of knowledge at a global scale. One example of the co-operation, as well as innovative uses of ICT, is the Global Higher Education for Sustainability Partnership (GHESP) Resource Project that could be described as a portal to qualified good practices along the lines of higher education's contribution to sustainable development (curricula, logistics and managerial practices and outreach/service to society) and the formation of a global network of Regional Centres of Excellence (RCEs) for Learning for Sustainable Development. Such regional centres should organise their activities locally and aim at enhancing collaboration between different levels of formal education, i.e. between primary, secondary and higher education and at facilitating relations between formal education and local actors relevant for ESD, such as research centres, local businesses, museums, local governments, etc. (UNESCO, 2006).

The challenges for faculties of education in the context of the Decade are thus enormous, but the opportunities as well. New media and ICT offer many possibilities to enhance human activities in the field of education by providing flexible access to educational resources, assisting in information management and facilitating active discussions. CUEA's Faculty of Education's utilization of ICT and new media needed to be looked at closely in line with ESD

objectives.

3.6. UNESCO's Role in Teacher Training in ESD

UNESCO has built partnerships with governments, civil society groups, and other UN and international agencies to meet important education and literacy targets. GHESP is such a partnership focusing on the specific role of higher education in the context of the Decade of Education for Sustainable Development. UNESCO has a dual role in relation to Education for Sustainable Development (ESD) and Teacher Training: first, as a substantive implementer of ESD-accelerating reforms and coordinating activities of multiple stakeholders to implement ESD at international, regional and country levels; and second, UNESCO also acts as the lead agency in the promotion of DESD (2005-2014). The Decade offers an opportunity for UNESCO and its partners to advance progress made in human resource development, education and training of teachers to promote a more sustainable development of the global society.

The International Work Programme on Education, Public Awareness and Training by the Commission on Sustainable Development was carried out by UNESCO for chapter 36 of Agenda 21. This work programme has emphasized that, institutions of higher education need to promote an interdisciplinary perspective conducive to addressing sustainable development issues in both teaching and research. This topic was taken up at a special session held during the UNESCO World Conference on Higher Education (Paris, 1998), in collaboration with the United Nations University (UNU), the International Association of Universities (IAU) and CRE-COPERNICUS. UNESCO is a partner in the GHESP, whose major goals are to develop a global online Resource Project and, in collaboration with United Nations University (UNU), promote regional centres of excellence (RCE). In this capacity, UNESCO will promote integration of ESD into teacher training activities and integration of ESD at the local level in multiple localities. UNESCO is also a member of the Ubuntu Alliance, which is a strategic alliance between the world's leading education, science, and technology

organizations that are working toward achieving the goals of sustainable development (UNESCO, 2006). One major responsibility in the region seems to be to bring universities' faculties of education at round table to discuss the challenges facing universities in establishing strategies for ESD.

International Commitments

Consciousness of ESD in a Faculty of Education is in some way shown by offering courses like environmental education, Ethical education and engagement in community service. The objectives of CUEA revolve around holistic education (CUEA Strategic Plan, 2005). The world at large does recognize that Universities and higher education institutes can contribute to sustainable development in several ways: first, by giving sustainable development a place in all university curricula and educational and research programs; by generation and dissemination of knowledge, the university's core competences, they provide literacy on sustainable development to all professionals. Their graduates should be responsible citizens capable of responding to the challenges of sustainable development.

Universities can also play a role in reorienting educational programmes at primary, secondary and vocational education to be hinged on ESD. CUEA's involvement in shaping education at primary and secondary level need to be researched on with an aim to establishing modalities for CUEA taking a center role in reorienting education practice in its area of influence. Teacher re-training might be an important role that universities can play; by playing an important role as local knowledge centres for sustainable development in order to help society meet the challenge of sustainable development at the local level; and by making sustainable development a leading principle in their own logistics and managerial processes.

During the Johannesburg Summit, eleven foremost educational and scientific organisations signed the Ubuntu Declaration. The Declaration strives to ensure that educators and learners from primary through higher education are aware of the imperatives of sustainable

development. Its aims are to strengthen collaboration with the scientific community, and to successfully integrate the values and principles of sustainable development into their work and way of life.

One demonstration of the international commitments is the Earth Charter. The Earth Charter is now undoubtedly one of the most powerful instruments for promoting the changes in our ways of life which must take place irrespective of any differences that may exist between us and which are driven principally by the imperative need to conserve life on earth. The principles emphasized by the Charter are of the utmost importance: to preserve humankind in its integrity, unity and diversity must be reconciled; the recognition of others is the foundation of all relationships and all peace; acceptance of the constraints imposed by preservation of the common good is indispensable to the exercise of freedom; material development must advance human development; innovation is not an aim in itself, it is a means to serve human development and the safeguarding of the planet. Clearly then, planetary unity is the minimum national requirement of an ever more circumscribed and interdependent world. The Earth Charter is largely the inspirer to UNESCO, GHESP and MESA Universities in insisting on importance of ESD. This study also desired to find out if CUEA honours the recommendations of the Earth Charter by offering courses that show relevance to ESD.

3.7. Ethical Principles

This stands out as the highest score for CUEA in light of ESD. Analysis of the curriculum offered at CUEA indicated that there are compulsory courses on Ethical Issues offered in CUEA to all students both in undergraduate and graduate level. This was credited to the university's religious ethos on spiritual and moral formation for students. Reflections on ethical aspects and dimensions of sustainable development are too often discounted. Yet for a concept such as sustainable development, with its concern with the relations between present and future generations, consideration of the 'ethics of the future' would appear critical. This

would seem to be particularly so during a period when advances in biotechnology have triggered widespread public and political attention, when the processes of globalization have contributed to a whole new set of ethical challenges and dilemmas. Within such a context, one of UNESCO's major strategic thrusts calls for the promotion of principles, policies and ethical norms to guide scientific and technological development that is sustainable. This is part of a continuing process initiated by the 1987 call of the World Commission on Environment and Development (Brundtland Commission) for a new code of ethics for sustainable development, and the unfinished process of the 1992 Rio de Janeiro Earth Summit, which attempted to set an ethical framework for sustainability.

3.8. Strategy of ESD Development in Sub-Saharan Africa

ESD is the momentous to achieving the Millennium Development Goals (MDGs) as it is all encompassing (holistic dimension). ESD can therefore be easily adopted by CUEA since according to its objectives in the strategic plan (2006) it pays lots of emphasis on the need to offer holistic education. It is an important link in the poverty reduction and health and environment protection chain. ESD is paramount to the region as New Partnership for Africa's Development (NEPAD) aims at eradicating poverty and promoting sustainable development for human development. It is the engine/vehicle for implementing education as per NEPAD's plan.

UNESCO has carried out studies in nine countries in relation to ESD needs. The regional ESD strategy for sub-Saharan Africa is the result of a synopsis of relevant documentation on the three sub regions covered by the study (West Africa, Central Africa and Southern Africa, East Africa and the Indian Ocean). The use of this documentation has made it possible to prepare some status reports on ESD in sub-Saharan Africa, highlighting the strengths and weaknesses but also the opportunities and risks to be taken into account in the process of designing a strategy for the promotion of ESD in the different countries. And it is also a result of surveys conducted in nine (9) countries deemed representative of their sub-regions

among which two i.e. Zambia and Malawi are part of member countries that form AMECEA the owner of CUEA: Cameroon and Chad (Central Africa), Guinea, Senegal, Burkina Faso and Nigeria (West Africa), Malawi and Zambia (Southern Africa), Mauritius (Indian Ocean). These interviews were conducted with institutions, organizations and resource persons identified within the framework of desk research. They made it possible in the same vein, to sensitize national actors and prepare them for an active involvement in the validation of the strategic framework and its implementation (Draft for Comment, pp.8-9). ESD in sub Saharan Africa covers Economy, Politics and Environment areas and the challenge for faculties of education was to hinge their curriculum of training teachers on the three key areas.

Problems and Challenges of ESD in Sub-Saharan Africa

The issue of ESD in sub-Saharan Africa refers to an issue relating to the nature of on-going development in the region and highlights the numerous challenges posed. These challenges are linked to socioeconomic, environmental vulnerability (epidemics, illiteracy, famine, drought and floods, conflicts, etc.) and cultural vulnerability (disappearance of local languages, traditions...). In the face of the structural crisis resulting from endogenous factors, the African youth, the principal target of this education, is rushing in a headlong flight to other horizons. The needs of the present generations in Africa are indeed, far from being met and there is the fear that a good number of policies and actions aimed at meeting these needs are not sustainable (Draft for Comment, p.9). The Faculty of Education in CUEA like in many other regional universities' teacher education and training schools has a role to address these challenges.

Among the ecological challenges facing Africa can be mentioned in the first place, desertification, the overexploitation of forest resources, the deterioration of marine and coastal ecosystems and rapid and unprepared urbanization, a source of growing precariousness in the outlying districts and countryside and increasing pollution. All these

challenges are aggravated by manmade activities and it is mainly the poverty and impoverishment of African populations which are both the causes and effects of environmental degradation.

From the economic point of view, poverty is widespread. About three quarters of Sub-Saharan Africa survive with less than two dollars a day while the economic growth of the 90s rose to only 2.1% on average per year. This is quite far from the objective of 7% annual growth rate required by Africa to reduce by half, in 2015, the number of persons in poverty. The UNESCO survey (2006) found out that out of 49 Least Developed Countries (LDCs), 34 are African countries. The external debt of sub-Saharan Africa countries amounted to 206 billion US dollars in 2000 and for some countries, the debt to export ratio was 180.2%, while that of debt to GDP was 66.1%.

In the field of health, Africa is affected by some major endemic diseases such as malaria, tuberculosis and the HIV-AIDS pandemic. The 19 countries of the world with the lowest human development index are all in sub-Saharan Africa. The illiteracy rate of individuals aged 15 plus is 41% with very high interregional disparities, large gaps between the sexes and between rural and urban areas. The key concern therefore for a Faculty of Education, in a regional university like CUEA, needs to pay more attention to these endemic challenges. The courses offered as well as research carried out ought to be problem oriented. Though CUEA's Education Faculty pays lots of emphasis on research, and despite there being department of research there is no problem-solving approach in research carried out in CUEA. The university research department seemed more concerned with research methodologies and teaching how to carry out research without paying attention to what the research carried out in CUEA could address.

The political challenges to be met by Sub-Saharan Africa are not any less. The democratization of political life is making appreciable strides in Africa with the democratic

transition being a slow and complex process in which each country has a special profile due to its history. However, the democratization processes have often been accompanied by some painful transitions and readjustments which have thrown some countries into a state of socio-political turmoil or open conflict based on institutional and constitutional restructuring of political leadership, power sharing, wealth and knowledge in the society. The participation in democratic life is still a remote prospect for many populations and groups, particularly women. The tearing apart of countries in a situation of war affects neighbouring countries in many ways (number of refugees amounting to 8 million, arms trafficking, proliferation of landmines, accelerated destruction of the environment, disorganization of economies, etc.). Some conflicts that develop at the regional level have an impact and ramifications that go far beyond their causes and consequences of origin.

From the standpoint of all these problems, one of the political challenges of Africa is its capacity to redefine the paradigms of its development that enable it to avert marginalisation and enlarge its own margin or scope of autonomy. The perspective is undoubtedly that of a more endogenous development within a dynamic of genuine African integration but also globalization (The Draft, p.10-11). As mentioned earlier education is a vehicle of transformation. That is the educators have to be trained deliberately and specifically on issues of sustainability. The teacher has a key role through pre primary to tertiary level to develop curriculum, teach and monitor knowledge implementation on Sustainability in all aspects of learner's and society life.

Holistic Approach in Educational Activities

The draft for comment to guide ESD in Sub Saharan Africa suggests that all activities involved be developed holistically. This means using a concept of education that jointly takes into account its role in the acquisition and transmission of knowledge, in individual development, socialization and economic development. In this regard, education activities include concrete action towards: Poverty reduction; Peace and social and political stability;

Gender equality and equity; Health promotion; Environment sustainability; Culture in relation to skills, behaviours and values to be promoted; and the enforcement of the principles of good governance and transparent management. Inter-disciplinary and integrating approaches are to be used so that the specific nature of contexts and the multiple role of education are assured in all programmes, projects and activities (UNESCO Draft for Comment, p.13). Teachers need not only have theoretical knowledge but also integrate SD principles in individual and collective behaviors. This means contextual utilization of the knowledge by taking activities which include Public sensitization through campaigns and debates to involve citizenry (UNESCO/BREDA, 2006).

A baseline survey carried out in Kenya in October 2005 by UNESCO found out that a gap exists to realize ESD. In Kenya, the National Environmental Management Authority (NEMA) has been instrumental in coordinating the ESD process and as a result it has been given the core function of promoting sustainable development in Kenya. So, from the onset curriculum developers at KIE, teachers' bodies, Faculties of Education and teacher colleges are not spearheading the ESD. The teachers are therefore likely to dismiss the ESD initiatives by NEMA as domination from outside quota. This therefore calls from the word go for the relevant education bodies to reclaim their place in planning, coordinating and guiding ESD from the front. The driving force for Kenya is to find out how ESD values can be fully integrated into all aspects of learning in order to encourage changes in behaviour that allow for a more sustainable, economically viable society for all etc.; a world where everyone has the opportunity to benefit from education and learn the values, behaviours and lifestyles required for a sustainable future and for positive societal transformation.

3.9. Appraisal of the Literature Review

Education as put by an eminent thinker Edgar Morin in the "Seven Complex Lessons in education for the future" (UNESCO, 1999) has to demonstrate the awareness and a genuine sense of ownership which binds us when he states "to the earth, our first and last home". If

the concept of home includes the idea of commonality, a relationship of affective affiliation and a shared destiny, then we can accept the earth as our home (UNESCO, 2006). Human beings despite their differences share common planetary destiny in life and death in the same planet that they have to conserve for current and future generations. It is therefore human beings responsibility to learn to be part of the planet; to learn to be, is not only to be part of a culture, but also to be inhabitants of this planet. And everyone agrees education is the main means of bringing about change and affirming values, attitudes and behaviours and the teacher the instrument/conduit to achieving the desirable change.

Education plays an important role in contributing to sustainable development. This is achieved through ESD, training and public awareness. The teacher remains the undoubted personification of the society to instill this knowledge through basic level to tertiary levels. ESD ensures the following objectives are achieved: equitable, efficient and sustainable utilization of national resources; improved quality of life and productive livelihoods. ESD education does consider respect and care for the 'community of life; social and economic justice; ecological integrity; democracy, non-violence and peace. It engages in the following perspectives: life long learning: does the education and training system encourage learning through the life span – empowering to make decisions and acting in culturally appropriate and locally relevant ways to address problems that threaten the common future? Education has been acknowledged in the role it can play in harmonization of knowledge; from cementing societies that are politically, socially and economically unsustainable to sustainable ones (UNESCO, 2006). On the area of lifelong learning and multidiscipline approach CUEA is concerned as it's spelt out in its objectives in the strategic plan (CUEA Strategic Plan, 2005).

The Faculty of Education's core business is teaching, research and community engagement/service. In this mission the university has to integrate ESD with the absolute goal of a better and more sustainable future. The following areas are the foundation of ESD:

Environment Education, Peace education, Development education, global citizenship education, basic education, social education, economic education (UNESCO, 2006).

Conclusion

As seen in the discussion above the ESD is concerned with providing holistic education that encompasses all aspects of human life to the teacher and the society at large. Life sustainability is central to ESD for the current and future generations. It aims at raising awareness and consciousness among the peoples of the world to avoid life threatening activities and encouraging embarking on life sustaining ones. This is the awakening call for all to heed UNESCO. As key players in provision of education and policy development Faculties of Education have a fundamental stake in provision and promotion of ESD. CUEA as seen in the introduction is a key player in university education in Sub-Saharan Africa as it trains teachers as well as other careerists for many countries in the region. As shown by UNESCO survey in this region, there are grave challenges that education has to address if the education offered has to remain relevant. Reviewed literature in this chapter showed that no research has been carried out so far on CUEA's Faculty of Education in relation to ESD. This therefore establishes a dire need to fill this vacuum by finding out if CUEA's Faculty of Education is aware of ESD.

CHAPTER FOUR

4. Research Design and Methodology

4.1. Introduction

This chapter has research approach, designs, sample and sampling procedures, research instruments, administration of research instruments/data collection and analysis procedures. In this study both qualitative and quantitative paradigms were employed in order to complement each other. Qualitative research typically entails in-depth analysis of relatively few subjects for which a rich set of data is collected and organized. Quantitative research entails the proper application of statistics to typically a large number of subjects.

4.2. Research Design

The study used a combination of descriptive survey and naturalistic method to find the state of affairs. Kerlinger (1969) states that descriptive survey besides finding facts may also result in the formulation of important principles of knowledge and solution to significant problems. Using the survey design the researcher was able to establish the characteristics of education offered to teacher students in CUEA. According to Kane (1997, p.77 and 123) descriptive survey's aim is simply to present a picture and is either in the form of questionnaires or interviews. Using naturalistic design the researcher was able to have an in-depth interview in a natural setting with the lecturers. The researcher had developed an interview guide that was used to collect in-depth information from the lecturers teaching undergraduate students in the Faculty of Education, CUEA. The researcher employed structured interview guide to enhance credibility alongside unstructured and semi-structured interview to enhance comprehensive data collection. The Survey and naturalistic designs were useful in getting responses to the same questions from a number of students and lecturers on Education for Sustainable Development. These designs ensured collection of wide range of data ranging from opinions/views, habits and attitudes. Due to the nature of self evaluation (especially through filled-up questionnaire) it was possible to reach a greater

number of student respondents, thus the sample being more reliable as the sample size included more representatives from the target population.

4.3. Research Site/Location of Study

According to Sessional Paper No 1. (MOE, 2005 pp.9-10), Kenya had 6 public universities and 13 recognised private universities by the year 2005. Masinde Muliro University is the seventh public university established in 2007. The Catholic University of Eastern Africa is one of the 13 private universities in Kenya. It has for over a decade released to the job market thousands of professionals. This research was carried out in the Catholic University of Eastern Africa's Faculty of Education which had 814 students pursuing Bachelor of Education degree according to 2006/2007 admission records. The Faculty portends to offer holistic education in all its programmes: Undergraduate, Postgraduate Diploma in Education, Master of Education and Ph.D. There are many reasons for choosing student teachers for this study. First, teachers are the pivot of educating students on sustainability. Secondly, the teacher must educate in a way that schools create a more just, safer, peaceable and equitable societies. In addition Institutions of teacher training/education need to integrate ESD to create a generation of ESD conscious teachers (McKeown, 2002). Moreover, the Catholic University of Eastern Africa is a regional university whose contribution is to a larger population as it had representatives from almost all countries in Africa and few students from other continents. It is therefore clear that teachers must play a significant role if schools have to achieve sustainability in social, economical and environmental realms. Thus this study hoped to raise awareness about ESD and help CUEA's Faculty of Education to develop more and more relevant programmes to address issues of sustainability.

4.4. Target Population

The research concentrated on students in the undergraduate programmes in the Faculty of Education: that is the ones taking the school focused and fulltime/regular program and the lecturers teaching the undergraduate students in the Faculty of Education. The decision of

taking this population to be sampled was based on the realization that teachers were the people who instill knowledge to students and develop the policies of education including the curriculum. The Faculty's awareness about ESD is hence of great importance in promoting Education for Sustainable Development. The choice of lecturers in the Faculty of Education and not the administrators was because lecturers engage in actual teaching and training of students and interact on day to day basis with students in the lecture halls and were aware of what they actually taught. The lecturers readily provided information of the type of education they give in training of teachers in CUEA.

4.5. Description of the sample and sampling procedures

The Study targeted the 814 students in the Regular and School Focused programmes offered in the Faculty of Education in CUEA and the 13 lecturers teaching the undergraduate students. The students' population was not homogenous. Therefore, the researcher used stratified random sampling which is one method of Probability Sampling (Kombo and Tromp, 2006pp.78-80) to divide the students population into homogeneous subgroups and then took simple random sample in each subgroup. Stratification controls the distribution of the sample size in the strata. It is widely used in practice towards meeting a variety of survey objectives. For example, with stratification researchers can ensure adequate sample sizes for subgroups of interest, including small subgroups, or can use stratification towards improving the precision of the overall estimates.

There were two groupings in the undergraduate programmes offered in the Faculty namely B/Ed Fulltime and B/Ed School Focused; simple random sampling was then used taking 10% to ensure that the sample was representative in proportion to their number in population. This is because for descriptive studies 10% of the population is adequate for sampling (Gay, 1996). Simple random sampling ensured that each individual student had an equal chance of being selected and therefore avoided biases. In using simple random to sample the researcher wrote the names of the students in each stratum in pieces of paper, then sampled students

were chosen by picking one paper at a time without replacement, mix the papers, pick another and the process was repeated until the required number in each stratum was selected. As the target population of the lecturers was made up of 13 lecturers only 100% of the target population was taken.

The students sample filled up the questionnaire whereas lecturers were interviewed using structured and semi structured interview questionnaire guide. The researcher therefore distributed questionnaires to 81 students and intended to interview 13 staff lecturers. Nevertheless, only 67 students returned their filled up questionnaire. 2 lecturers were not available for interview, thus only 11 lecturers were interviewed.

Table 1 students' population

Programme	Population
Bachelor of Education Regular	474
Bachelor of Education School Focused	340
Faculty of Education Total No of Students	814

Source: Registrar CUEA

Table 2 Students' sample

Programme	Sampled Population
Bachelor of Education Regular	47
Bachelor of Education School Focused	34
Sample Total	81

4.6.0. Description of the Instruments

In order to collect data of awareness about ESD the following two instruments were developed and administered to the sampled respondents:

- Questionnaire
- Interview schedule

4.6.1. Questionnaires

There were questionnaires for students to fill up. The questions had an explanation of ESD section. This section was meant to help the student respondent to understand ESD and the light of the study. The questionnaires were mainly meant for the respondents to self report with little intrusion by the researcher. Open ended (blank spaces provided) and closed ended (forced choice-answer choices provided) questionnaires were used in this study where the respondents filled up themselves. Section A of the questionnaire had items seeking information about the knowledge of Education for Sustainable Development, section B community service activities, section C the role of research in solving contextual problems and section D suggestions on how to address the ESD themes.

4.6.2. Interview Guide

The researcher developed an interview guide that was used to collect in-depth information from the lecturers educating teachers in the Faculty of Education CUEA. The researcher employed structured interview guide to enhance credibility alongside unstructured and semi-structured interview to enhance comprehensive data collection. The interview was a vital tool in gaining insights in the teacher training at CUEA from the lecturers. The interview was also a rich tool of gathering information that complemented the questionnaires that the teacher students filled up. It was also easy to clarify (through probing) points not clearly conceptualized from the sampled lecturers. The interview guide had a section explaining ESD and the light of the study. The interview guide had items that sought information on knowledge of ESD, engagement in community service, relevance of research carried out at CUEA by students to ESD and suggestion of relevant courses to ESD.

4.7. Validity and Reliability of Research Instruments

Kombo and Tromp (2006, p.97) define validity of a test as a measure of how well a test measures what it is supposed to measure and reliability as a measure of how consistent the results from a test are. If you administer a test to a subject twice do you get the same score

on the second administration as you did on the first? According to Orodho (2004, p.41) reliability of measurement concerns the degree to which a particular measuring procedure gives similar results over a number of repeated trials.

A test retest or coefficient of stability method was used to estimate the degree to which the same results could be obtained with a repeated measure of accuracy of the same concept in order to determine the reliability of the instrument. The responses to the two tests were very similar. The closeness of the scores obtained in both cases would indicate reliability and if not, then the instruments are of low reliability (Orodho 2004, p.41). The researcher pilot tested the questionnaires for the students at Don Bosco Utume. The Pearson's Product moment formula for the test retest was employed to compute the correlation coefficient in order to establish the extent to which the contents of the questionnaire are consistent in eliciting the same responses every time the instruments were administered. The questionnaires were accepted at a correlation coefficient of 0.86. A correlation coefficient of about 0.8 should be considered strong enough to judge the instrument as reliable for the study (Orodho 2006, p.41).

To test whether the questionnaire content is measuring what they are supposed to measure for the purpose of this study three lecturers who are experts in education research were requested to assess the content used in the questionnaire developed and after examining the instruments validity they gave feedback which was adhered to in coming up with the final instruments. Two colleagues were also asked to assess the relevance and validity of instruments.

4.8. Administration of Tools and Data Collection

The researcher sought permission to research from the Ministry of Education and the Catholic University of Eastern Africa. Copies of the written authorization to research were presented to relevant authority in the process of research. The researcher distributed the questionnaire to students with the help of four research assistants to sampled student

respondents. After completion of filling up the questionnaire the researcher collected the filled up questionnaire. The researcher conducted interviews with the lecturers in person. The researcher booked appointments with the targeted lecturers. Each interview took approximately 30-60 minutes. By the researcher conducting the interview with the lecturers himself he got a chance to explain the purpose of the study and assure the respondents of confidentiality on personal information given. The researcher was also able to probe and elicit more relevant data during the interview. The data collection took one month.

4.9. Description of Data Analysis Procedures

Statistical procedures were used to analyse the quantitative data. The instruments were categorised into homogeneous groups, quantitative data coded and information summarised into frequencies and percentages using SPSS and MS Word.

Qualitative information was sort and organized into homogeneous groups. Using a code sheet the researcher transcribed all interviews. The researcher looked for and coded key words, and phrases with similar meaning; categorised issues by themes, and compared responses from lecturers and teacher students. The information obtained was then reported in themes, frequencies and percentages using MS Word and SPSS. Narrative reports were used so that situations were described as they occurred in the natural setting. The information from the analysed data was examined critically and inferences made on the basis of the evidence of the findings, summary of knowledge acquired, conclusions and recommendations were then made.

CHAPTER FIVE

5. Presentation and Discussion of the Findings

5.1. Introduction

This chapter presents the research findings from teacher students and their lecturers in the Faculty of Education at the Catholic University of Eastern Africa (CUEA). The study sought to find out the awareness of Education for Sustainable Development (ESD) in the Faculty of Education at CUEA. Questionnaires were administered to 81 students and interviews were conducted with 11 lecturers. Only 67 students returned the questionnaires. On the other hand out of 13 lecturers earmarked for interview 2 were not available due to unavoidable circumstances. The findings are hereby presented in descriptive statistics and thematic narrative form. These findings are presented in five sections. The first section gives background information of the respondents and the rest four are in line with the four research questions. The main sections shall be as follows:

- 1) Respondents' Background Information
- 2) Knowledge of Education for Sustainable Development among Students and lecturers
- 3) Community Service Activities
- 4) The Role of Research in Solving Contextual Problems
- 5) Suggestions on how to Address the ESD Themes

*5.2. Respondents' Background Information***Table 3 Student teacher's sex**

sex	frequency	percent
Female	36	53.7
Male	31	46.3
Total	67	100.0

Table 4 Student teacher's program of study

Programme of study	frequency	percent
Regular	44	65.7
School focused	23	34.3
Total	67	100.0

Table 5 Student teacher's year of study

	Frequency	Percent
Fourth	20	29.9
Third	20	29.9
Second	14	20.9
First	13	19.4
Total	67	100.0

A total of 67 students participated in the study among whom 53.7% were female and 46.3% male. Part of the students who returned their questionnaire 65.7% and 34.3 % were in the regular and school focused B.Ed. study programmes respectively. The student teacher distribution per class was 13 in first year, 14 in second year, 20 in third year and 20 in fourth year.

Table 6 Lecturer's sex

Sex	Frequency	Percent
Female	7	64
Male	4	36
Total	11	100

Table 7 Lecturer's years of lecturing at CUEA's Faculty of Education

Years of lecturing at CUEA	frequency	%
2	4	36.36
4	2	18.18
1	2	18.18
3	1	9.09
9	1	9.09
10	1	9.09
Total	11	100

Sixty four percent of the lecturers interviewed were female and thirty six percent male. Above fifty five percent of the lecturers interviewed had lectured at the Faculty of Education CUEA for more than three years thus giving credibility to information given by them since they are fully accustomed with the curriculum on offer and the teaching learning environment.

5.3. Knowledge of Education for Sustainable Development among Students and Lecturers

This section's findings shall be responding to the research question: In what activities does the Faculty of Education (students and lecturers) in CUEA demonstrate knowledge of ESD? These demonstrated their knowledge, attitudes, opinions, views and thoughts on various components on Education for Sustainable Development (ESD).

The first question in the students' questionnaire sought to find out students overall feeling towards the coverage of the following components of ESD: Peace, Environment, Development, Entrepreneurship, Information Communication Technology (ICT) and HIV/AIDS Education. Table 5.1 presents a summary of students who felt CUEA did offer education in the ESD selected areas, those who felt it did/did not and those who gave no response either due to hurry to finish filling in the questionnaire or they did not have an idea/response. The findings are discussed below.

Table 5.1 Students Opinion on whether CUEA offers Education in ESD

Selected ESD areas of concern to Africa at CUEA	Students						Total	
	N=67							
	selected area is on offer		selected area is not on offer		I do not know			
	n	%	n	%	n	%	N	%
Entrepreneurship	64	95.5	2	3	1	1.5	67	100
Environment	63	94	3	4.5	1	1.5	67	100
Development	57	85.1	7	10.4	3	4.5	67	100
ICT	45	67.2	18	26.9	4	6	67	100
Peace	41	61.2	22	32.8	4	6	67	100
HIV/AIDS	32	47.8	31	46.3	4	6	67	100

Opinion on Coverage of Entrepreneurial Studies

The students overwhelmingly with a majority of 95.5% affirmed CUEA offered entrepreneurial studies. It was their feeling that entrepreneurial studies would enhance investment by teachers hence leading to job creation other than seeking employment. Also, they felt teachers would teach the students and community good investment practices so that the community could be trade conscious.

All lecturers were of the opinion that studies on entrepreneurship are essential. They advised that the graduates should practice what they learn and invest in schools as groups upon graduating. They encouraged that education offered in the Faculty should enhance entrepreneurial spirit so that the graduates engage more and more in business alongside their careers. This will empower teachers to be self reliant and good guides to the society and their learners on investment as an alternative to employment.

Opinion on Coverage of Environmental Studies

Students felt this unit is covered well but indicated it needs to depart from being theoretical to practical. A majority of 94 % said CUEA offered environmental studies, 4.5% indicated does

not and 1.5% did not respond. Those who affirmed posited that environmental studies helped them to conserve environment. This is an opinion also shared by the lecturers who observed that there are garbage bins all over the compound. One of the teacher students believed that Environmental education enabled one to develop the stewardship attitude towards environment, hence promote, manage, and conserve environmental resources by the present generation without jeopardizing those of the future”.

All the lecturers concurred with the teacher students that environmental education is an area the Faculty as well as the university emphasised. The Faculty offered a unit on environmental education. In addition the university engaged its members in community service that often was geared to environment conservation, tree planting and cleaning the environment. They also observed that litter bins were put in strategic places in the compound, the waste was properly managed, drainage system management properly planned, adhered to National Environmental Management Authority (NEMA) requirements before putting up new buildings and compound was neat. On drainage the lecturers recommended that more be done to avoid standing water during heavy rains. One lecturer observed that the contractors who did the university internal roads did not do it properly in some areas consequently leading to quick destruction. The need to make environmental studies practical and community oriented was also reiterated. They insisted on community project based environmental studies. Finally, respondents felt the need for the Faculty to offer a degree programme in Environmental Studies.

Students' Opinion on Coverage of Developmental Studies

The respondents felt CUEA offered developmental studies. Though an overwhelming 85.1% thought that it offered education in development studies it is ironical that unlike in other components in this section students had barely nothing to say when asked to give the overall judgment of its coverage. This left one with the notion that the respondents aren't pretty sure

what development studies were all about.

Opinion on Coverage of Information Communication Technology

A substantial 67.2% of the students felt that a unit on ICT is on offer but rather in a theoretical manner. Nevertheless, 26.9% stated that CUEA does not offer studies in Information Communication Technology and 6% gave no response. Overall comments showed there was need to offer wide range coverage of studies in Information Communication and Technology. As an expression of need the respondents indicated that ICT would ensure they compete favourably in the job market. In addition they viewed scientific technology and print media as the new approach to teaching that cannot be wished away.

As felt by the student respondents, the lecturers concurred with them that ICT was indispensable in teacher training in the 21st century. They however felt that there was need to offer computer application and use of ICT in teaching as opposed to the only computer literacy course that is offered. The respondents felt that the students needed to use ICT as a base for research knowledge in order to be up to date with the world education trends. It was observed that ICT was expensive but an important component of learning that cannot be dispensed.

Opinion on Coverage of Peace studies

On peace education the student-teachers felt that it was tackled not as a main unit but as component of General Study courses. As seen in table 5.1, 61.2 % of the respondents observed that CUEA did offer education in peace whereas 32.8 felt it did not while 6% did not respond. Those who agreed that peace education was offered in the Faculty did not give many reasons for their response. What seemed to stand out was the feeling by the respondents that Peace Education was vital as it was one of the major challenges facing the world of the contemporary teacher. The respondents noted that peace was mentioned during seminars

which took place sporadically.

From the student teachers' responses it was clear that they place great importance on peace studies. They saw learning of peace studies as an impetus to creating a peaceful society as they would transmit this to the society via classrooms. They appreciated the extent to which the university integrated issues of peace in general study courses. In addition they wanted the Faculty to develop units in peace. It was also suggested that the university needed to offer higher studies on peace and conflict resolution.

All the lecturers identified peace and reconciliation studies as one area that the Faculty should introduce. Like the students they felt the need for the teacher-trainees to possess skills to enhance and cultivate peace. They posited that the trainees needed to learn on diversity and multi ethnic coexistence and how the diversity can be transformed to unity and strength.

Students' Opinion on Coverage of HIV/AIDS Studies

This unlike the rest of the components was the least scored as being covered in teacher training at CUEA. Only 47.8% affirmed the studies on HIV/AIDS were on offer against 46.3% who felt the HIV/AIDS issues were not tackled in the education offered to teacher trainees. All the respondents agreed that this was a world pandemic and teachers needed to be equipped with appropriate knowledge and skills to tackle it in the classroom and the society. All in all, the students hailed the provision of fulltime Voluntary Counselling and Testing (VCT) in the campus' infirmary. But they felt the same importance should be put in teaching the HIV/AIDS relevant courses in the campus. The students felt much is to be done in the HIV/AIDS awareness and counseling.

Overall judgment and suggestions on coverage of selected ESD areas

Table 5.2 shows the breakdown on the overall judgment of whether the ESD selected topics were adequately covered.

Table 5.2 Students assessment of the coverage of Selected ESD Areas

<i>Opinion on coverage</i>	<i>Frequency</i>	<i>Percent</i>
Not adequately covered	24	35.8
Averagely covered	23	34.3
Adequately covered	14	20.9
No response	6	9.0
Total	67	100.0

In Table 5.1 the majority of the students agreed ESD studies were offered in CUEA. However, when asked to evaluate the coverage adequacy 34.3%, stated that the coverage of the content was not adequate, 35.8 believed they are averagely covered as seen in table 5.2. Only 20.9% were of the opinion that the ESD issues are adequately covered, and 9% did not respond.

They observed that ESD selected areas of studies opened the mind of the teacher and made the teacher participate fully in the society. In addition, students felt that those areas of study were vital for the benefit of the community. Studying other studies without only being limited to teaching units was what according to the respondents led to developing an all rounded teacher. What was covered in General Studies (GS) was said to be bits and the classes are also too big for beneficial discussions on these issues to take place. The respondents were of the view that having knowledge on the ESD related issues would enable them to impart knowledge, values, attitudes and skills that would help the student they teach and the community to live sustainably. In order to offer studies on the selected areas it was suggested they be integrated or be merged in the already existing units. That means only a unit whose contents could not be integrated in the already existing areas of study could be taught separately.

It was suggested that courses should be developed or the content coverage of teacher training in CUEA be reviewed to address these issues. The students admitted the selected areas for this research were vital to a teacher in the context of African society that was plagued by war, poverty, HIV/AIDS menace, slow technological advancement among others. Entrepreneurship and environment education were identified as courses already on offer. It was observed that in the process of transmitting knowledge in the classroom, the teachers would develop a generation of environmental and entrepreneurial school graduates who would transfer the same to the society.

Applicability of what is learnt in life situation and understanding the job world

This section highlighted the student teachers level of confidence in what was learnt in view of relevance in life and teaching. The section therefore dealt with understanding of the job world and the applicability of what was learnt in work place and in life.

Education acquired in understanding the job world and the universe

As indicated by 97% in table 5.3, the teachers on training in the Faculty of education CUEA were confident in the education they acquired. They felt it helped them to understand their job world and that what was taught was also relevant to teaching career. The teacher students indicated they had been trained properly in subject areas, pedagogy, relevant world issues related to their profession, and they underwent relevant personal and professional growth. They felt they were more critical, responsible, had faith and had grown morally and ethically; they could cordially interact with students and colleagues; they knew the job market; they were good instructors, administrators and role models.

However, it is worth noting the teacher students showed limitation in their scope of job world as 97% took their job world to be the classroom where teaching and learning took place. This is the traditional jurisdiction of the teaching career as juxtaposed with the ESD viewpoint of

the teacher world. If the students were fully equipped with the ESD knowledge it was expected they would highlight issues related with contextual problems of poverty, gender disparity, HIV/AIDS, environmental pollution, globalization and unequal trade practices, war etc. and above all show the place of the teacher amidst these challenges. What ESD mind sought in this question was the teacher students understanding of the threats to sustainable development in their prospective job world.

Looking at the respondents' responses in relation to mastering their job world and the relevancy of studies offered in line with the teaching profession, it could be concluded that the Faculty did indeed offer quality training. Apart from the limited scope of the teaching world, it could be concluded that the teachers could effectively dispense their duties as teachers in the classroom. It is nevertheless important for the Faculty to train teachers with a mission to transform the society as a whole through education.

Applicability of what is learnt in life situation

The students were confident that they acquired quality education in CUEA. When asked whether they felt the education they acquired was applicable in life situation, an overwhelming majority said yes (94%) but 6% felt that CUEA encouraged rote learning where students cram for exams. Those who affirmed the education offered in CUEA was relevant in life situation argued that the teacher training courses were modeled to help the teacher face the teaching/ learning challenges by equipping teachers with knowledge, skills, attitudes and values that were necessary to practice effectively. Some courses that kept on recurring outstandingly as very helpful to the teacher students though not subject of this study were Human Behaviour and Learning and Developmental Psychology. Student teachers felt that these courses helped them to understand their students and help them to grow.

Table 5.3 Students opinion on applicability of what is learnt in life situation and in understanding the job world

Responses	N=67	
	n	%
Education I acquire help me to understand the job world	65	97
Education I acquire does not help me to understand the job world	2	3
The education offered is relevant to my teaching career	65	97
The education offered is not relevant to my teaching career	2	3
The education offered in the faculty of education is applicable in life situation	63	94
The education offered in the faculty of education is not applicable in life situation	4	6
What is learnt helps the teacher in contextual teaching learning challenges	62	92.5
What is learnt is deficient in contextual teaching learning challenges	2	3
Other	3	4.5

The teacher students felt the knowledge they acquired was holistic and widened their scope professionally and for life through understanding and appreciating the world. They said entrepreneurship helped in investment skills; Human Behaviour and Learning and Psychology in handling students and Environment Education in conservation of environment. The respondents also felt that there was need to find a way of education in Peace, HIV/AIDS and Development.

The students also affirmed that by the time they leave CUEA they feel they can teach their subjects effectively. The students also appreciated the foundation courses offered to guide in career choices, a learning environment free from strife and the fact that they easily accessed jobs due to the good name that CUEA graduates had in the job market.

Ethical studies offered in the Faculty of Education CUEA

Table 5.4 Opinion of the Students on the Ethical Studies offered in the Faculty of Education CUEA

Responses	N=67	
	n	%
Ethical studies offered in the faculty of education are essential	63	94
Ethical studies offered in the faculty of education are not essential	3	4.5
I do not know	1	1.5
Ethical studies enable me to enhance accountability and responsibility	61	91
Ethical studies are not necessary	3	4.5
I do not know	3	4.5
Ethical studies help me to be professional and morally upright	61	91
Ethical studies are not necessary in my professionalism and morality	1	1.5
I do not know	5	7.5

Ethical studies were highly rated by students as paramount in teacher training. As demonstrated in Table 5.4, 94% postulated that ethical studies were essential in teacher training. There was also the view that Ethical studies helped in enhancing accountability and responsibility (91%) and that Ethical studies ensure professionalism and moral uprightness (91%). The respondents thus approved Ethical studies as very vital in formation to moral maturity. They indicated how they even changed perspectives after taking the unit. The respondents felt they became more responsible, accountable, considerate, loving; understood the code of conduct for teachers; developed moral and ethical responsibility. Ethical Studies according to the majority of the respondents were properly tackled. Nevertheless there were those who felt the unit should be renamed from Christian Ethics to another title as it was studied by people of different faiths. This view was also shared by one lecturer who was interviewed when giving an appraisal of courses on offer in the Faculty.

Lecturers' knowledge on ESD

When asked if they had taken ESD or ESD related courses, 10 out of 11 lecturers interviewed said they had taken ESD related courses. Those who had taken ESD related courses mentioned courses like HIV/AIDS, gender, environment, ICT and education psychology/counseling psychology. Some had researched or presented papers in ESD related courses. Asked who organized these studies, 5 lecturers said it was personal initiative, 3 learnt as part of the graduate studies, 1 as personal initiative and part of graduate studies and 1 said it was part of training in the convent. From the findings it was clear CUEA did not have a conceptual framework on ESD. Most lecturers admitted that ESD was a new concept to them and had not heard about it before and it was only after explanation on what ESD addressed that they pointed out some studies they had taken which were of concern to ESD; they posited that they took initiative to take those studies out of the necessity to be up to date with contemporary educational challenges. It was also observed that the lecturers interviewed were not aware of the African module for the ESD studies. All the lecturers agreed ESD concerns in education were vital to teacher training and that CUEA and other universities needed to adopt ESD fully as it offered answers to most challenges in teacher training and achieving of overall education objectives in line with sustainable development.

Lecturers' knowledge of main bodies in ESD

The two main bodies in coordinating the ESD are the Global Higher Education for Sustainability Partnership (GHESP) Resource Project that could be described as a portal to qualified good practices along the lines of higher education's contribution to sustainable development (curricula, logistics and managerial practices and outreach/service to society) and the Mainstreaming Environment and Sustainability into African Universities (MESA Universities) Partnership. The knowledge of these two bodies and their objectives was seen as vital to lecturers as they centrally offered directions among other coordinators all under the guidance of UNESCO to Education for Sustainable Development. In the interview the

lecturers were asked whether they know of MESA and GHESP. Three said they had heard of MESA and nine had not. On the other hand four had heard about GHESP and seven haven't. Except two the rest had no idea what the two bodies are about.

One lecturer who had in-depth understanding of the two bodies and their working indicated that the MESA vision was not being practiced in CUEA. The lecturer was of the view that an integrated approach was needed. The lecturer called for a centrally coordinated approach of Education for Sustainable Development in the Faculty. In addition it was felt that there was a need of having a coordinator of the ESD in CUEA. A need for in servicing lecturers in ESD was also emphasised. The purpose for educating all in CUEA on education for Sustainability is because education for sustainability (Efs) is for all and is of paramount importance to or in all realms of life for the purpose of producing responsible and caring professionals for the sustenance of the earth, our first and last known home.

Sustainable infrastructure

The lecturers were asked their opinion on whether CUEA considered sustainability when putting up infrastructures. The purpose of posing this question was inspired by the knowledge that institutions that are aware of sustainable development put importance to sustainability factors when putting up infrastructures. This should consider: low water and light consumption, proper drainage and waste management systems; using least possible construction materials; considering environmental safety. The principle behind this is that the university should lead by example in using resources in a sustainable manner. The students would emulate the sustainable conscious practices applied in the university by implementing them in the schools they teach and in their lifestyles. These teacher students are also going to be educational leaders; when they have this knowledge and skills, attitudes and values, they shall make decisions, policies and exert influence to enhance sustainability. This therefore means by showing and involving students on coming up with sustainable infrastructures shall go a long way in ensuring sustainable development. The lecturers would

also enhance the same if they are involved in practicing it in the university in their homes, their area of influence and surroundings.

The lecturers were of the view that CUEA to some extent pays attention to issues of low light consumption, proper water usage, good quality building materials, waste and water management as well as the drainage system. This was also exhibited by the use of stop/push water taps in the washrooms as opposed to running ones in the new buildings that the university had put up like Tzadua Hall. Nevertheless the old buildings still had running water taps which did not save water. The university used tube/ fluorescent which save electricity and not tungsten bulbs which use more current. Mostly the lights were put on only when there was need. They observed that the university waste management is good.

Another observation was that before setting up any building the National Environmental Authority (NEMA) gives a go ahead to CUEA if safety and environmental conditions are met. At the same time the university had protected grass where grass lands are fenced so that people don't make paths or step on it. The buildings are also well maintained, the University has considered paths for disabled people while putting up new buildings something which was not the case with earlier constructions.

However, the lecturers observed that the following areas needed to be improved: the drainage system, control of noise pollution more so in Tzadua Hall where the partitioning materials were not sound proof, there were gaps left between some buildings which to one respondent equaled waste of limited space. The parking was inadequate and needed to be managed properly. The maintenance department also needed to be properly coordinated so that it would promptly responded to any reporting of damaged part of the infrastructures like tap, sewage and such.

Despite the university being seen to be putting attention while constructing new infrastructure to issues of sustainability it was not clear to the lecturers whether this was inspired by the

move towards sustainable development as nothing was said in relation to SD in the university circles that the lecturers were privy to. Besides, the lecturers observed that nothing had been done in areas like harvesting water, tapping solar energy and putting up structures in such a way that at day time there was direct light from the sky instead of putting lights on. The lecturers were however not sure of how the waste from the infirmary was managed. Finally, it was observed that sometimes those contracted to make the paths or the campus internal roads did not do a good job such that the roads got spoilt after a short while. More sustainable roads need to be constructed to avoid over utilization of the building materials.

Teaching pedagogy

ESD advocates for locally developed and implemented teaching pedagogies. UNESCO report (2006) indicated that the pedagogy like the content should consider what is available in the traditions to educate for sustainable development. The lecturers interviewed said they used multiple methods. They said from experience they had learnt that no one method could achieve the teaching and learning objectives properly. They explained that different methods complemented each other. This combining of various methods made learning interactive and the lecturers said that through experience they had learnt that learners achieved more and understood better when they interacted with one another, with knowledge, material and with the lecturer. The aspect of active participation was paramount to learning. Some pointed out that they believed their role was to facilitate learning. To involve the learner they gave topics to the learners in groups and as individuals to research on followed by presentations; each student participated in the presentation; the lecturer then gave the input last after students' presentation.

CUEA's Faculty of Education, however, did not have a specified method that all lecturers were expected to adhere to and one's method of teaching was on their discretion. Some lecturers were of the opinion that the Faculty of Education should, out of research, develop its teaching methodology that should be practiced and used to prepare teachers. In CUEA the

prospective teachers were exposed to various methods where they practically saw the pros and cons and could therefore decide which methods they would use in the future in classroom. Group work was used to enhance interaction/socialization, confidence building and inculcated team work.

Lecturers were also inspired by the desire to lead by example, ethical care and concern for the students, training in teaching profession and inspiration by educationist like Dewey and Nell Noddings philosophies in education.

The lecturers stated the following combination of methods as the ones they implemented while training teachers at CUEA: lecture, group discussions/group work, demonstration; project methods, pose problems, learners operated the teaching equipments like in power point, research and made presentations, learners threw insights, question/answer dialogue, debate, class discussion, library research, brainstorming, and exposition.

To sum up, the findings show there is unanimity in teaching methods used by the lecturers as a result of experience and realization of what works best. In spite of the methods used to teach working for the case at hand, it is recommended that CUEA's Faculty of Education invests on research to establish whether there could be another/other more appropriate method(s) of teaching which could be developed and be employed in teacher training in the Faculty.

Provision of education for sustainable development

All the lecturers posited that the role of the Faculty of Education in Providing ESD was to train teachers and equip them with knowledge and skills in sustainable development and also with research skills which they would employ in improving the teaching and life. At the same time the Faculty was also expected to instill values, knowledge, attitudes and skills on sustainable investment; provide education tailored to meet the development needs of Africa. To share knowledge the lecturers felt the need to establish linkages with other faculties of

education in other universities; exchange students and staff. At the same time the Faculty was expected to move away from theories and reproduction of knowledge to creation of knowledge. The Faculty was expected to address current challenges in the education it offers: Economic development, Conflict and resolution, Environmental conservation, political democratization, Gender and children issues and help through education to discard any retrogressive culture and develop empowering culture-work in complementary way, developing entrepreneurship centre for training youth how to manage business in a sustainable manner and Community service activities; develop educational projects in sustainable education e.g. farming. Finally the faculty was also urged to offer courses in education to lecturers of other faculties in the university and spearhead courses on teaching methodologies to all lecturers who have not taken any education course- show the need of pedagogy-organise seminars on teaching (art) especially during holiday and fund them.

The findings in this section clearly indicated that there was knowledge of ESD issues among students and lecturers. The curriculum offered to an average extent addressed issues of Sustainability. The major weakness of the Faculty's training in areas associated with ESD was that the studies were largely theoretical. The Faculty however needed to engage in offering studies in Peace, HIV/AIDS, Information Communication Technology (ICT) and Developmental Studies which the respondents felt were vital to teacher training. The lecturers lacked specialized training on ESD. In addition the university had no central coordination for ESD.

5.4. Community Service

Questions asked in this section aimed at finding out the students and lecturers participation in community service. This was inspired by ESD's concern that education should be geared to serving and transforming the society. The higher institutions of learning across the world have to serve the community as one of their missions.

The students were asked to list the community based activities they engage in that are

organized by the Faculty of Education. Table 5.5 presents the activities.

Table 5.5 Community Service activities

N=110		
<i>Activities</i>	<i>n</i>	<i>%</i>
Environmental in nature	19	17
Teaching/Visiting Schools Activities	17	15.454
Community Service Day	15	13.636
Club Activities	11	10
No Response	11	10
Awareness and Seminars	10	9
Donations	9	8.181
Guidance/Counselling/Peer counsel	8	7.272
Project Writing/ Youth Projects	5	4.545
Visiting the Sick, Assisting Needy	5	4.545

These topics summarized in the Table 5.5 can further be divided into the following categories: Community education, Clubs activities, Charity, Development Projects, Community Service Day, Environmental, Entrepreneurship and Other individual Activities as explained below.

The teacher students indicated they participated in seminars, workshops, symposiums, visiting schools, public lectures, career talks, leadership seminars and talks either as individuals or Faculty initiatives. They educated the society on HIV/AIDS, environmental conservation, peace, importance of education, and other current issues prevalent in our society. The major Faculty organized activity was the teaching practice for all prospective teachers and was preceded by direction and learning how to go about it and followed by close monitoring and evaluation in the process called supervision. The students felt that was community service because they engage in it with dedication yet they were not paid. They took it as an opportunity to serve the community but not as another exam they had to pass.

Majority of the respondents indicated that they planted trees, cleaned the environment, educated on environmental conservation, and enhanced awareness on good use of soil, water

and sanitation as their contribution to serving the environment. The Natural Science Club particularly was mentioned as having one of its objectives to conserve the environment.

There was a Community Service Day and other community activities in the University. The community Service Day was the annual day set apart by the university to engage in community service. Almost all students expressed that they were involved in the activities of the day. Some of them were even part of the organizing team. The activities listed as carried out that day were cleaning environment, tree planting, teaching, visiting the needy and supporting them, working in charity homes, educating, raising awareness on HIV/AIDS and guidance and counseling. Community cultural festivals to promote good cultural values, raising funds to support the needy students, offering scholarship through CUSO, assisting in community leadership, community and sports activities. The activities carried out by the members were determined by each year's theme as planned by the Community Service Day Committee of that year. Various clubs engaged in various community activities especially visiting children homes like BulBul in Karen and service in university. Two clubs were mentioned as active in this: Language Arts Club (LAC) and Natural Science Club. The respondents indicated they donated food, pads, books, money, stationery and cloths to charity homes. They raised these funds and items from the community of CUEA.

From the findings it was clear that apart from the community service day and teaching practice which were organized by the university, there was no centrally organized department to coordinate community service. It was also evident that the education on teaching offered in the Faculty was lecture-room based and lack community-based approach. This observation will be substantiated by the suggested community based activities (summarized in table 5.6). It will also be noted that most of the community based engagements identified by the students were personal initiatives or organized by clubs. Therefore, it is imperative that the Faculty needed to strongly come in and reign on ensuring that the students engaged in

community projects either as groups or individuals in a coordinated manner. This is also one of the suggestions put across by some lecturers in order to make the CUEA education degree more practical and community service oriented. This was posited because students possessed enormous knowledge, skills and energy that could be channeled to educating the society. Participating in community service projects would as well enhance their career through the experience gained.

Suggested community service activities

The prospective teacher respondents were asked to suggest community activities other than the ones they engage in the Faculty of Education which the Faculty should be engaged in.

Table 5.6 is a list of the activities suggested.

Table 5.6 Proposed Community Service Activities

N=58		
Activity	n	%
Seminars/Awareness/Talk	23	39.6551
Environment	14	24.137
No Response	10	17.241
Teaching	6	10.344
Guidance and Counseling	5	8.620

The activities in Table 5.6 can further be summarized under the themes: educational, environmental, Entrepreneurship and Charity.

Educational activities suggested were writing school magazines, writing educative articles and teaching in slum, prison, community and non formal education institutions. The respondents suggested the following: Seminars, workshops, public rallies and other community engagements in educational gatherings to educate on sustainability. In addition Interfaculty and inter university exchange to allow sharing of knowledge and skills were suggested. Finally, the need for teacher students to visit schools and engage in teaching, diagnose learning problems, share knowledge with teachers in the field and students, and find

solution to educational problems was said to be paramount.

On environmental realm the respondents posited that in teacher training it was needed to deepen knowledge on environment and sustainable development. They listed activities like: educate on environmental conservation e.g. proper litter disposal; have an environmental day; write articles on environmental issues; teach on good industrial disposal; hold public talks and rallies to address challenges facing the society e.g. organize campaigns involving students to fight against environmental degradation, dumping of litter in the wrong places, forest destruction, and littering environment; give seminars on environmental sustainability; provide environmental education to the community; care for the environment and; visiting markets and educating the people on importance of collecting litter and to enhance cleanliness of the environment.

As far as entrepreneurship was concerned, the following activities were listed by the respondents as essential to enhance entrepreneurship: teach entrepreneurship skills; engage in development projects; promote income generating activities; engage in youth development projects to keep them busy; use the knowledge of entrepreneurship in writing project proposals for the society's development.

The respondents also listed the following charitable engagements as the ones they would wish to participate in: visit the sick, donate money, teach in prisons, visit physically challenged and educate them, visit children homes and offering voluntary services. Finally, campaign for the maintenance of good African values statement stood out as an independent suggestion made by one respondent. The researcher found it necessary to list it because the ESD proponents postulate that some traditions already discarded or on the verge of being lost enhance sustainability. UNESCO (2006) in its survey findings recommended that cultural studies should be taught in schools as part of Education for Sustainable Development. This includes cultural morality, African socialism and mother tongue and even considering

teaching in mother tongue.

Lecturer's participation in community service

The lecturers were asked to indicate how often they engaged in community service. Seven lecturers said they engage in community service spontaneously and in an ongoing process, two once a semester, one sporadically and another when opportunity arises. Some activities they identified include environmental conservation, educating the community, mobilizing the community to tackle the problems in the neighbourhoods like collecting litter, clearing the drainage etc. The participation of the lecturers in community service seemed to be in line with the ESD expectations. One ESD perspective is that educated people in the society should dedicate themselves to serving the community and improving the living standards.

Roles played by Faculty of Education CUEA dons in the society

Education according to ESD has a transformative role in bettering life in the community. And that explains why ESD gives prominence to community service. The lecturers were expected to play a major role in serving their communities as individuals. The researcher found that CUEA lecturers were actively involved in community service.

To begin with, the lecturers were involved in many community activities. They provided civic education on many societal challenges like HIV/AIDS, democracy, and environment. Secondly, they participated in policy formulation to develop policies that enhance sustainability. Some offered counseling services to the community, participated in church and women groups, held leadership positions in community welfare groups etc. They also conduct research aimed at solving societal problems. Thus they initiate change through research, writing and mobilizing community to development.

The society takes the don to be its mirror. They are therefore keen on their living by living modestly. It was posited that the dons needed to avoid extravagance which could lead to

resource over use. ESD has one of its major aims being to reduce resource wastage by enhancing conservation. This is because the rate at which resources are being exploited today in the world is not sustainable.

Moreover, the dons believed that they could use education to train human capital in a way that could equip them with multiple skills to radically change the way things were done; rid corruption and tribalism; enhance socialization; develop people with values; educate the public not to waste resources; involve public officers like public health in social meetings; and use of locally produced goods e.g. Akala. Also they felt they needed to volunteer in helping school dropouts to complete their studies, conduct workshops to train teachers, highlight injustices, and comment on politics without taking sides, raising awareness and inspiring critical thinking to learning.

Students' involvement in community service

Any teacher training institution offering ESD is expected to have an elaborate programme to involve students in community service. This is in line with ESD expectations as defined in the African Universities Module which requires university students to be involved in fulltime academic projects attached to the community service. The community projects in ESD African Universities Module aim at involving the students in educating the society practically by engaging in Sustainable activities that consider the intertwining of social, economic and environmental factors.

There were 36% of lecturers who said they don't organize community service involving the students, 27% said they do it spontaneously, and 37% do it once a semester. From this response it could be concluded that unlike the way lecturers were active as shown above in section 5.2.3., they did not organize activities for the students to serve the community. They argued that the orientation of the studies in CUEA did not have room for such projects and studies were lecture hall based. There was however an indication that the Faculty might in the future establish such a programme. The teacher students in such a programme shall be

required to engage in community service once a month or twice in the neighbouring schools particularly in the schools that educate the poor and informal learning institutions. Such a programme was already underway where some lecturers were educating high school drop outs for secondary school certificate.

Proposed activities to enhance SD

The lecturers proposed various activities that the teacher students could engage in to enhance sustainable development. They expected the trainees to engage in activities in educational and creative activities. The lecturers felt the teacher students have a role to educate the society in areas of entrepreneurship, environmental conservation, utilization of creative arts in self development, youth development projects, peace education, civic education, writing books, voluntary teaching, and involvement in policy making.

In brief this section has identified the community activities carried out in the Faculty of Education CUEA by the lecturers and students. They have also suggested various community engagements they think if integrated in teacher training they would enhance SD. Through the suggestions on ESD in this section it is clear the lecturers and students had a very good understanding of kind of orientation CUEA needed to be in line with ESD.

5.5. Student Teacher's Role in Selected ESD Areas

Table 5.7 The role of the student teachers in earmarked ESD areas of concern

Responses	N=67	
	n	%
<u>Environment</u>		
I enhance environmental conservation	66	98.5%
I have no role in environmental matters	1	1.5
<u>Patriotism</u>		
I instill patriotism	51	76.1
I don't know	16	23.9
<u>HIV/AIDS</u>		
I educate on HIV/AIDS	43	64.2
I encourage people to be tested and live positively	16	23.9
I encourage safe sexual behaviours	1	1.5
I do not know	7	10.4
<u>Civic Education</u>		
The student teacher engage in civic education	43	64.2
The student teacher has civics knowledge	1	1.5
An answer not related to civics	10	14.9
I do not know	13	19.4
<u>Politics</u>		
I create an informed society by creating political awareness	41	61.2
I keep off politics		
I am active in shaping country's politics	2	3.0
I do not know	18	26.9
	6	9.0
<u>Morality</u>		
I am a role model by being morally upright	38	56.7
I help students to be morally upright	6	9
I create awareness about morality in the society	22	32.8
I do not know	1	1.5
<u>Economy</u>		
I enhance entrepreneurship to boost economy	24	35.8
I educate on use of resources in a sustainable way	11	16.4
I educate on industry	16	23.9
I do not know what economy is all about	14	20.9
Pay taxes	2	3

The role of the student teacher in relation to environment

The respondents, 98.5%, felt that the teacher could conserve the environment through providing education, engaging in conservation and leading by example for the society to

emulate. In addition the respondents felt the need to improve the quality of environment through afforestation, reduce pollution, collect litter, planting trees etc. The role of the teacher trainee, they observed, should be to mobilize where possible the public to conserve environment, reclaim wastelands and prevent soil erosion. The respondents asserted that they learnt environmental education that helped them to care for environment.

The role of the student teacher in relation to instilling patriotism

The respondents, 76.1%, felt that the student teacher had to be patriotic, study patriotism and teach it. In the same vein it was indicated that it was the duty of the teacher to instill loyalty, inspire confidence and empower students. Even so, the trend of respondents saying they did not know was also prevalent in this section with 23.9% indicating they were ignorant of this topic. This again could be attributed to the fact that no direct studies were geared to patriotism. It is however a concern to ESD in that patriotism helps to develop responsible citizens who serve their countries honestly, transparently and accountably. It is also expected that the teacher should inculcate the spirit of hard work and development conscious minds. For that reason, having a substantial 23.9% of prospective teachers then was an indicator that issues of patriotism needed to be integrated in teachers training curriculum. This is because the teacher is being trained for educating students for a higher national duty. Lack of patriotism being inculcated in students may explain the presence of some ills bedeviling Africa like corruption, incitement to violence and wars, negative ethnicity, brain drain, and poverty to mention but a few.

The role of the student teacher in relation to HIV/AIDS

The underlying message from the respondents was that the teacher needed to be knowledgeable and skilled on HIV/AIDS. This very knowledge, 64.2% posited, should be transmitted to students and the society. The respondents felt this was a global challenge. They pointed out that the teacher trainee had to lead by example by being morally upright.

They said the prospective teacher must practice the golden rule of ABC that is Abstinence, Being Faithful to one partner or using a Condom (protection).

The respondents felt that the teacher having mastered how to control HIV/AIDS then they would be in a better position to transmit the same values to the students. Above all the teachers were also expected to raise awareness on the HIV/AIDS. That was on how it was contracted, prevented and how to live positively with it. They pointed out that the teacher trainee had to take active role in helping the community deal with HIV/AIDS menace.

The role of the student teacher in relation to civic education

The respondents, 64.2%, pointed out that one of their key responsibilities was to educate the society on governance, human rights, voting rights, rights and responsibilities of citizens and constitutional matters. They said the teacher was the messenger to the students and society. They highlighted that the teacher educates the society and prepares young people for responsible living and a proactive life in the society when they are grown ups. The learners also pass the knowledge they acquire to the society. It was nevertheless important to note that the number of respondents who did not respond was substantially high. 19.4% did not have a response and 14.9% gave responses not related to the civics education as seen in Table 5.5. This led to a conclusion that a substantial number of students taking teaching had limited knowledge on civics education. It could also be posited that they did not see any connection to the teaching of subjects in school and social civic responsibility. The university also did not emphasise much on offering civics to the teacher students. Due to high levels of ignorance and illiteracy in African continent, it was vital for the teacher to engage in civics education directly in the classroom and in the society. It was therefore important for the Faculty of Education to consider how to instill knowledge on the civics education and help the teacher feel obliged to raise awareness in the society. ESD portends to address such challenges as providing civics education to develop an informed decision making society.

The role of the student teacher in relation to politics

The respondents viewed that man cannot be separated from politics and the teacher is the educator of the society on political affairs. The teacher has a duty to inform the society on the role of politics to enhance stability, choice of leadership, enhancing tolerance and accepting divergence. The teacher student has to be an informed informer, non biased, and proactive in enhancing good political system through the classroom. There are however those who showed indifference by not responding at all and stating that the teacher should keep off politics. This was 9% and 3% respectively. Those who felt that the teacher should educate the society on politics were 61.2% whereas 26.9% indicated that the teacher should be active in shaping up the country's politics. Consequently, it was therefore concluded that the respondents felt that the teacher has a role to guide the society on political matters.

The Role of the student teacher in relation to morality

Most respondents, 56.7%, were of the opinion that the teacher students needed to lead by example. This was also echoed by the lecturers when asked what they expected of the graduates they released to the teaching job market. The lecturers said they expected CUEA teacher graduates to be role models in teaching, adhering to professional code, living good family life and in the way they lived their daily lives.

The role of the student teacher in relation to economy

Respondents put it that teachers needed to be up to date with economical development trends. The majority, 79.1%, engaged in activities that enhanced economical knowledge in the society. They felt economy was an important part of knowledge the teachers had to possess. They were therefore upbeat they had taken entrepreneurship course. Entrepreneurship would help them create employment by investing while at work or even if they are not employed or upon retirement. One lecturer said that the CUEA graduates ought to team up and start good schools. The student teachers also said they would teach entrepreneurial skills to help

students engage in business. Investing would help the students earn money and be self-reliant. Nonetheless, there were respondents who did not respond or said they had no clue on the role of a teacher trainee in economy. This was 20.9%. The 20.9 % that admitted ignorance on economic matters was high as well. Bearing in mind that the respondents study entrepreneurship they were expected to show the connection of the knowledge acquired and transmission in class and practice in life. It was also clear from the responses that there were those who had not internalized entrepreneurial knowledge and thus could not practice or impart practical knowledge to students. Perhaps this was as a result of what some respondent called rote learning or learning for exam. This also confirmed what some lecturers and student teachers blamed as overemphasis on theoretical learning. It was therefore suggested that the Faculty of Education needed to find a way of making its education more practical may be through students' projects in the community.

As seen above some student teachers at CUEA seemed to understand other roles of a teacher in the economic development of a country. This economic acumen could be attributed to studying relevant courses to economy like entrepreneurship.

Students' role in enhancing sustainable development

When asked the role they expected the graduates they released to the job market to play in enhancing SD the lecturers had a lot of expectations. They wanted their trainees to be role models by the way they carry themselves in the classroom, in the family and society. They lecturers expected their students to be honest, reliable and incorruptible teachers. At the same time, they expected them to be involved in policy making in their domains. In summary, the graduates were expected to use resources with care and make responsible decisions.

From the findings it was clear that teachers have multiple roles. Consequently that meant they were expected to assist the community in addressing the challenges facing their society at any given time. This therefore meant that the training of teachers in modern times needed

to be informed by societal needs and this would mean integrating issues of importance to the society in the studies offered.

5.6. The Role of Research in Solving Contextual Problems

One key concern for ESD is research. ESD postulates that universities should conduct research to unearth sustainability problems facing people and consequently suggest sustainable solutions. The researcher hoped to understand the students tailoring of research to Education for Sustainable Development. In this section the data obtained was analyzed under 3 categories that ESD focuses on: Social, Economical and Environmental. The problems mentioned were endemic to Africa, the continent from which respondents originated. The first part presents the problems facing respondents' countries of origin. Table 5.8 presents the summary of problems listed by teacher respondents classified under social, economical and environmental respectively.

Table 5.8 Listed problems facing the respondents' countries

N=216		
	<i>n</i>	%
Social problems	111	51.4
Economical problems	95	44.0
Environmental problems	9	4.2
no response	1	.5
Total	216	100.0

Social problems

The respondents identified 51.2% of problems facing their countries as social. Under this section the following problems were highlighted: endemic diseases, tribalism and cultural conflicts, racism, political problems, insecurity, drought/famine/hunger/starvation and corruption. In addition are the following problems: land problems, ignorance and illiteracy, religious rivalry, transport and housing problem, inability to combat disasters, poverty, poor

leadership, moral decay, inequitable distribution of resources, overpopulation, unemployment, slums, gender issues, drug abuse, abuse of women and children and poor governance. The respondents agreed there were indeed great social problems and there was need to address them sustainably. They called for ways to improve morality, peaceful coexistence, poverty eradication, social consciousness and responsibility. They felt that sustainable education was the avenue to addressing problems facing the society.

Economical problems

Respondents' identified 44% of the problems highlighted facing their countries as economical. The problems identified were inadequate money, corruption, rampant poverty, unemployment, corruption and inflation. The respondents also indicated that the income levels of many citizens are hardly enough to provide decent shelter, food or pay for education. This led to various social ills like crime, prostitution and environmental degradation. The respondents therefore felt the need to establish sustainable economic activities to empower citizens economically.

Environmental problems

Among the problems identified 4.2% were environmental problems ravaging respondents' countries. Many respondents did not seem to see environmental problems as the major ones as compared to 51.4 social and 44% economical listed problems. The following problems were listed as the environment ones: desertification, environmental degradation and environmental.

Though students had taken a course on environment education their level of knowledge seemed to be deficient because amidst dozens of problems diversely affecting countries in Africa like deforestation, poor drainage, poor waste management and disposal practices, noise pollution, water pollution, air pollution, desertification and many others they only mentioned three. The teacher students seemed not to have a clear connection between social,

economical and environmental interaction in enhancing sustainability. Majority thought that when environment was mentioned it was all about litter/garbage and cleaning and in its simplest terms sweeping.

Suggested Research Areas

Table 5.9 Suggested Areas that the Faculty of Education Should Research

N=140		
Description	n	%
Social Research Areas	75	53.6
Economical Research Areas	49	35.0
Environmental Research Areas	9	6.4
no response	7	5.0
Total	140	100.0

Social research areas

The 53.6% of responses were geared to research in social realm. Some of the areas the respondents recommended to conduct research were cultural, gender equality, insecurity and tribalism. In the same vein Political instability, medicine, insecurity, AIDS scourge, education issues, poverty eradication, peace, transport and housing of students in the college, Mungiki menace, and provision of education geared towards self-reliance and acquisition of skills that could assist in production of more food and hard work were also suggested. The respondents also wanted research to be conducted on how to provide education that would enhance humility, tolerance amongst students, the nature of curriculum as it pertains to self-fulfillment and self-employment-subjects such as home science, agriculture, music, art, HIV/AIDS and corruption. The respondents felt research should be conducted in the areas of leadership, peace, economic planning, counseling and culture. In addition the following areas were also suggested early childhood education, politics, promiscuity, poverty, tribalism, relationships, nepotism, crime, development, good governance; environmental issues, human rights as well as crime.

Economic Research Areas

A 35% of the responses indicated there was need to conduct research in economic areas. The research was suggested in the following areas of alleviating poverty, education, poverty alleviation, transparency and faithfulness. The respondents also felt the need to research on curriculum and corruption. In addition the following areas were also suggested: development education, population, entrepreneurship, unemployment, resources distribution, and importance of good governance.

Environmental research areas

According to the responses, 6.4% favoured research to be conducted in environment. The actual areas mentioned were overpopulation effects on environment, environmental diseases, environmental conservation and environmental issues which could be solved by education in relevant areas. The final suggestion was on how to neutralize the global warming effects.

Role of the research projects in Sustainable Development

Table 6.0 Classification of Research Role in providing SD

N=67		
Responses	n	%
Research will solve social problems	27	40.3
Research will solve social economical problems	20	29.9
no response	19	28.4
Research will solve social environmental problems	1	1.5
Total	67	100.0

As seen in Table 5.8, 40.3%, 29.9%, and 1.5% had their intentions to address social, economic and environmental problems respectively. 28.4% did not respond. This is the group that may have not decided their research topics. This may have been occasioned by the fact that some of the respondents have not yet thought of the research to carry out as they may be in first, second and third year and the research requirement is in fourth year.

Relevance of Research

In the interview all the lecturers observed that the research carried out by students in the Faculty was relevant to ESD. All the same, they observed that there was over concentration in some areas (e.g. performance) whereas others have not been researched on (like the role of education in enhancing poverty alleviation). They felt there was need to research on areas of other problems on SD under economic, social and environmental realms. The following were some areas the students had been conducting research in and the lecturers felt address issues of ESD: drug and substance abuse, Reproductive health, environment, Performance, Alcoholism among youth and Causes of crime among boys. Other areas were on adolescents, Gender, Culture and influence on education of girl child, Discipline, guidance and counseling, HIV/AIDS, Special education, Free primary education ,Counseling and peer counseling, Environment, Public relations, How parents could be involved in education of children, Problems facing mentally handicapped people in learning in integrated (mainstreamed) schools, visually and physically challenged, Strikes and disadvantaged groups in the society especially women and children. There was need for curriculum implementation to try and address the critical issues in education, segregation in schools-the private and public schools, Globalization and IT.

Research Project Titles

Table 6.1 Classification of the Areas the Students Intend to Conduct Research

<i>N=67</i>		
<i>Responses</i>	<i>n</i>	<i>%</i>
Research project titles to address social challenges	25	37.3
Research project titles to address economical challenges	21	31.3
no response	20	29.9
Research project titles to address environmental challenges	1	1.5
Total	67	100.0

As seen in Table 6.1, 37.3%, 31.3% and 1.5% respondents had their possible research titles in

areas of social, economic and environmental respectively. There were those who did not respond either because they hadn't identified their titles or they were facing difficulties in coming up with research titles. The titles given nevertheless addressed very pertinent issues under Education for Sustainable Development. If these titles were refined and research conducted in those areas it was likely that they would contribute greatly to sustainable development.

The students intended to conduct research in areas of tribalism, access to university education, Problems facing students in higher institutions of learning, management of educational institutions, insecurity, role of education in enhancing ESD, corruption, good governance, problems that result from inadequate number of teachers in schools, HIV/AIDS, poverty alleviation, economy and development. In addition the following areas of study were also mentioned: ethnicity, and education for all.

Under economic areas the respondents saw the need of conducting research in climatic conditions and their impact on economy, corruption, youth empowerment and self reliance, poverty alleviation and development, funding university education and subsidizing the cost, higher education for the poor, corruption and alternative funding for education. Finally one student wanted to carry out a Case study of CUEA to find out the attitudes and participation levels in environmental conservation by lectures and students.

Role of research in enhancing Education for Sustainable Development

The respondents made several suggestions on the role of research in enhancing Education for Sustainable Development. It would enhance awareness on sustainability matters. Research was seen as being of invaluable contribution in education in regard to reevaluating and understanding the countries' national goals of education and their relevance globally. There are those who felt research would tailor the education offered to immediate region challenges so that teachers and instructors would teach with emphasis in relation to their places of work

e.g. in north eastern, coast...Research would help in highlighting those most immediate and urgent issues in education that need to be emphasized on development such as politics and economy.

Research, hence would enable the nation to have a sound curriculum that could be practical and market oriented addressing for emerging issues such as HIV/AIDS, crime, clashes and globalization; result to a curriculum that is acceptable in other parts of the world. Research would lead to new innovations in methodology to teaching. Research would help in unearthing the problems facing the sector of education; research would assist in making recommendations to solve problems. Therefore, research conducted would help the researcher to come to terms with the needs of the country and capitalize on those needs when suggesting intervention measures. In addition respondents felt research was also a tool of education in that it would help unearth evils in the society and try to offer remedy.

At the same time the respondents felt that research helped in planning for the future and management of available resources. It educated stakeholders and equipped learners with relevant skills. Helped to know the causes of most problems, helped in suggesting ways of eradicating such problems, made an individual to acquire the right knowledge, skills and attitude for enhancing sustainable development.

In improving the economy, the respondents were of the view that research would help in fair distribution of resources, help people acquire skills to be self-employed and instill values of hard work to create wealth. At the same time the respondents believed that research on environment areas of concern would help the present generation realize that they were the care takers or trustees of the environment. This would hence lead to using the environment resources in a sustainable manner; without jeopardizing chances for the future generation.

5.7. How to Address the ESD Selected Themes

This section has proposals by the respondents on how ESD themes should be tackled in the

provision of education to the teacher trainees. The respondents also explained the reasons for their responses. In each case the respondent was given a theme and asked their view on how CUEA could address it. The issues in this section were Peace, Poverty Eradication and Development, Democracy, Social Justice/Equity, Human Rights, Science and Technology, Education for All (EFA), Education Technology and Information Technology, Environmental Conservation and HIV/AIDS. These issues (themes) were some pertinent areas that a Faculty of Education should address in Africa for sustainable development according to recommendations by UNESCO baseline survey report on sub-Saharan Africa report of 2006.

Peace

The respondents responses are classified in the following categories: offer studies in peace, practice peace, community engagement on peace. The respondents were of the view that peace studies should be studied at all levels. Some respondents proposed peace studies to be taught to students as a unit or be integrated in the general studies already on offer.

In addition the respondents observed that the teacher students and lecturers should lead by example. All should endeavour to coexist harmoniously and avoid strife. At the same time students suggested that secretaries and accountants in CUEA should be trained on customer service and courtesy in office. CUEA should be in the forefront in brokering peace in the community and educate the community on peace issues.

On the other hand organizing activities to teach, promote and spread peace were among the suggestions. The respondents felt experts, peace ambassadors and people who have dedicated themselves to promoting peace should be invited to sensitize others on peace. There was also a suggestion that clubs be formed to organize and coordinate peace matters. The center for Peace and Social Justice was identified as the one that should organize these activities in CUEA in the absence of any other association fully geared to Peace activities. Presentation of papers on peace by scholars was also suggested.

Poverty eradication and development

First, the respondents said CUEA should offer education in poverty alleviation. One view was that CUEA should provide model courses which would enhance wealth creation and eradicate poverty. They felt that education should address the poverty challenges in a sustainable way. They suggested that the courses on poverty alleviation be modeled in a way that they would expose students to the prevalent poverty stricken situations in the society and offer practical ways to eradicate it. Therefore, education courses needed to be tailored to enhancing development and reducing poverty. The students suggested that entrepreneurship studies needed to be improved to be more practical and community oriented and be taught alongside developmental studies. In the same vein, they indicated that these issues could be taught as separate units or courses or be integrated in educational units. There should also be community reach out projects. This was also the feeling of the lecturers as learnt during interviews that students ought to be exposed to fieldwork in form of community projects in their training period at CUEA. The respondents also felt that teachers graduating from CUEA should think in terms of creating jobs and not being employed but how they could employ others and increase homesteads' /domestic income.

Secondly, there are those who were of the opinion that CUEA should offer free education to identified poor. Some felt that CUEA scholarship programme was to be applauded and more resources needed to be channeled to students' scholarship, bursary and loans. The argument was based on the premise that education helped to reduce poverty and therefore students from poor families should also be in a position to access the quality education offered at CUEA. By providing education to the poor then CUEA would be alleviating poverty as the beneficiaries would have access to education and this education will guarantee them a brighter future.

Democracy

To begin with, the respondents were of the view that democracy unit or integration of it in the core education courses was a necessity in teacher training. Some felt it should encompass issues of human rights in it. It was also suggested that seminars and workshops be part of the democracy studies to complement what was taught in class. The student teachers believed that these courses should be dealt with in depth. The student teachers were also expected to offer civic education to the community on the citizens on their democratic roles and rights in the society. One felt that CUEA should also engage in carrying out research in democracy. It was also suggested that CUEA should work hand in hand with the government, the opposition, NGOs and institutions that try to promote democracy. Proposed also was the need to subscribe to dailies and other reading materials that promote democracy.

In addition, the student teachers posited that CUEA had to lead by example by widening the democratic space for lecturers and students so that students could emulate those practices. They expected CUEA to be the place where divergence of view point is celebrated. They said they wished to see more and more open forums where students, lecturers and administrators expressed their differing opinions freely and fairly with respect and the views were considered whenever decisions were arrived at. They expressed the view that democracy had to be implemented the lecture hall by allowing students to vote or appoint their representatives, ensure that CUSO elections were free and fair etc. This would trickle down to the classrooms where these trainees would teach in the future. They felt that CUEA needed to shun all forms of bureaucracy and widen the open door policy already in place. Some pointed out that CUEA had tried to establish democratic structures and they should work hard to strengthen them. They expressed the need for consultation with the students before making major changes like fee increment. The university was advised to revisit its policies and modify them to be democratic.

Social justice/equity

It was suggested that a unit should be developed to teach Social Justice and equity to students. Moreover, the fundamental issues in social justice and equity should be integrated in general studies educational courses. It was suggested that the teacher needed to acquire these values and transmit knowledge in social justice and equity. The centre for social justice was urged to be more active and enlighten the community on these issues. The university was also asked to open up to the society and work with others to ensure justice for all. This included enhancing the practice of justice, tolerance, gender equity, knowledge transmission, community projects and fairness to all. Also the respondents felt that the university should organize seminars, workshops, talks, public activities and symposiums as well. It was as well suggested that the university needed to exert influence in the society especially in constitution making as the keeper and protector of social justice and ensuring equitable distribution of resources.

The second proposal was that the university was advised to be fair, transparent and forthright in its undertakings. The students indicated that justice was practiced by the university but it was still to improve in some areas. The respondents wanted the university to be fair when hiring in particular. They should be fair in administrative undertakings as well. The university should help learners to internalize justice so that they engage in it because it was the right thing but not as a rule or obligation.

Human Rights

The respondents wanted Human Rights to be taught to teacher trainees. They felt there should be an education unit on human rights. They wanted courses, symposiums, discussions, workshops and seminars to be organized regularly and professionals and activists to talk to students about human rights. They also wanted teacher students be exposed to UN charter on human rights. In addition they felt this could be coordinated under a human rights

department in social sciences. They suggested research be conducted on human rights topics and the studies in human rights should be case based. There was also a suggestion that CUEA community be in serviced on human rights. Some proposed Theology Faculty and law departments should further be strengthened to coordinate these studies contrasting those who felt a department should be established to coordinate all human rights studies in CUEA under social sciences. Moreover, there was the postulation that there should be presentation of papers on human rights.

In the same vein, respondents wanted CUEA to lead by example. The teacher students would then emulate this and practice in the field. Therefore, CUEA should clearly stipulate rights for all stakeholders and abide. The university was advised to reach out to the society and ensure human rights are known and adhered to in its area of jurisdiction. The respondents highlighted right of worship as one area that CUEA should enhance. CUEA, they said, needed to liaise and work with human rights bodies locally and internationally to educate students and expose them to activities of human rights groups and activities. They felt clubs like CUEA Human Rights Association (HURIA) needed to be encouraged and funded by the university. The university was urged to follow cases involving violation of students' human rights, fund local and international human rights activities involving the students and Ensure violation of human rights was punishable by a disciplinary committee to enhance justice and ensure retribution. The university was asked to ensure the rule of law was followed, human dignity upheld and it ensures that the community it had influence on understood issues of human rights and enjoyed it.

Science and Technology (S&T)

The respondents wanted S&T to be taught and ICT be fully integrated in it. They want it to be practical and integrated in all learning. They said they felt they needed to open up to the world. The students categorically pointed out that ICT was not computer literacy. They

wanted CUEA to lead in the area of S&T. The students particularly pointed out that they wanted Engineering to be introduced. They wanted CUEA to offer more courses in S&T to help Africa develop sustainably. They felt CUEA had to go with time and move from offering social sciences and humanities only and start offering studies in sciences. CUEA was also urged to engage more in scientific research and offer technical and industrial courses. In addition the students felt they needed to be exposed more to IT, ICT and public talks be organized on the same. They felt education had a role to make a difference in the society and CUEA was advised not to fall into the trap of the diploma syndrome; it should be tailored to transforming the society and make life better. The lecturers employed also are supposed to be up to date with cotemporary S&T issues in education.

The students' views showed that the facilities were not adequate. The laboratories were not enough. More laboratories needed to be constructed and be equipped with modern facilities. Provision of adequate facilities would enable all students to access the facilities and engage in practical learning. The students suggested that the university needed to scout for sponsors to fund laboratories, information communication facilities, buildings and research centers. They felt the university needed to take advantage of its regional nature to provide highly practical courses to solve problems facing the African region by embracing S&T for sustainable development. They wanted Internet services to be improved and more cyber cafes be established and be equipped with adequate facilities. The university should also employ highly qualified technicians and lecturers to train and guide students in research and studies. There was need to improve and ensure students used modern technology in their learning. CUEA should be the hub of S&T in Africa.

Education for All (EFA)

The respondents felt CUEA had a duty to give more financial support to needy and capable students in form of scholarships, providing deserving student with tuition waiver, lowering tuition fee or bursary. The university was asked to ensure that education offered needed to be

of high quality and encourage the continuation of offering Universal Primary Education (UPE)/Free Primary Education (FPE) so that parents may save for Secondary schools. The university was also asked to liaise with the government to offer free secondary education. One respondent pointed that CUEA had succeeded in curbing gender gap as there was no gender discrimination in admitting students.

The respondents also felt that CUEA should offer gender education so that its graduates may be agents of curbing gender disparities in the society. Professors and students were also advised to write articles on EFA. CUEA was also advised to conduct research in the region on EFA. The university was also asked to sponsor activities that would enhance EFA like sciences in high schools and education on HIV/AIDS and have reach out programmes in remote areas and away from the cities. Support students from disadvantaged backgrounds to acquire education. Complement the governments' effort to offer EFA. Ensure teacher students were educated on this and conduct research on it. And above all always avail research findings on EFA to the Ministry of Education (MOE).

Education technology and information communication technology

The respondents felt there was an attempt to introduce students to Information Communication Technology in CUEA. They felt it was sketchily handled. They proposed that it be taught in details and practically. They wished ICT was integrated in daily learning in the classroom. Their view was that education technology be improved and be up to date and practical. They felt ICT was the trend in modern learning and it should be given the attention and consideration it deserved in teaching at CUEA. Some respondents are of the suggestion that a degree in Information Technology should be offered at CUEA.

About the facilities the respondents were of the view that the ICT/IT facilities were far from being adequate. The students wanted the university to equip the labs and cyber cafes with more up to date facilities. They wanted the university to improve the internet services. They

suggested to the university to pace up and construct the ICT complex. The university was also asked to make the internet services free and accessible to students to enhance learning and research.

Environmental conservation

The university already had a course on offer on environmental education. The students felt this was a good exhibit of CUEA's seriousness in seeing its graduates were environmental conservation conscious. They nevertheless felt that the course needed be made more and more practical particularly by being community based projects to conserve environment. They also suggested that field trips be part of the course. They proposed the course be obligatory to all students in CUEA. Another suggestion was that seminars, public speeches, forums and symposiums needed to be organized to increase the awareness to the entire CUEA community. Suggested also was that courses should be offered on environment management for sustainability. The reach out projects should be geared at helping the community to conserve the environment. Students should watch documentaries on environment. They should be made to understand the impacts of environment degradation and the value of protecting and taking care of the environment from an individual to community level. They should take initiative to make up for the destruction already done. There are those who suggested that the university should offer studies in environment science or environmental conservation as a degree.

The university is taken to be the model of the society. The society looks up to the university to show it direction. If the university conserved environment then the members of the society were likely to take suit. The catholic university, the students felt, had been a good example in this. It organized environmental protection activities where it planted trees, cleaned environment and educated the society. This was normally in its community service day held annually. The respondents however suggested that community service day be made twice a year or regular. They suggested environmental projects be made part of the study

programme. The students also suggested that CUEA should improve its drainage system and plant more trees and flowers. Good care should be taken for the seedlings planted. The university was also asked to have its organizations fully dedicated to saving our environment and encourage environment oriented clubs. The respondents also suggested water harvesting and preventing soil erosion as projects to be carried out by students as part of the learning on how to conserve water. The respondents felt that CUEA had taken good care of its environment and waste management. The respondents were of the opinion that CUEA was an example worth emulating by its graduates, neighbours and others. There was need to internalize the importance of not littering and trespassing. Clubs like geography and natural science also needed to be encouraged. Others suggested that participation in community service days dedicated to environment be a requirement that all in CUEA have to participate in and those who make major contributions be recognized.

HIV/AIDS

Teaching HIV/AIDS was pointed out by the respondents in order to equip them with essential knowledge. They therefore said CUEA should have an obligatory general course on HIV/AIDS. Alternatively the content may be consciously integrated in the general education units. This knowledge would enable them to know about transmission, preventive measures, positive living and all relevant knowledge on the pandemic. The teachers would transmit this knowledge in classroom and society. The studies should be detailed and clearly address the HIV/AIDS challenges. Seminars, workshops, public forums, talks and symposiums should be organized on the same to enhance awareness. The students should be shown the importance of visiting Voluntary Counseling and Testing (VCT) centres to know their status. Alongside HIV/AIDS studies sex studies should also be included to enhance self awareness and responsible sexual conducts. Students should be made fully aware of the Abstinence, Being faithful to one partner or using a condom popularly abbreviated as ABC. There was need to encourage safe sexual practices. The university should expand this education to the

community to eradicate ignorance and enrich the community with knowledge. The students said campaign was on and the university had established a VCT centre in the infirmary which demonstrated how seriously it took the HIV/AIDS scourge. Morality and ethical values should be encouraged and students be encouraged them to be role models by practicing what they taught. Short courses needed also to be offered regularly to educate members of the public. The counseling department should work hand in hand in developing and teaching the HIV/AIDS course.

The university was challenged to take the role of ensuring there was counseling services extended to the students and all those who sought them. Guidance and counseling should be made continuous so that lecturers find a way of integrating the issues in their teaching. Peer counseling should also be enhanced. Infected and affected people needed to be helped. The people living with aid (PLWA) should find consolation through university extensions. The university is urged to establish a kit to support the affected and infected people both within and without the university community. Campaign against stigmatization of the infected and affected and all needed to know that the first step was accept, value and help those already infected or affected so that they continue living a productive life. HIV/AIDS clubs should be supported in their endeavours to handle the HIV/AIDS challenges.

5.8. Suggested Fundamental Teacher Training Courses

Computer Application Packages

The respondents proposed that computer literacy be replaced with computer application. They said computer application was more detailed, practical and applicable in their teaching professions. They felt inadequate in computer application even after studying computer literacy.

HIV/AIDS AND Morality

The respondents postulated that the major challenge of the teacher in the current times was

HIV/AIDS. It affected and infected the teacher and the student. The community was at risk of extinction. This called for a knowledgeable and skilled teacher in tackling challenges and risks posed by it. The teacher needed to be educated on transmission, prevention and positive living. Morality, the respondents felt, would play a role in changing people's lifestyles. They advised that teacher trainee should be grounded properly on morality. The teacher needed to clearly demonstrate the link between Morality and HIV/AIDS and inculcate moral attitudes, knowledge skills and values in the classroom and in the society.

Peace and Conflict Resolution Studies

The teacher students posited that they were graduating and going to work in war torn places. The schools were neighbored by hostile people and students were becoming unmanageable. They therefore felt they needed to learn how to instill skills, knowledge, attitudes and values on harmonious coexistence. They would therefore possess diplomacy and crisis management skills. They observed that teachers were to work under pressure, including strikes and therefore new skills on how to handle crisis and survive under pressure need to be introduced to help the teacher manage their and students' stress. The lecturers also pointed out that studies on peace and conflict resolution essentially ought to be taught to prospective teachers in CUEA. Also to be integrated in this unit was appreciating divergence, peaceful coexistence of different ethnic groups and positive ethnicity.

Financial/Resource Mobilisation and Management in Schools

The respondents felt there was urgent need to train teachers on how to mobilize and manage school resources. They required these skills when they head schools in order to make wise financial decisions when running schools. Issues of fundraising, investment, bookkeeping, transparency and accountability should form part of these studies.

Corruption and its Consequences

The Bible says teach the young person how to live and when old they would remember it.

Schools are the avenues of teaching for our society today. And the teacher students felt issues of corruption ought to be taught to the teacher. The teacher had a duty and obligation to educate the learners in the classroom on vices like corruption. This particular vice had been highlighted by the respondents because of its detriment to the countries' economy leading to poverty, desperation, crime and loss of lives. It was therefore logical to equip the prospective teacher with foundational perspectives to feel obligated to use the classroom as the platform to rid the society off Corruption through instilling and inculcating virtues and values.

Health Issues in Education

The student teacher required skills on first aid, common school health issues, basic health requirements and how to address them. This was because sometime teachers are faced by some health challenges and they don't know how to handle them. It was essential for the teacher to know how to handle emergency cases in their areas of operation like fire outbreaks drowning, abrupt diseases and common ailments. The teachers would also help learners to prevent ailments or handle health challenges. The learners would also use this knowledge in life and at home. This was also part of reducing ignorance by the teacher and improving the living conditions via education.

Effective Study Skills

Studies in effective study skills would enable student teacher to enhance their students' performance and enable them to instill good study habits to their students.

Gender education and development

This should include a project to be undertaken by students in a nearby slum and engage women in development with a fulltime office labeled CUEA and students carry out case studies.

Education for Sustainable Development unit

The unit should be offered to expose the student to various issues on sustainable development. The course should be practical in nature.

Nationhood and patriotism should be instilled

This would enhance consciousness to country and inspire the will to solve problem of embezzlement, proliferation of arms, corruption; produce responsible and loyal citizens who value human dignity and not materialism.

Contemporary government plans

This would give teachers knowledge so that they would be aware of countries' development strategies and become implementers and drivers.

The introduction to university course

This would help students not to join teaching because they have no other option but as an informed choice.

Other Suggested Areas of Study

The respondents also suggested the following courses: dress code for the teaching profession, Development Studies, Public Relations, Co-curricular Activities and Physical Education, Law and Human Rights, Special Education, Course on politics and trends, Aviation, wildlife preservation, Social justice, Music, Early childhood, Islam religious courses, Journalism, B.Sc. information technology, Job training, Nursing/pharmacy, Veterinary medicine, Aviation, Medicine/Medical courses, Engineering, Foreign languages should be increased e.g. Japanese and Chinese, Management and disaster, industrial education, Agriculture, Human resource management, Information communication technology, Physical fitness and Legal issue in the education sector and Computer Pascal programming, Multicultural education in education foundations-diversity issues: gender, race, class; HIV/AIDS and related issues, Patristic education, Development studies, Advanced IT skills, Economics-to drive development in the country, Development of human capital, Industrial based

technology e.g. chemical engineering, technology structure, Project management, Strategic planning, Course on contemporary social evils, Course on social injustices and enhancement of meritocracy and nationhood; Community development, Agriculture, Drug and substance abuse and Youth and sexuality.

The lecturers and students suggested various courses not on offer which they felt would be relevant in addressing challenges and solving problems or that the prospective teachers would meet in the job world. These courses were similar to the kind of reorientation of the curriculum that the UNESCO study carried in sub-Saharan Africa suggested in 2006 in line with ESD.

To begin with, the responses in this chapter demonstrated the level of ESD knowledge exhibited by the students and lecturers. At the same time the respondents rated their involvement in community engagement and proposed other activities they felt practical that they wanted the Faculty to consider in teacher training. Another area that was lengthily dwelt on was research and its role in ESD. Finally various areas of study have been suggested to help teachers transmit ESD in the classroom and society at large effectively.

CHAPTER SIX

6.0 Summary, Conclusions and Recommendations

6.1. Summary

This research purposed to find out whether the CUEA's Faculty of Education was aware of Education for Sustainable Development. McKeown (2002) stated in her book *Education for Sustainable Development Toolkit Version 2* that in order to achieve sustainability through education, there was need to develop an ESD conscious teachers' generation. UNESCO (2006) concurred with McKeown and indicated that Faculties of Education needed to instill skills and knowledge of ESD to teachers. This conviction was driven by realization that the faculties of education train and produce teachers; these teachers developed policies in education realm in curriculum, ministry of education, education administration, education materials development, timetable writing, scheming or planning the lessons. Thus due to the role played by the teacher in designing education to be offered, the knowledge of ESD remain indispensable in developing education curriculum that would enhance ESD. UNESCO (2006) postulated that education is the tool for transformation and the teacher is the instrument of achieving the desirable changes in relation to sustainable education, hence the great need to train teachers on ESD.

Review of Related Literature showed that studies had been carried out on Environmental Education, Teaching Market Based Courses, Curriculum Implementation and Revision, Factors that Affect Performance in Schools, School Management, Guidance and Counselling etc. Nevertheless, there had been no Research carried out particularly in the Catholic University of Eastern Africa (CUEA) that dealt with ESD.

This study was guided by the following Research Questions:

- 1) In what activities does the Faculty of Education (students and lecturers) in CUEA demonstrate knowledge of ESD?
- 2) To what extent does the Faculty of Education (students and lecturers) in CUEA

engage in community based activities?

- 3) Is the research carried out by students in the Faculty of Education at CUEA relevant in solving societal education challenges?
- 4) What else is relevant to ESD and is not being offered in the Faculty of Education at CUEA would you like to suggest to be taught to teacher trainees?

The study employed survey and naturalistic research designs. It targeted the students taking Bachelor of Education at undergraduate level in the regular and school focused programmes and the lecturers teaching these students. The researcher employed stratified probability and simple random sampling to select 81 teacher students and 13 lecturers in the sample. The teacher students were 10% of the target population and the lecturers were 100%. Only 67 students returned the filled in questionnaire and 11 lecturers availed themselves for the interview.

To obtain information from the respondents the researcher used questionnaires and interview schedule. The instruments for the study were validated by three lecturers who were experts in research. A test retest or coefficient of stability method was used to estimate the degree to which the same results could be obtained with a repeated measure of accuracy of the same concept in order to determine the reliability of the questionnaire. A Pearson's Product moment formula for the test retest was employed to compute the correlation coefficient in order to establish the extent to which the contents of the questionnaire were consistent in eliciting the same responses in the first time and second the instrument were administered. The questionnaires were accepted at a correlation coefficient of 0.86.

Data were collected by the researcher and summarized into frequencies, percentages and thematic narrative reports. The study established the following findings:

Demonstration of ESD Knowledge

- 1) To an average extent CUEA was aware of Education for Sustainable Development

and its teacher training fairly conformed to ESD. This conclusion was arrived at as the data generated showed that issues of ESD were tackled in teacher training as independent units or integrated issues. There are units offered on Ethics, Entrepreneurship, Computer Literacy and Environment. Studies in HIV/AIDS, Peace, Poverty, Loyalty, ICT, Science and Technology, Democracy, Social Justice/Equity, Gender Equity, Human Rights and Education for All were either integrated or tackled sketchily.

- 2) It was observed that most studies in CUEA were theoretical or lecture hall based. This affected areas meant to be practical like computer studies.
- 3) The teachers trained in CUEA were confident that they were qualified to teach anywhere in the world. They appreciated the units offered in the preparation for the teaching career. The researcher also found out that the teacher students felt that studies in peace, computer application, HIV/AIDS, Democracy, Social Justice/Equity, Gender Equity, Human Rights, Patriotism/Loyalty, and Poverty Alleviation were not taught properly.
- 4) Neither was the ESD concept fully conceptualized by CUEA lecturers nor did the university have a center or department to coordinate ESD. The university didn't even have a conceptual framework for ESD. There was no in service course for lecturers in CUEA on ESD. The findings indicated that what lecturers were not aware of is the ESD educational initiative but their perspectives on what education should be addressing are in line with ESD.
- 5) It was observed that there was an attempt by the university to construct infrastructure that showed concern for sustainable development. Nevertheless, the university's orientation towards sustainable development infrastructure was below par.

Community Service

1) The Faculty did not have an elaborate programme of community service for the students. It was observed that the Faculty's role in community service involving students was at its minimal. It was observed that the only major community service activity that students and lecturers in the Faculty were involved in was the annual Community Service Day organized by the university. On the other hand the lecturers' involvement in community service outside the Faculty was to a greater extent. Most of them engaged in community service on an ongoing or spontaneous way.

2) However, the respondents suggested various community service activities that are in line with solving societal problems. These include regular teaching in poverty stricken neighbourhoods' schools like the ones in the slums, provide entrepreneurial knowledge and skills to women and youth in small scale investments, and engage in environmental education and preservation. In addition, the respondents' involvement in civic education and promotion of EFA in conjunction with other stakeholders were suggested.

3) There was a unanimous proposal that the training of teachers in the Faculty of Education should find ways of making it more practical by establishing community based student projects in the nearby schools and community. The projects should be continuous where teacher students would participate and conduct case studies in the process. This was one among dozens of community service activities that the lecturers and students suggested.

Relevance of Research to ESD

The teacher students conducted researches that were conscious of sustainable development challenges facing the immediate world. The respondents nonetheless observed that there was no much research carried out in areas of real challenges facing the immediate society like poverty alleviation, war and conflicts, education and development, sustainable infrastructure. The research found out that students and

lecturers placed substantial importance on research aimed at solving societal problems in their opinions and attitude.

Proposed Courses

The fourth Research Question sought to make relevant suggestions of areas of studies to solving contextual problems. The following suggestions were made:

- 1) The Faculty should offer a course to introduce students to ESD. All lecturers to be retrained on ESD.
- 2) The researcher also found out that the teacher students felt that studies in peace, computer application instead of computer literacy, HIV/AIDS, Democracy, Social Justice/Equity, Gender Equity, Human Rights, Patriotism/Loyalty, and Poverty Alleviation needed to be taught as independent units or be integrated in the General Studies in preparation of teachers.
- 3) The lecturers and teacher students suggested various areas of study not on offer that they believed would be relevant to addressing challenges and solving problems that the prospective teacher would meet in the job world. These courses were similar to the kind of reorientation of the curriculum that the UNESCO study carried out in sub-Saharan Africa suggested in 2006. The following were some of the proposed areas of study: Gender education and development, Cultural Education, Education for Sustainable Development, Peace studies/Peace and conflict resolution, Computer Application Packages, HIV/AIDS and Morality, Financial/Resource Mobilisation and Management in Schools, Corruption and its Consequences and Health Issues in Education.

6.2 Conclusions

Based on the findings, the following are the conclusions:

- 1) Based on the researcher's knowledge of ESD, the respondents postulations showed that CUEA covered ESD related areas averagely (minimally) and it was put as the Faculty's challenge to establish how it could address ESD issues adequately.
- 2) The respondents possessed concepts, perspectives and conviction that Education should be geared to in order to address contextual social, economic and environmental challenges.
- 3) The researcher clearly deduced from the responses that respondents knew how education could be used as a vehicle of transforming the society towards sustainable development. It was also clear from their suggestions that they knew what exactly needed to be included in teacher training to enhance ESD.
- 4) The graduates from CUEA's Faculty of Education possessed vital research skills, knowledge and orientation that they could use to conduct social, environmental and economical research for a sustainable future.
- 5) The researcher was convinced the student teachers in CUEA possessed some ESD knowledge that if transmitted through the classroom and other avenues could enhance sustainable development in social, environmental and economical realms.
- 6) The Faculty of Education CUEA was not fully involved in community engagement. The involvement in economic, social and environmental community projects as part of the study requirement was to a smaller extent.
- 7) The courses were tailored more on theoretical learning of education practice. The lecturers and students however emphasised the need for more and more community engagement programmes.

- 8) The lecturers expressed their intentions to integrate community projects in the training of teachers at CUEA.
- 9) The respondents felt issues of Peace, HIV/AIDS, Democracy, Poverty Alleviation, ICT, Human Rights and Social Justice/Equity were not properly tackled (though there was an attempt to teach them) yet they were essential to Sustainable Development.
- 10) The students appreciated this research and indicated strongly their desire to transmit ESD knowledge via classroom. The lecturers on their side praised the research and indicated it was educative and raised awareness on ESD. The research achieved its objective of raising ESD awareness.

6.3 Recommendations

Based on the findings the researcher made the following recommendations:

- 1) The Faculty of Education should establish a department or centre to coordinate ESD relevant studies for all students in the university not to mention the teacher students.
- 2) ESD department needed to be started to come up with a conceptual framework for ESD and strategic plan to guide the university in offering Sustainable Development Education.
- 3) Teacher graduates of CUEA need to engage in social, economical and environmental education in the community beyond the classroom so that they transmit ESD to the larger community for a more sustainable world.
- 4) The Faculty of Education should conduct research to establishing whether there could be a more appropriate method of teaching (teaching pedagogy) that could be developed to be employed in teacher education at the Faculty.
- 5) The university was advised to ensure that all infrastructures put up pay attention to issues of sustainable development.

- 6) The Faculty of Education should in service lecturers in other faculties who teach in CUEA and had not taken education course training. This will involve training them on pedagogy and in general the art of teaching.
- 7) Similar study should be carried out in the rest of the Faculties in CUEA and in other universities.
- 8) The Faculty of Education needs to transmit or share the research findings to the society and the ministry of education for utilization.
- 9) UNESCO should focus more on ESD sensitization, public awareness and education through establishing a portal and creating caucuses which would map ESD implementation in universities.

6.4 Suggestions for Further Studies

- 1) Similar research studies should be carried out in all institutions of teacher education to find out whether they are aware of ESD. Such studies would also raise awareness on ESD.
- 2) A study need conducted to establish whether curriculum development at KIE and other curriculum development bodies in the region considered ESD in their curriculum development.
- 3) A study should be carried out to find out the extent to which ESD education was offered to students in other areas of study other than education at CUEA and other universities.
- 4) A study should be carried out to establish sustainable development challenges facing the countries that the students who study in CUEA hail from.

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APPENDICES

Appendix I A: Introductory Remarks

RESEARCH TITLE: AN INVESTIGATION INTO AWARENESS ABOUT EDUCATION FOR SUSTAINABLE DEVELOPMENT (ESD): A STUDY OF THE FACULTY OF EDUCATION AT THE CATHOLIC UNIVERSITY OF EASTERN AFRICA (CUEA)
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Date: _____

INTRODUCTION

My Name is Kinyanjui Nicholas Mwaura. I am finalist Master of Education (Administration and Planning) Student at the Catholic University of Eastern Africa (CUEA). I am conducting my Academic Research which is a partial fulfillment of the requirement of this Course. CUEA has permitted me to carry out this Research awaiting the Ministry of Education (MOE) Kenya permit. I would like to get your opinions. I will treat your personal details confidentially. Your honesty is both critical and paramount when you respond to the questionnaires.

Yours faithfully

Kinyanjui Nicholas Mwaura MED/075/05/06.

Appendix 1 B: Definition of Education for Sustainable Development

My dear respondent, this research is centered on Education for Sustainable Development (ESD). Education for Sustainable Development is education that is conscious of utilizing resources for the benefit of the people living today while conserving them for the future generation. It address all spheres of life: economic, environment, emerging challenges like HIV/AIDS, gender issues, war and peace, democracy and human rights among others. ESD

believes that education should be relevant to the needs of the immediate society and the classroom is the avenue to achieving sustainable development because students pass through here before they join public and private life. It is the teacher who instills ESD knowledge and skills to these students. It pays attention to issues of protecting, conserving and keeping sound our world, harmonious coexistences among human beings and the biosphere and consciousness in all human engagement. It is consciously modeled to equip learners with skills and knowledge to face the challenges of daily life in a sustainable and safe way. ESD aims at using education as an avenue to making human life better and in a sustainable way.

Appendix II: Questionnaire for the Student

A)

1) Does CUEA offer education in?

A) Peace: Yes () No ()

B) Environment: Yes () No ()

C) Development: Yes () No ()

D) Entrepreneurship: Yes () No ()

E) Information Communication Technology (ICT): Yes () No ()

F) HIV/AIDS education: Yes () No ()

2) What is your overall judgment and suggestions on the Faculty of Education coverage on the issues in 1 above and the relevance of those issues to teacher training_____

3) Is what you learn in CUEA applicable in your life situation? Yes () No ()

Please give reasons_____

4) Does the education you acquire in CUEA help you to understand your job world and your universe? Yes () No () Please explain why you agree or disagree_____

5) What is your opinion on ethical studies offered in the Faculty of Education CUEA in relation to: Your personal life_____ your teaching career_____

B)

1) List the community based activities carried out by the students in the Faculty of Education in serving the community_____

2) List community based activities that you think the student teachers should get

involved in other than the ones mentioned above to help the community address sustainability challenges _____

3) What is the role of a student teacher in relation to society and

- a) Environment _____
- b) Morality _____
- c) Civic education _____
- d) Politics _____
- e) Economy _____
- f) Instilling patriotism _____
- g) HIV/AIDS _____

C)

1. What are some of the problems facing your country of origin? (Please give the name of the country). _____
2. What areas do you think the Faculty of Education should conduct research on to help meet the needs or find solution to problems mentioned above? _____
3. What role can the research project you intend to conduct play to provide sustainable solution to the problems you have highlighted above? _____

4) What is or will the title of your research project? _____

5) Make suggestions on the role of Research in enhancing Education for Sustainable _____

D)

1) How in your view can CUEA address issues in education under the themes listed below?

- a) Peace _____
- b) Poverty eradication and development _____
- c) Democracy _____
- d) Social Justice and equity _____
- e) Human Rights _____
- f) Science and Technology _____

- g) Education for all (EFA) _____
- h) Education Technology and Information Communication Technology _____
- i) Environmental conservation _____
- j) HIV/AIDS _____
- 2) What in your opinion are some vital courses to the teacher trainee that CUEA does not offer yet you think they are necessary? _____
- 3) Give reasons why you think the courses you have listed above are essential _____

Appendix III: Interview Guide Questions for Lecturers

Appendix III A: Introductory Remarks

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Interview Guide Questions for Lecturers

1. Have you taken any course on Education for Sustainable Development (ESD?)

Yes () No ()

2. Was the ESD course facilitated by:

The Faculty of Education () Self initiative () Other () please explain _____

3. How relevant is the research you supervise (conducted by your student) in relation to contextual problems? _____

4. Cite some problem-solving researches undertaken by your student(s) you have supervised _____

5. In coming up with infrastructure (buildings in particular) do you think that CUEA

considers issues of sustainability e.g. environmental safety, low light consumption, water consumption and waste management etc. _____

6. What pedagogy (principles, methods and activities of instruction) do you use while lecturing in CUEA? _____

What inspired the choice of this pedagogy (the why of the pedagogy)? _____

7. Have you heard of Mainstreaming Environmental and Sustainability into African Universities (MESA) partnership? Yes () No ()

If “yes” how do you think its vision is practiced in CUEA? _____

8. Have you heard of Global Higher Education for Sustainable Development Partnership (GHESP) Initiative? Yes () No ()

9. What do you think is the role of a university don in the community? _____

10. What role do you think the graduates you release to the job market every year should play in enhancing sustainable development in their areas of influence? _____

11. What do you think is the role of the Faculty of Education in Africa in relation to providing education that would assure sustainable development? _____

12. How often do you engage in community service? Once a semester () once in an academic year () other _____ Please explain _____

13. How often do you organize activities that involve students in community engagement (service)? Once in a semester () twice in a semester () other () please explain _____

14. What are some of the activities that you think students can engage in to enhance education for sustainability and sustainability in the society? _____

15) What are some courses that are relevant to sustainable development that you would want to be included among the courses offered by the Faculty of Education to enhance to help prepare teacher students in enhancing sustainable

16) development? _____