

**AN EVALUATION OF ENVIRONMENTAL EDUCATION
METHODS IMPLEMENTED AMONG REFUGEES AT
KALA REFUGEE CAMP, KAWAMBWA.**

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By

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degree of the Master of Education, Environmental Education.

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Lusaka

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Declaration

I, Jethrow Chipili, here by declare that this dissertation represents my own work, and that it has not previously been submitted for a degree at this or another university.

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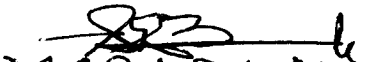
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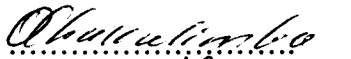
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Abstract

Environmental stability and sustainability are pre-requisites for development. As a result recent times have seen a rise in investment, both in terms of financial and human resources, in the management of the environment by many governments around the world. It is, however, not possible to talk about environmental sustainability without talking about Environmental Education (EE). Environmental Education is a key component in ensuring the sustainable management of the environment.

Environmental Education is also very essential in relief operations. Refugee operations are a good example of such relief operations that need integration of Environmental Education. In Zambia, World Vision Zambia (WVZ) an international Non- Governmental Organization in 2001 took up the task to provide EE to refugees at two refugee camps, namely, Mwange camp in Mporokoso and Kala camp in Kawambwa district.

This study focused on evaluating the Environmental Education methods that were being implemented among refugees at Kala camp by World Vision Zambia through its Agriculture and Natural Resources sector. The study was undertaken because of the realization that if the environment on which the refugees solely depended for their resources is destroyed, it would result into a potential area of conflict as the refugees might start encroaching on land for the locals to get their much-needed resources. There were various methods that were employed in the collection of data for the study. Data collection methods included the use of observations, both participant and non-participant and interview schedules (questionnaires). Data was also collected from focus group discussions as well as from the review of literature related to the study.

The term environment in the study was looked at as meaning every thing that surrounds man/woman including the natural, economic as well as social and political, and their interrelationships and therefore when talking about the environment at Kala; it is within this context that this study does so. The study endeavors to give a distinction between education which is usually understood to mean the lifelong process that an individual goes through to learn new ideas and EE which is understood to be the multidisciplinary education that incorporates various fields to enable the learner acquire new awareness and concern for the planet needed to protect and improve the environment. The study describes EE for refugees as being a special component of any refugee relief operation. The state of the art on educating refugees was that at Kala camp, there were several EE methods that were being employed by WVZ to educate the refugees about the environment. These methods were; field based EE, use of billboards around the camp, workshops and seminars and the use of demonstrations.

The main findings of the evaluation are that there was a rise in the number of refugees who had become aware of environmental issues. However, the rise was not significant as most of the respondents showed lack of interest in environmental issues. The respondents did not take environmental issues as a matter of priority. Culture was also identified as a major barrier to the participation of many refugees in the EE process. There was a lack of programs targeted at the youths who were not in school although they were in the majority compared to those that were in school.

The study makes some recommendations on the additional EE methods that could be employed at the camp to increase participation levels and raise awareness levels among the refugees. Recommendations made in light of the findings of the evaluation are that the use of role-playing could be used to increase awareness and using video shows on environmental issues to stir interest in matters of the environment. Other recommendations made were, the introduction of a monthly/quarterly magazine on the environment and extension of field-based EE to other sectors other than the agriculture sector.

DEDICATION

This dissertation is dedicated to my wife Chinyama and my parents Robinson and Godfridah Chipili.

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TABLE OF CONTENTS

Title.....i

Declaration..... ii

Certificate of Approval..... iii

Abstract..... iv

Dedication..... v

Acknowledgements.....vi

List of Tables.....vii

List of figures and Plates.....viii

List of Abbreviations..... ix

CHAPTER ONE: INTRODUCTION.....1

1.1 Background Information..... 1

1.2 The Zambia Initiative Project.....4

1.3 Refugees and the Environment..... 6

1.4Statement of the Problem..... 7

1.4.1Specific Research Questions.....7

1.5Purpose of the Study.....7

1.6 Objectives of the Study..... 7

1.7 Significance of the Study.....8

1.8 Structure of Dissertation.....8

CHAPTER TWO: THE ROLE OF ENVIRONMENTAL EDUCATION IN ADDRESSING THE PLIGHT OF REFUGEES..... 10

2.1 Understanding Environmental Education.....10

2.1.1 Education.....10

2.1.2Environment.....13

2.1.3 Environmental Education..... 16

2.2 Importance of Environmental Education.....19

2.3 Environmental Education for Refugees.....21

CHAPTER THREE: LITERATURE REVIEW.....27

3.1 Lessons From Implementing EE in Refugee camps.....27

3.2 Efforts Towards Awareness Raising About EE in Refugee Camps.....31

3.3 Context-Specific Environmental Education Methods in Refugee Settings.....	34
CHAPTER FOUR: RESEARCH METHODOLOGY.....	37
4.1 Data collection methods.....	37
4.2 Choice of the study area.....	38
4.3 Sources of data.....	38
4.3.1 Secondary data.....	39
4.3.2 Primary data.....	40
CHAPTER FIVE: ENVIRONMENTAL EDUCATION AT KALA CAMP.....	42
5.1 Description and location of Kala camp.....	42
5.2 Environmental issues at Kala camp.....	45
5.3 State of the environment at Kala	51
CHAPTER SIX: PRESENTATION AND ANALYSIS OF RESULTS.....	58
6.1 Data from Respondents.....	58
6.1.1 Demographic Data.....	58
6.1.2 Level of Education.....	59
6.1.3 Perceived Problems	61
6.1.4 Economic Activities.....	63
6.1.5 Environmental Awareness.....	64
6.2 Data from Key Informants.....	70
6.2.1 Establishment of 'mazingira'.....	72
6.2.2 Coordination with other Implementing Partners.....	72
6.2.3 Environmental Education in the Agriculture Sector.....	73
6.2.4 Refugee Participation.....	74
6.2.5 Eco-clubs.....	75
6.3 Problems and Barriers.....	76
CHAPTER SEVEN: SUMMARY CONCLUSION AND RECOMMENDATIONS..	79
7.1 Summary of Findings.....	79
7.2 Conclusion	81
7.3 Recommendations.....	83
REFERENCES.....	86
APPENDICES.....	90

List of Figures Tables and Plates

Fig 1. Different types of Environments at Kala.....	14
Fig 2. Respondent's Year of Arrival by years.....	59
Fig 3. Respondent's level of Education.....	60
Fig 4. Problems Perceived by Respondent's of Kala Refugee Camp.....	61
Fig 5. Economic Activities of Respondents.....	63
Fig 6. Environmental Activities Known to Respondents.....	65
Fig 7. Respondent's Reasons for not participating in EE Programs.....	66
Fig 8. Respondent's suggestions for Improving EE.....	67
Fig 9. Attendance of EE Meetings by respondent's of Kala camp.....	69
Fig 10. Agriculture Sector Beneficiaries in Kala Refugee Camp by Years.....	73

List of Tables

Table 1. Refugee Distribution.....	3
Table 2. Common tree Species around Kala Camp.....	43
Table 3 Trees Rose at Kala Forestry Nursery in 2004.....	47

List of Plates

Plate 1. Map showing the Location of Kala Camp.....	43
Plate 2. Environmental Education at Kala during World Refugee Day Celebrations (2005).....	53
Plate 3. Field Based EE at Kala.....	55

Appendices

Appendix I. Refugee Questionnaire	90
Appendix II Key Informants Interview Guide.....	92
Appendix III Key Informants Interview Guide.....	93
Appendix IV Spontaneous Voluntary Declaration Form.....	94

LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
ANR	Agriculture and Natural Resources Sector
DRC	Democratic Republic of Congo
EAL	Environmental Action Learning
HIV/AIDS	Human Immune Virus/ Acquired Immune Deficiency Syndrome
IP's	Implementing Partners
NGO	Non- Governmental Organisation
O.A.U	Organization of African Unity
SAFIRE	Southern Alliance for Indigenous Resources
U.N	United Nations
UNEP	United Nations Environmental Programme
UNESCO	United Nations Education and Scientific Council
UNESCO-PEER	United Nations Education and Scientific Council-Programme for Education in Emergencies and Reconstruction
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commission for Refugees
WVI	World Vision International
WWF	World Wide Fund for Nature
WVZ	World Vision Zambia
ZIP	Zambia Initiative Project
ZNS	Zambia National Service

CHAPTER ONE

INTRODUCTION

1.1 Background Information.

Rogge (1999) points out that involuntary migration of people, either as individuals or in groups, is the oldest form of human migration. He further points out that throughout history, the push factors that have produced migration have ranged from environmental deterioration-often as a consequence of over population-to a wide array of natural catastrophes and consequences of peoples inhumanity to fellow human beings expressed in such things as wars, state persecution of individuals or groups or intolerance of one part of society to another. Slater (1991) noted that migrations undertaken primarily for economic gain and the mass migration of people from the countryside to the city are in comparison a recent phenomenon.

Over time as the number of people seeking asylum continued to increase due to an increase in the number of conflicts in different countries, the United Nations (UN) held a convention in 1951 on the status of refugees. At this convention, a refugee was defined as “someone who is outside his or her country of origin, has some well-founded fear of persecution because of his/her race, religion, nationality, or membership to a particular social group or political opinion”. The same definition says that a refugee is one who is unable or unwilling to avail him/herself of the protection of his or her country or to return there for fear of persecution (Harkovirta, 1996 P.55).

In 1969 the Organisation of African Unity (OAU) put forward this definition,

Any persons compelled to leave their country ...owing to external aggression, occupation, foreign domination or events seriously disturbing public order in either part or in the whole country of origin or nationality (Melander and Noble 1978, p. 74).

These definitions mean that refugees are persons fleeing civil disturbance, widespread violence and are entitled to claim refugee status in countries that are party to both the United Nations or OAU conventions. Such persons are so characterized whether they have a well-founded fear of persecution or not. Zambia is a party to both the UN and

OAU conventions, which it ratified in 1969. As a result, the country has hosted refugees from neighboring countries starting from those who were fleeing from liberation wars to those fleeing from civil wars.

Mutebi (2004) identified several reasons that led to people fleeing their home countries and going to seek asylum elsewhere. He notes that apart from war, people flee in reaction to deteriorating environments and economic conditions, destruction of property and loss of kin or livestock. According to the United Nations High Commission for Refugees (UNHCR), (2003) in 2002, Africa alone had 4,593 200 refugees spread across the continent in different countries of asylum of which Zambia was among the countries with huge numbers of refugees.

It is important to note the difference between Refugees, asylum seekers, Migrants and Internally displaced persons. Asylum seekers are persons who have not yet been given refugee status by the government of the new country where they have fled to for fear of persecution in their own country. They are waiting for the government to make a decision about them. Unlike refugees and asylum seekers, internally displaced persons do not leave their countries although their lives are in danger. They are, therefore, not protected by the international laws. Migrants, on the other hand, leave their home countries but for different reasons, usually to find a better life for their families. The lives of migrants are not in danger and they are sometimes called economic migrants. The definition of a refugee has already been given in paragraph one.

The UNHCR takes care of the welfare of refugees and asylum seekers in the country of asylum. They work hand in hand with the government in the country of asylum to give protection, aid and relief to the refugees. In addition, the UNHCR also works with other Implementing Partners (IP's) which are normally Non-Governmental Organizations providing various forms of assistance to the refugees. It is also the duty of the UNHCR to provide Environmental guidelines before the refugee camp is established and even afterwards. According to the UNHCR (2004), although not specifically covered by its mandate, UNHCR has been asked by the UN Secretary-General to help internally

displaced people whose numbers have risen dramatically since the end of the cold war due to the increase in the number of ethnic and civil wars around the world.

According to the UNHCR (2004) the main and most important responsibility of the UN organ known as ‘International Protection’ is to ensure respect for basic human rights of refugees. This includes the refugee’s ability to seek asylum and to ensure that no refugee is returned involuntarily to a country where he/she has reasons to fear persecution. The organization promotes international refugee agreements, monitors government compliance with international law and provides material assistance such as food, water, shelter and medical care to fleeing civilians.

Closely related to its role of international protection, the UNHCR seeks long-term solutions for refugees in three main areas: voluntary repatriation, integration in countries where they first sought asylum or resettlement in a third country of asylum. According to the UNHCR Refugee Count (2003), it is also the work of the UNHCR to keep count of refugees in all parts of the world.

Table 1 shows the global distribution of refugees between 2002 and 2003.

Table 1. *Refugee Distributions: 2002-2003*

	JAN 2002	JAN 2003
Asia	8,820 700	9,378 900
Africa	4,152 300	4,593 200
Europe	4,855 400	4, 403 900
North-America	1,086 800	1,061 200
Latin America	765 400	1, 050 300
Oceania	81 300	62 200

Source: Refugees by numbers; UNHCR (2003)

One important role that is played by the UNHCR is to help in the search for durable solutions to the refugee problem. It is because of the aforesaid reason that the UNHCR plays a vital role when it comes to voluntary repatriation of the refugees to their country of origin. When this time comes, the agency provides transport and other logistics

necessary while working in conjunction with the governments in the country of asylum and also in the country of origin. UNHCR also helps in the event of local integration of refugees. This, according to Slater (1991), is by far the most commonly adopted solution to the refugee crisis in African asylum states. African asylum states are among the worlds' poorest nations and, consequently, few resources are available for diversion to refugees. The sooner refugees become self-reliant the lighter the burdens imposed on the asylum country. According to Rogge (1991), given the levels of poverty, the support provided by African asylum states has been exceptionally generous. This is especially the case in countries that have had very large long-term influxes such as Zambia, Tanzania and Sudan.

1.2 The Zambia Initiative Project (ZIP)

The UNHCR operational presence in Zambia was first established in 1967 as Zambia began to face what was to become a virtually unbroken exodus of refugees from colonialism, racist oppression, occupation and repression in Angola, Namibia, South Africa and Zimbabwe. Even after these territories had gained independence and freedom and thousands of refugees could return home, the refugee load for Zambia has throughout these years been characterized by increasing numbers. This study makes a difference between a refugee settlement and a refugee camp. A refugee settlement has permanent structures and cultivation plots while a camp has temporal structures due to its transitional nature. The two terms are however sometimes used interchangeably. The following are the refugee camps/settlements that are currently operational in Zambia; Maheba refugee settlement, which is located near Solwezi in the North-Western Province and was opened in 1971, Mayukwayukwa refugee settlement established in 1966 and is located in Kaoma district of Western Province and Nangweshi refugee camp located in Senanga district of the Western Province, which was established in 2000. Others are Mwange refugee camp located in Mporokoso district in the Northern Province of Zambia, which was established in 1999. Kala refugee camp located in Kawambwa district of Luapula Province was the study area for this investigation. It was opened in 2000. Ukwimi refugee camp is located in Petauke district of the Eastern province of Zambia.

The refugees currently in Zambia are mostly from The Democratic Republic of Congo (Congo DR), Rwanda and Angola. The UNHCR takes care of the welfare of these refugees and works hand in hand with the Government of the Republic of Zambia through the Ministry of Home Affairs. The government, through the office of the Commissioner for Refugees in the Ministry of Home Affairs, works not only with the UNHCR but also with other Implementing Partners. This corporation has recently seen the birth of the Zambia Initiative Project, which is a project led by the Zambian Government and facilitated by UNHCR to provide meaningful assistance to refugee hosting communities within Zambia. According to UNHCR (2004) this project is being implemented in the refugee hosting areas of Western Province. The project, by soliciting for additional development funds for durable solutions through local integration, seeks to improve the quality of life and self-reliance of the refugees. This is to be achieved along with improvements in the quality of life and poverty reduction in the host communities. This is in line with what Slater (1991) observed when she pointed out that in most cases African asylum states have tried to introduce development-oriented assistance programs for refugees. In the Zambia Initiative Project, land has been provided either through agricultural grants for organized agricultural settlements or by local chiefs for spontaneously settled refugees. Refugees have been encouraged to produce food and take care of their needs as quickly as possible, as well as to contribute to the local economy through the sale of surplus produce or labour.

The UNHCR (2004) names the United States of America, Denmark, and Sweden as the main donors who provided US\$ 14 Million to the Zambia Initiative Project directly or bilaterally through the government. This Project, which helps to address developmental needs related to refugee hosting communities in recognition of Zambia's hospitality to refugees, does not cater for refugee hosting communities outside Western Province due to lack of funding. This means that Kala camp, the study area of this research is not covered by this project and this translates into having very limited resources for projects in the camp.

1.3 Refugees and the Environment

According to Hall and Handson (1992) the growing number of refugees is already an indication of the severity of global environmental decline. Inter Africa Net work for Human Rights and Development (AFRONET), (2001) points out that Article 24 of the African Charter on Human and People's Rights (AFCHPR) states that people have the right to a general satisfactory environment favorable to their development. This means that refugees have the right to live in an ecologically sustainable environment.

The objective of UNHCR is to protect and assist the refugees in their effort to manage the environment sustainably and maintain the productivity of the natural resource base. This, in turn, creates conditions for UNHCR and its Implementing Partners to fulfill their mandate effectively. The UNHCR (1999) points out that while environmental change is occurring everywhere refugee influx, however, can accelerate an on going process of environmental change. This is due to the following reasons;

- Disproportionately high population densities which may far exceed the carrying capacity of its surrounding,
- Lack of motivation for sound natural resource management by the refugees and
- Location of camps in environmentally fragile areas and the unpredictable nature of refugee situations, which often does not allow time for environmental assessment and makes timely planning and implementation of protection measures very difficult (UNHCR, 1999).

The food rations that are given to refugees are usually not enough to meet all their nutritional requirements and so refugees are usually encouraged to engage in subsistence agriculture as a safety net. In most cases, however, refugees find themselves in uncertain agrarian environments, which are different from their countries of origin. They may also be settled in areas that are already environmentally vulnerable to any form of agricultural practice. In general, farming as a livelihood strategy is more important for refugees just as it is for host communities and, therefore, it matters a lot as to what type of environment the refugees are settled in.

1.4 Statement of the Problem

If not handled well, the refugee crisis could have spill over effects on host communities, the environment and society at large. Lack of proper environmental awareness among the refugees can lead to rapid deterioration of the environment in the refugee camp, which may lead to the refugees resorting to carrying out their activities in the outlying areas and, thereby, clashing with the locals. The livelihood of the refugees is mainly dependant on activities that have to do with the exploitation of the environment. Environmental Education (EE), therefore, must play an important role to ensure ecological sustainability. At Kala refugee camp, however, the World Vision report of 2004 indicated that there was lack of proper environmental management skills among the refugees in spite of their EE efforts. This seems to suggest that the EE methods that were being implemented at the camp were not as effective as they ought to be and there is need to find out why. This was the general research problem that the study was designed to investigate.

1.5 Purpose of the Study

The purpose of the study was to make an evaluation of the methods of Environmental Education that were being employed at Kala refugee camp by World Vision Zambia with a view to proposing new approaches which would engage the refugees more actively in the learning process than before.

1.6 Specific objectives of the Study

1. To find out what Environmental Education methods were being employed by World Vision Zambia at the camp.
2. To find out what the positive and negative impacts of these methods had been by the time of the study.
3. Assess the possibility of proposing additional Environmental Education approaches at the camp.

1.6.1 Specific Research Questions

The study addressed the following specific research questions;

1. What Environmental Education methods were being used by WVZ at the time of the research to educate refugees about the environment?

2. What were the positive and negative dimensions of the Environmental Education methods that WVZ was using?
3. Was there room for additional Environmental Education methods to be proposed at Kala camp?

1.7 Significance of the Study

This study may provide vital information concerning various methods of Environmental Education that were being implemented among the refugees at Kala camp. The study also assessed the impact of these methods and suggests additional Environmental Education methods, which may prove to be effective in raising the levels of environmental awareness among refugees at Kala camp, and other camps where they may be implemented. The study may in this way help WVZ to put the educational situation relevant to the refugee problem into its proper context. Other Implementing Partners involved in Environmental Education in other camps may make use of the methods that have been suggested.

1.8 Structure of Dissertation

This dissertation has six chapters discussing the topic under study and integrating information from different sources. Chapter one has given an overview of the study and states the problem under study. This chapter brings out the role of the UNHCR regarding the welfare of refugees. It also highlights the roles played by the host nations and other implementing partners in trying to find durable solutions to the refugee problem.

Chapter Two looks at Environmental Education in general, Environmental Education for refugees and Environmental education for refugees at Kala camp. The chapter identifies the gaps, weaknesses, limitations and strengths of EE at each of the above named level.

Chapter Three deals with review of literature on topics related to the investigation. The findings in these studies are highlighted while comparing them to what was obtaining in the study area so that similarities and differences are clearly brought out.

The fourth chapter deals with a description of the methodology that was used in the data collection process of the study. It gives the research design, sampling procedures and data collection methods in the study. The chapter also gives the method of analysis that was employed by the study as well as the limitations of the study

Chapter Five is dedicated to EE at Kala refugee camp. It describes such things as, the location of the camp, history of the camp as well as the population of the camp and environmental concerns in the camp.

Chapter Six is dedicated to the presentation and analysis of the results. Results from key informants, refugee questionnaires, focus group discussions and data from records are presented and analyzed in this chapter.

Chapter Seven gives a summary of the major findings. It also gives the conclusion of the study as well as making some recommendations on additional EE methods that could be employed at the camp in order to increase awareness among the refugees on environmental issues. The chapter also makes suggestions for future studies on related topics

CHAPTER TWO

THE ROLE OF ENVIRONMENTAL EDUCATION IN ADDRESSING THE PLIGHT OF REFUGEES

The field of Environmental Education is still new in Zambia, as compared to other countries. The tradition in Zambia has been to study ‘environmental science’. Many teachers and practitioners are, therefore, more familiar with ‘environmental science’ than ‘environmental education’ per se. In this regard, every effort must be made each time to describe the field of EE for the readers to appreciate its role. This chapter, therefore, describes the energizing principles and characteristics of EE from a historical angle so that readers can hopefully, appreciate its mandate. The chapter is not a review of literature on EE as this is presented in chapter 3.

2.1 Understanding Environmental Education

Recent times have seen a rise in awareness about issues of “sustainable development” as well as some extensive politicization and institutionalization of environmental issues on a global scale. An example of this concerted concern at a global level is the recent G8 summit (2005) held in Scotland where environmental issues, particularly the issue of global warming, featured prominently.

Part of the result of this global awareness has been innumerable initiatives and efforts at many levels in many countries aimed at mainstreaming environment and sustainability issues, which include the internalization of knowledge, practices, strategies and institutions to understand and predict environmental education better as well as to arrest environmental decline and degradation. In Zambia, one good example of awareness raising in favour of the environment among the Judiciary was reported in the following newspaper caption during the official opening of a two-day environmental law workshop for judges by the Chief Justice, ‘issues of safeguarding the environment had become not only of national but also of international importance and that this called for the need to

enlighten people on the dangers of activities that tend to degrade the environment’ (Likando, 2005 P.3).

In all these approaches Environmental Education is cardinal. It plays a significant role in environmental sustainability. This chapter therefore looks at the role, which Environmental Education can play in addressing the plight of refugees around the world. It does so by, first, seeking a clear understanding of the term ‘Environmental Education’ and, thereafter, spelling out how it can help ease environmental problems and issues related to refugee settings.

2.1.1 *Education*

EE is a combination of two important words, which usually stand alone in ordinary life these are “Environment” and “Education”. Therefore to understand what EE is, we need to define these two terms separately before we can bring them back together in an attempt to appreciate the nature of EE.

Education is conventionally understood to be a vehicle for the induction of learners into society, teaching them a selection of the knowledge that a given society has developed, as well as imparting of skills that will help them make a living. Education also promotes values, which uphold society in the form in which they find it. Some of the values, which are promoted as a result of education, include the understanding of civic responsibilities by members of society, greater awareness levels on a number of issues, such as nutritional status and high alertness to new ideas. Education is a term that is usually used loosely without paying attention to its meaning. According to UNESCO (1976), education is taken to comprise **organized** and **sustained communication** designed to bring about **learning**. As used above, Communication requires a relationship between two or more persons involving the transfer of information. The word ‘organized’ is intended to mean a planned pattern or sequence with established aims or curricular. Being ‘organized’ also involves an actual agency, which organizes the learning situation as well as teachers who are employed to consciously organize the learning. The term ‘sustained’ is intended to mean that the learning experience has the elements of duration and

continuity. The idea of 'Learning' refers to any change in behavior, information, knowledge, understanding, attitudes, skills or capabilities which can be retained and which cannot be ascribed to physical growth or to the development of inherited behavioral patterns. In this understanding, all education involves the learning of one form or the other.

Kelly (1999), notes that education is not the same as schooling but that, education is a life long process that could be conducted by many agencies. He argues that education has many meanings. It could refer to a system or institution (e.g. school system) or to a certain activity being undertaken ("education is the action exercised by the adult generation on those who are not ready for social life") Kelly (1999).

Further more it is important to make distinctions between the different types of education, namely, formal education, non- formal education and informal education. Formal education according to Kelly (1999) is the organized hierarchically structured, chronologically graded system that runs from primary or nursery to university or any form of tertiary education. Non-formal education, on the other hand, is any form of organized education outside the established formal system that is intended to serve identified learning clienteles and learning objectives. Informal education is different from the above two types of education as it refers to the lifelong process whereby individuals acquire attitudes, values, skills, and knowledge from daily experience according to what is provided in one's environment.

Education should promote knowledge (learning to understand); know how (learning to do); wisdom (learning to set priorities) and character formation (learning to cooperate, preserve and become a respectable member of the society). All schools should provide opportunities for students to grow in these four areas (Kelly, 1999).

Having defined education, it is also important to point out that education is a basic human right enshrined in the United Nations Universal Declaration of Human Rights Article 26

where it is stated that every one has the right to education (Kelly 2001). This is further amplified by UNESCO (1976) who give reasons why education needs to be a human right. They state that education should be a right because it leads to individual creativity, improved participation in the social, economic, cultural and political life of society and thus a more effective contribution to human development. Education is also a pre-requisite, not only for the exercise of the full individual's rights, but also for understanding and respecting the rights of others.

Kelly (2001), however, points out that in a global sense, the right to learn unfortunately remains a vision rather than a reality although the demands on, and for, the educated people continue to grow. It remains to be seen what measures developing countries in particular will put in place to ensure that every one has access to education.

UNESCO (1991) points out that if attitudes such as hope, trust, respect and opportunism are nurtured in the early days of one's school life, they will lay foundations of personal development crucial for later life and for establishing positive attitudes to others. These attitudes are very important when it comes to the EE process as will be discussed in this study. Education has a vital role to play in helping human beings to improve their relationship and, indeed in contributing to the ultimate sustainability of the planet (UNESCO, 1999).

2.1.2 *Environment*

Environment can be said to refer to the surrounding in which we find the atmosphere, biosphere, lithosphere, and hydrosphere. This is a widely used definition, which, however, only refers to the natural environment. Environment can be said to comprise different components, or it can be said that these are different ways of classifying the environment. One such classification of environment involves the Natural environment, Social environment and the Personal environment.

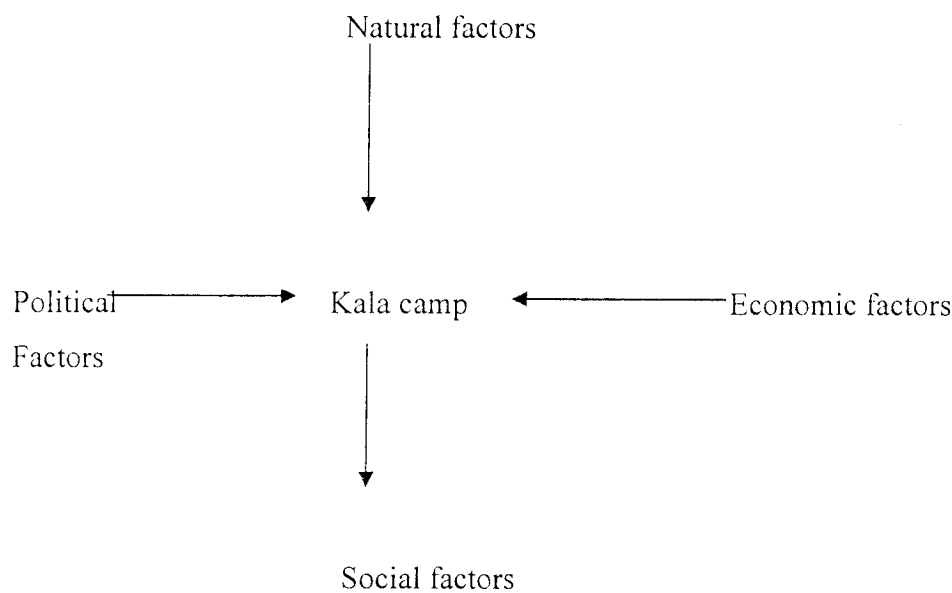
According to the Department of Education (1993) the social environment is composed of the humans, human created world involving things like culture, politics, buildings,

government, and economics and so on. The personal environment refers to the way one thinks, feels, and is. It is each individual's unique, physical, intellectual, emotional, spiritual and ethical self. The natural environment refers to Lithosphere, hydrosphere, atmosphere and all that is contained therein. The environment therefore refers to everything around human beings in the world in which they live.

Environment is a very broad term that challenges modern knowledge and all its institutions of knowledge that is, academic disciplines, research groups, syllabuses and textbooks as well as professions, data banks and media experts. It is almost impossible to draw a line and say this is an environmental issue because environment has its presence in almost all the disciplines.

In contextualizing the broader definition of 'environment' cited above, Figure 1 below shows the different types of environments at Kala refugee camp which the refugees interact with:

Fig 1. Different types of environments at Kala Camp.



Using Figure 1, the political environment of the refugees is illustrated by the new political climate in which they have found themselves in the country of asylum. The refugees have to make a lot of adjustments to fit in the new political environment of Zambia, in this case. For example, they are not allowed to take part in partisan politics in the country of asylum no matter how they feel about certain issues. They are also not allowed to vote in the event of an election, neither are they allowed to form any political groupings among themselves in the camp. The political environment, therefore, refers to many political issues too numerous to exhaust which are impacting on refugees in the refugee camps and settlements.

The social environment in the refugee camp is exemplified by the type of social life of the refugees themselves in the camp including, for instance, religious groupings. It refers to issues of culture and other related phenomena like buildings, farms, issues of education in the camp, and so on.

The Natural environment in the refugee camp may refer to the physical surrounding and all that is contained therein. It refers to the forests, soils, rivers, land, grass, flowers and the atmosphere. It is upon this environment that refugee survival activities are centered. A lot of caution has to be taken when dealing with the natural environment so that the refugees do not create any imbalances in the ecosystems of Kala camp. If not checked, refugee activities in the natural environment can temper with the ecological integrity of the camp and its surroundings.

The economic environment of Kala refugee camp refers, for instance, to the activities that refugees engage in to ensure their survival and to supplement whatever items people donate to them. It also refers to the income generating activities that the refugees decide to take up in order to look after themselves and their families.

All the above types of environments are important and are inter-related. For example, certain political decisions (political environment), may hinder refugees from looking for full time employment (economic environment) and thereby forcing them to farm on

marginal land (physical environment) consequently damaging the overall social environment of the camp. Section 3.2 provides another detailed dimension of environmental issues at Kala camp.

2.1.3 *Environmental Education*

Having defined ‘Education’ and ‘Environment’ separately, this section endeavors to define what Environmental Education (EE) is and also gives some of its aims and principles. This section also differentiates EE from ordinary education by spelling out the major differences between the two.

According to Van Rensburg (2005) Environmental Education is a label for a range of Educational processes and initiatives that may differ, at least to some extent, from the usual orientation of education. She gives reasons for the differences, which are important to note

Firstly, according to her, Environmental Education happens in a context of an urgent imperative for individuals and groups of people to act differently today towards the environment from how previous and, indeed, the current generations of people do. The notion of ‘ecological sustainability’ that EE aims to promote, for instance, draws us to start farming our land, boosting our economy and dealing with our garbage in a different way.

Secondly, developing durable solutions to complex environmental issues requires combined efforts from diverse ways of thinking about those issues-from ethical, experiential, ‘indigenous’ and scientific perspectives, for example. This means that when it comes to issues of the environment, we are all educators and learners and thus there is need to have an open mind when dealing with issues to do with the environment. When it comes to EE, therefore, all form of knowledge about the environment whether

traditional, modern, scientific, cultural or technological is important. Thirdly, in the light of the rapid technological and cultural change of our time the world of tomorrow, for which today's children are being educated, will feature socio-ecological issues beyond the imagination of today's educators and textbook writers. This implies that EE should always have an open approach to issues, leaving room for additional knowledge at any time as opposed to education, which usually follows a prescribed curriculum.

The above stated differences provide the main reasons why Van Rensburg (2005) differs with the World Conservation Strategy (IUCN/UNEP/WWF, 1980), when they suggest that EE is all about broadcasting messages of using litter bins or drilling learners with information about environmental problems in the hope that "whole societies will change their behavior". As outlined above, Van Rensburg (2005) shows that EE is more complex than the World Conservation Strategy's definition.

Both Mabunda (1998) and Van Rensburg (1994) agree that Environmental Education is participatory in nature. They further acknowledge that whether the context is helping school children to explore the local environment, or adults deciding on a resource use plan, Environmental Educators cannot assume that they and scientists have all the answers. Environmental Education is multidisciplinary in nature as it incorporates various fields of study, such as vocational studies, life sciences, physical science, earth science, mathematics, arts/humanities, communications and social studies.

The Intergovernmental conference held at Tbilisi in 1977 adopted guiding principles for EE.

According to these guiding principles EE should:

- Consider the environment in its totality-natural and built, technological and social (economical, political, cultural-historical, moral and aesthetic environment.)
- Be a continuous lifelong process, beginning at the pre-school level and continuing through all formal and non- formal stages;
- Be interdisciplinary in its approach, drawing on the specific context of each discipline in making possible a holistic and balanced perspective;

- Examine major environmental issues from local, national, regional and international points of view so that students receive insights into environmental conditions in other geographical areas;
- Focus on current and potential environmental situation while taking into account the historical perspective;
- Promote the value and necessity of local, national and international cooperation in the prevention and solution of environmental problems;
- Explicitly consider environmental aspects in plans for development and growth;
- Enable learners to have a role in planning their learning experiences and provide an opportunity for making decisions and accepting their consequences;
- Help learners discover the symptoms and real causes of environmental problems;
- Emphasize the complexity of environmental problems and thus need to develop critical thinking and problem-solving skills;
- Utilize diverse learning environments and a broad array of education approaches to teaching/ learning about and from the environment with due stress on practical activities and first experience.

Adopted from International NGO'S Forum (1992) Environmental Education for Sustainable Societies and Global Responsibilities, ICAE, Toronto

According to the Department of Education (1993) EE should provide the learners with the opportunity to acquire awareness of and concern for the planet and its people's the knowledge, skills, attitudes and values needed to protect and improve the environment. Environmental Education also enables the learners to acquire new patterns of behavior, including both personal lifestyle choices and informed social action that reflect this care.

Environmental education allows learners to explore a variety of environments, evaluate and reflect on these explorations and, ultimately, view environmental matters from a variety of perspectives (Department of Education, 1993). The International Council for Adult Education conference held in Rio de Janeiro in 1992 stressed that EE, whether formal or non-formal, seeks to promote the transformation and construction of society. Therefore EE is both personal and collective. It aims to develop local and global

citizenship with respect to self-determination and the sovereignty of nations. Environmental Education is not neutral but is value laden. It is an act of social transformation.

According to Kim le Roux (2001), Environmental Education helps develop ones ethical awareness of all forms of life with which humans share the planet, respect all life cycles and impose limits on humans' exploitation of other forms of life. EE is also important in the achievement of ecologically sustainable development.

Having outlined what EE is all about, the current researcher expected that the EE process at Kala camp would seek to raise environmental awareness among the refugees and instill a sense of environmental responsibility in all the refugees at the camp.

It has been outlined in this section that EE is far more rooted than it is sometimes taken to be, that is, it covers many disciplines which include Environmental Law, Environmental Economics, and Environmental Ethics and so on. Its various principles have also been outlined. It is also important to look at the importance of EE, which is what the next section discusses.

2.2 Importance of Environmental Education.

A number of scholars have stressed the importance of Environmental Education and they have clearly pointed out the place that it ought to occupy in society. These arguments have been advanced both for the formal and non-formal settings. This section looks at the value or importance of EE and why its role is so crucial globally, regionally and locally. In particular, ideas about the value of EE operations at Kala camp will be drawn from this sub-section by extension.

Gough (1997) and Lotz (1997) both accept that EE should be an integral part of the school curriculum and not simply a body of scientific facts to include in the learning areas for the physical and natural sciences. Similar forms of recognition had earlier on led UNESCO/UNED (1990) to introduce teacher education in environmental education as a 'priority of priorities'. EE should, according to Jans Van Rensburg (2005), be an integral

part of all informal settings as well. She argues that if managers in companies learned together about environmental issues resulting from their activities, they might be better placed to address those issues together.

Agenda 21, the main document reflecting the intentions of the United Nations Conference on Environment and Development (UNCED, 1992), dedicates a separate chapter (chapter 36) to the role of education as a global response to the environmental crisis (UNESCO-UNEP, 1992). There is a growing awareness of environmental problems in individual countries, which has led to calls for Environmental Education. Jans van Rensburg (2005) gives an example of South Africa where those who were involved in Environmental Education in the conservation agencies and organizations, schools and elsewhere came together to form the Environmental Education Association of Southern Africa (EEASA).

In Zambia, Environmental Educators have come together in the Zambia Network for Environmental Educators and Practitioners (ZANEED) to try and lobby for the inclusion and integration of EE in the national curriculum. A program was also being run on the state owned radio station in the year 2005 to discuss a wide range of environmental issues apart from sensitizing the citizenry on the critical role that EE plays.

In supporting the notion that EE plays a pivotal role in Environmental, Economic, Social and Cultural development Gupta (1998) notes that a better environment is possible only when backed by legislation, government machinery and public awareness and participation. He further points out that the nature and importance of EE requires participation at all levels to include national governments, provincial and local administrators, academics, the legal profession, the press, the business community and the local inhabitants because all these live in the era of ecological deprivation. In the same vein, Kim le Reux (2001) points out that EE should empower all peoples and promote opportunities for grass root democratic change and participation.

Environmental Education becomes particularly important because it values all forms of knowledge as pointed out earlier. This is so because knowledge is diverse, cumulative and socially produced and should not be patented or monopolized. The Department of Education (1993) point out that EE has direct experience at its core. It presents opportunities for experiences in a number of different environments. These experiences are sensory, aesthetic and practical and they are focused, progressive (each experience builds on the one before) and integrated with other learning activities both inside the classroom and beyond. By its very nature EE is an ongoing process in which pupils and teachers have a role to play. The above assertion led Lotz (1997) to believe that EE enables learners to participate as active and informed citizens in the development and maintenance of an ecologically sustainable, socially just and democratic society.

Arising from the above subsection, and with reference to Kala refugee camp, the inhabitants and environments of Kala camp can well see EE to be of direct and immediate help to them in innumerable ways. It would for instance improve ecological stability of the environment around the camp. EE would also ensure a higher productivity on the farm plots and gardens while maintaining sound agricultural practices that would ensure ecological integrity on these plots. EE would additionally help the refugees to appreciate the environment in which they live better than before.

2.3 Environmental Education for refugees

EE can be tailored to meet the needs of a particular group. It should further recover, recognize, respect, reflect, and utilize indigenous history and local culture, as well as promote cultural, linguistic and ecological diversity' (Kim le Roux, 2001). This makes EE among refugees to be potentially an interesting field of study as refugees come with a lot of knowledge about environmental issues from their countries of origin and, therefore, are good examples of learners and the learned. This section looks at the relevance of environmental education for refugees in general.

Environmental problems associated with refugees are sometimes the consequences of high refugee concentrations occurring rapidly. In the absence of mitigating measures, the

UNHCR (1996) points out that physical deterioration of the surrounding environment soon takes place, in turn generating other impacts on the refugees and the local people. Such a situation can be a vicious circle. The UNHCR (1994) acknowledges that refugees take with them to the host nation from their country of origin a lot of knowledge about the environment. This may be in form of indigenous knowledge. This, in turn, implies that environmental education programs should not view refugees as passive recipients of assistance or knowledge. Rather, more emphasis should be placed on the positive contributions that refugees can make in the host country, including in the EE process. Refugees can both be agents of negative environmental change or a force of positive environmental change depending on the approach that is taken to address their situation. This study wishes to promote the latter aspect by carefully tackling the former where it exists. Refugees may already be familiar with environmentally sound practices in agriculture or natural resource management, for example. In this case, the potential that the refugees pose is supposed to be exploited for the benefit of environmental sustainability (refugees are both learners and learned).

The UNHCR training module of 1999 points out that, whereas environmental change is occurring everywhere at all times, 'a refugee influx, how ever, can often accelerate an on-going process for a number of reasons' (UNHCR, 1999, p.5). Some of the reasons include lack of motivation for sound natural resource management by the refugees (e.g. lack of access to land and natural resources may lead to exploitative behavior); refugee influxes, camps and settlements tending to be located in marginal and environmentally fragile areas, the unpredictable nature of refugee situations which often does not allow time for environmental assessment and makes timely planning and implementation of protection measures difficult, and unfamiliar conditions leading to environmentally harmful coping mechanisms. Further more, traditional ways of using the environment, which may be well adapted to the ecosystem at home, might be inappropriate in the new situation.

This implies that more often than not, refugee situations introduce or accelerate change processes in the host environment, thereby making Environmental Education an imperatively important tool in addressing such change.

Southern alliance for Indigenous Resources (SAFIRE), (2001) notes that, in many cases, refugee-related impacts are impossible to avoid altogether owing to the unusual circumstances under which an influx occurs. Efforts therefore, to mitigate or prevent environmental degradation are a key component and co-requisite of any strategy to assist and protect refugees. EE, therefore, becomes handy in this regard.

In line with Jan van Rensburg (1999), Environmental Education should be taught in a context of an urgent imperative for individuals and groups of people to act differently today towards the environment from how the previous and current generations did. Environmental Education helps us to approach environmental issues raised by refugees today differently from the approach used by previous generations. This point is crucial to this study because it provides the context for rethinking and redesigning a new form of EE at Kala camp, which is different from the EE, which was offered previously there. Environmental education, therefore, becomes a key component to finding durable solutions to the refugee-related environmental crisis. EE in the context of refugees has to provide special focus on the social composition of the refugee and host populations.

According to UNHCR (1996), if the demographic and socio-economic composition of refugees is not analyzed, it may be assumed that these two groups namely, the refugees and the host community are homogenous groups. Therefore, it may be erroneously assumed that environmental impacts have the same effects on both groups and, consequently, people could propose the same EE for both groups.

According to UNHCR (1996), refugees in many parts of the world depend on the local resource base for survival, that is, for fuel, water, shelter and supplementary food items. The same can be said about the local communities, especially in Africa and therefore, EE should take into account this important fact. This implies that EE can play an important

role in the resolution of potential conflicts in the use of resources by the locals and refugees.

Refugee operations are complex and often require an entire support structure for populations fleeing conflict and persecution from the country of origin. The operations are complex because one is dealing with desperate people whose main concern at that moment is survival at whatever cost. These are people who are coming from diverse backgrounds and are trying to learn to leave with each other in another setting. According to UNHCR (1996), this situation means that there are numerous factors to consider, such as providing basic needs like food, water, and shelter as well as addressing protection issues and restoring dignity to a traumatic population. When faced with these countless demands environmental concerns, notes UNHCR (1994), may seem like a 'luxury' and could even be ranked very lowly among the list of priorities. However, UNHCR (1994) states that efforts to mitigate or prevent environmental degradation are key to components of any strategy to protect and assist refugees. These efforts contribute in safeguarding the institution of asylum.

According to UNHCR (1999), experience has revealed that a sudden mass migration of people can lead to deforestation, soil erosion, loss of biodiversity, scarcity of resources, pollution, poor health and nutrition, contaminated water resources and local populations' loss of traditional control over natural resources. These are some of the areas that are supposed to be addressed by the Environmental Education process.

UNHCR (1999) report that, in Goma in the Democratic Republic of Congo, a vigorous Environmental Education program was implemented among refugees through an extensive awareness-raising program carried out mainly by women refugee trainers. The use of women in the program proved to be effective with a reported household outreach percentage of 70%.

In Swaziland, Rwelamira (1990) noted that Environmental Education played a major role in ensuring that refugees were given the necessary capacity to use their land and

environment properly. EE, in this particular case, was vital because of the critical problem of land shortage of which, if there is no effective EE, could cause extensive and sometimes irreparable damage to the environment. Rwelamira (1990) noted this situation of land shortage at Malinza Center in Swaziland. The Center, which was initially meant to cater for only 112 refugees, had 2800 refugees by the end of 1990 due to the contentious influx of refugees from Mozambique. Rwelamira (1990) reports that in spite of the EE efforts that were put in place at the Center, the land quickly deteriorated. This was because the Center only occupies four hectares of land and limited land was available for small gardens. He further reports that as a result of the congestion, tension developed between the local community and the refugees. EE is, therefore, sometimes expected to address issues of conflict in the use of natural resources such as land. This point was similarly noted above on page 13.

The Scandinavian Institute of African Studies (SIAS), (1990), discovered similar conditions to the one described above at Dukwe refugee camp in Botswana. The problem at Dukwe was only solved by a well worked out Environmental action plan by the Lutheran World Federation, which included an Environmental Education program. According to the Scandinavian Institute of African Studies (1990), the EE process succeeded because it took into consideration all the activities of both the refugees and the local community. EE, therefore, should not neglect any input, whether this comes from the refugees, outsiders to the situation such as non-governmental organizations or the locals as all are important in the Environmental Education process.

Environmental Education is critical in ensuring that the players in the refugee environment understand the connections between everyday local actions and the environment. In the case of refugees it becomes particularly important because the actions that they might start undertaking might be new to them as they might be doing that just to ensure their survival without realizing consequences of their own actions on the environment.

Each refugee setting is unique in its own setting although there are certain issues which might be common to all. This means that there cannot be one standard EE program for all refugee settings. This point is picked and elaborated on in chapter four. But before this is done, let us conclude this subsection by restating the important ideas about what we have said so far. Firstly, EE can be tailored to meet the needs of a specific group. In this case, EE for refugees should take into consideration the specific needs and lifestyles of the refugees. Secondly, when coming up with the EE plan for the refugees, the culture and background of the refugees should be taken into consideration and, thirdly, the knowledge about the environment which the refugees come with from their country of origin is an important factor that should be integrated into the EE process. This is closely connected to the fact that each refugee setting is unique and as such should have its own EE plan worked out according to the specific environmental needs of that particular setting. The environmental situation at Kala camp is unique in its own setting and the next chapter looks at the EE process at the camp as it was at the time of the study.

The next chapter reviews literature related to EE in refugee settings around the world.

CHAPTER THREE

LITERATURE REVIEW

3.1 Lessons From Implementing Environmental Education in Refugee Settings

Apart from having the right to seek and enjoy asylum, refugees have at least the same rights as any foreign person living legally in a country (UNHCR, 2000). These rights include basic human rights, freedom of thought, freedom of movement and freedom from torture or any kind of degrading treatment. Refugees also have the right to education and a clean environment. These rights, which the refugees are supposed to enjoy, make Environmental Education in refugee settings a right and a must. There is no way EE can be absent if refugees should enjoy access to a safe and clean environment. This section of the literature review highlights the lessons for Kala camp from implementing EE in refugee settings around the world.

SAFIRE (2001), points out that in Zimbabwe, improving the environment of the refugees showed or proved to stir improvements in other aspects of the refugees' lives, such as improvements in food production. It would, therefore, be important to see how EE has been implemented in other refugee camps around the world especially in Africa and what the results have been. This will be done also while trying to compare and/ or contrast with the EE implementation process in the study area. This will be done so that the challenges faced in each particular case are brought out clearly.

UNFPA (2001) puts it in clear terms that refugees, more often than not, threaten the areas where they are living. According to the state of the world population report by UNFPA (2001), during the 1994 crisis in Rwanda, the influx of more than 600,000 refugees into Northern Tanzania considerably damaged the environment. This was due to the harvesting of firewood and building poles, poaching of game and putting land under cultivation. This kind of damage, according to the UNFPA (2001), had serious consequences on the economic, socio-cultural and political environments of the host

nation. But Fernando Herrera Inaraja (2006, p.5) argues that, “refugees are not threats in any way”.

The UNHCR (1998) observed that meeting the needs of refugees is of fundamental importance to preserving the local environment. Unless adequate supplies of food, building, materials and fuel are provided, refugees will be forced to search for these essentials themselves. This, they argue, can lead to localized degradation and conflicts with local communities over natural resources. Involving refugees and local communities in the development and management of environmental activities is fundamental to managing natural resources in sustainable manner.

Sinclair (1999) identifies the UNHCR as having a vital role to play in the area of educating refugees along with the UN and NGO partners. This is because the international community provides the UNHCR with the physical and human resources needed for a strong field presence in refugee situations.

UNHCR (2006) recognizes the important role that education plays in promoting sustainable environmental management in refugee settings. Education helps in improving the capacity of people to address various issues of environmental concern. This led to the UNHCR (2006) to propose that Environmental Education should be integrated into all disciplines that deal with the biological/physical and socio-economic environments. Lack of information limits the refugees’ response to complex environmental problems. The problem of lack of information for refugees is compounded by the poverty situation, which these refugees find themselves in (UNHCR, 2006). In 2004 UNHCR identified poverty as the main obstacle to social development in most refugee camps around the world.

EE should be present in the refugee operations at every phase. According to UNHCR ✓ (1999) EE activities should focus on simple activities in the early stages of a refugee operation regardless of the situation pending a more comprehensive response strategy. Such strategies can involve awareness raising among the refugee population on environmental rules and regulations of the host country through placement of signs and

posters as well as organized meetings. Two examples from Kagara, Tanzania, illustrate the importance and benefit that can be gained from addressing environmental considerations at the earliest possible moment. Emboldened by the inability of authorities to police game reserves in Kagara (Tanzania) Rwandan refugees and local people encroached upon reserves' wildlife resources (UNHCR, 1998). Poaching brought an abrupt end to revenue from private hunting revenues, formerly averaging US\$ 100,000 per year in local and central government payments and up to ten times this amount through indirect expenditure tourism. These losses were blamed on the lack of EE in the emergency phase of the refugee operation (UNHCR, 1999). This point highlights the fact that environmental concerns are often not a priority at the outset of an emergency operation because securing lives takes precedence but environmental problems created at this stage continue into other phases of the refugee operation and typically become more serious and costly to redress. It is because of lessons obtained from experiences such as the one given above that World Vision Zambia (WVZ) made EE an integral part of its operations at the study area of Kala camp from the inception of its operations at the camp. At Mwange camp where EE was implemented late, there was considerable damage done to the environment through deforestation (WVZ, 2004).

According to UNHCR, in areas where refugees depend on local natural resources, camp populations below 20,000 are most environmentally sustainable. This is, however, contrary to what was obtaining in the study area of Kala camp where the population was slightly over 22,000 in spite of the refugees depending entirely on the local resources for their survival. The UNHCR gives an example of Malawi, a country of only 10 million people, which hosted one-million Mozambican refugees between 1987 and 1995 at a time when the country was already experiencing problems of increasingly small land holdings, declining soil fertility, lack of food security and overall poverty. According to UNHCR (1999) severe over exploitation of natural resources was exacerbated by the refugee influx, particularly with the harvesting of firewood and construction material. These problems were partly attributed to the lack of coordination among NGO's on environmental issues (UNHCR, 1999). Further studies by UNHCR highlighted a lack of inter agency collaboration and weak institutional linkages with other sectors. The

government, according to UNHCR (1999) established the coordination unit of the 'Rehabilitation of the (Refugee Impacted) Environment' (CURE) in 1994 as a unit within the Wildlife society of Malawi. The participation of the government in CURE, according to UNHCR (2000), also proved to be important. Having realized the significance of its participation in environmental programmes, the Government of the Republic of Zambia was involved in the environmental issues in the study area from inception.

In Tigras, Northern Ethiopia, where land was a scarce commodity, the UNHCR reports that EE by concerned IP's made use of the community leaders to educate other refugees about the importance of complying to restrictions on access to closed land. The use of community leaders was also said to be behind the successful implementation of the Tungya system in Cote d' Ivoire in areas hosting Liberian refugees in 1994 (UNHCR, 1998). The involvement of local leaders ensured that EE was relevant to the needs of the refugees and local communities. The involvement of local leaders in the study area of Kala camp was only done during workshops, which were not regularly held. The local leaders were not part of the planning process (WVZ, 2004). Refugee community leaders, according to the UNHCR (1998), should be encouraged to create awareness and a sense of responsibility for protecting the surrounding environment.

Through the use of field based EE, the UNHCR distributed over one million tree seedlings along with 900,000 *sesbania sesban* and 200kg *Cajanus cajana* which are plants that add fertility to the soil by fixing back the nitrogen in the soil to Rwandese and Burundi refugees in Ngara in Tanzania for direct sowing on cultivated plots (UNHCR, 1999). This improved the fertility of the soil and proved the fact that EE activities do not necessarily need to be expensive in order to succeed. The plants that were used in this particular case to improve the fertility of the soil were also used in the study area although refugees in the study area were not eager to collect to seeds (WVZ, 2004). This may again be attributed to lack of involvement of refugee community leaders.

Awareness raising is very critical in the EE process. The next section of the literature review looks at some of the efforts that have been made towards awareness raising about Environmental Education in different refugee settings.

3.2 Effort Towards Awareness-Raising About Environmental Education in Refugee Camps.

Efforts to increase refugee awareness about taking care of the environment are underway in most host nations according to the UNHCR (2006). In Chad, a country that is one of Africa's poorest nations, the UNHCR (2006) reports that through a programme financed by the European Community Department of Humanitarian Aid, the agency was involved in trying to increase the refugees' awareness on a wide number of environmental issues. The refugees who were being taught under this programme were from Sudan and came from a different environmental background. This, according to UNHCR (2004), is one of the major challenges the agency faces as it deals with refugees who are not familiar with the environment in which they find themselves. This situation was however not so much the case with the refugees who were in the study area as most of the respondents agreed to the fact that the environment around the camp (natural resources and seasonal patterns) was quite similar to what was obtaining in their country of origin. It is worth noting, however, that the way refugees utilized the natural resources and the manner in which the locals in the host country did was different.

Although Sinclair (1999) identified UNHCR as having a vital role to play in refugee situations in terms of education, she noted that the agency did not play a prominent role in the education sector of the two most publicized emergencies (Kosovo and Timor) where other agencies took the lead. This situation, where the UNHCR'S role in education was not so pronounced is similar to what happened in the study area where the education sector, including EE was being spearheaded by World Vision Zambia. The role of UNHCR was being complemented by another agency. According to Sinclair (2005), even in instances where another agency takes the lead in the education sector, the UNHCR still has an indispensable role to play as they have the primary responsibility for refugee education. They may still monitor and coordinate education activities as they did in

Tanzania, Pakistan and in the Democratic Republic of Congo during the 1999 refugee influx as well as in Sudan with the Eritrean refugees in 2000 (Nhleko, 2000).

There are different EE methods that can be employed to teach refugees about environmental issues and these have to suit the existing situation. This study has described some of these methods in chapter four. UNHCR (2006) reports that the agency was using different activities to increase the refugees' environmental awareness levels in Chad, and among them were Environmental Education in schools and EE during food distribution. It is also interesting to note that unlike what was prevailing in the study area at the time of the research, UNHCR (2006) reported meeting a lot of difficulties in the EE process because more than 147,000 Sudanese refugees from the Chad-Sudan border were sometimes attacked and this made UNHCR start the relocation programs to other UNHCR camps and settlements which were safer. This situation made EE to become secondary to issues of safety. EE process continued once the refugees were relocated to safer camps where they could be taught about the environment in a peaceful environment. This situation brings out an important aspect, namely, that EE can only be meaningful if the environment/ atmosphere were peaceful as was found in the study area of Kala camp at the time of the research.

At Mwange refugee camp in Northern Zambia, World Vision Zambia (WVZ) conducted environmental sensitization through non-formal environmental eco clubs where they were promoting the use of mud stoves and the management of woodlots. This program was similarly implemented at Kala camp by WVZ but lacked the component of taking an inventory of the mud stoves as, was the case at Mwange (WVZ, 2004). Conducting inventories especially when non-formal groups are used is very important in the EE process.

The involvement of the youth in the EE process is always cardinal and it has been highlighted by many writers. Both Sinclair (1999) and UNHCR (2000) suggest that the involvement of the youth in the EE process is cardinal. It is of particular importance because according to UNHCR (2005), it ensures that the youths have a sense of responsibility to care for their environment and it also ensures sustainability of the EE

programs since these children will grow up with the right attitude and values for the environment. At Mwange camp, a UNESCO-PEER project of developing EE materials for the youths and training them in environmental management was implemented (WVZ, 2004) This project, however, as reported by the Environmental consultant's report of 2004, lacked follow-up activities because there was no coordination and no budget allocation for the activity as was the case in the past (WVZ, 2004). At the research site, of Kala, the same project was implemented and according to WVZ (2004) the use of materials from the environment developed under the UNESCO-PEER project was recorded with the involvement of eco clubs. There was, however, lack of training for patrons of these eco clubs who had shown a lot of initiative in guiding the children. There were no tours or exchange visits, which could give more exposure and morale to the club patrons to carry on with their activities with vigor (WVZ 2004). This report also noted that there were no workshops held to train patrons of the eco clubs on environmental management methodologies such as Permaculture. This showed a lack of capacity building that could affect the sustainability of the programs in the event that the UNESCO-PEER pulled out, as was the case during the time of conducting this research. Most of the EE materials were no longer there due to lack of monitoring.

UNHCR (2006) points out that, refugees, have a very important role to play in the EE process in refugee camps. The refugee's participation in the EE programs and the recognition that the state of the environment lies in their hands is all-important. In Chad, UNHCR (2006) reported that Sudanese refugees were doing their part in taking care of their host country's environment through a program financed by the European Community Department of Humanitarian Aid. This is contrary to what was obtaining in Tanzania and UNHCR (2002) suggested that the number of refugees (influx) had a bearing on whether or not the refugees would co-operate and take care of their environment. If the number of refugees entering a given country at once is great, they will have a lot of needs and may resort to unsustainable ways of utilizing the natural resources around them. In this case, according to the UNHCR (2005), the locals need to be protected as some of their crops and animals may be taken away from them by force by the refugees. With reference to such possibilities of conflicts EE must be designed to

enable people to manage conflicts in just and humane ways (Kim le Roux 2001). EE should convert every opportunity into an educational experience for sustainable societies.

Refugee settings are unique settings and EE in such settings requires careful planning especially when it comes to the methods that are to be employed. The next sub-section looks at literature that has to do with EE methods, which are specifically appropriate to refugee camps.

3.3 Context-Specific Environmental Education Methods in Refugee Settings

The choice of EE methods to be used in refugee situations should in part be determined by the context provided by the refugee operation. This is what one would refer to as “context-specific EE methods”. Such contexts when addressed are very vital in ensuring the successful implementation of the EE process. Environmental Education for refugees, according to the UNHCR (2000), should suit the phase of the refugee operation. In the early days of the refugees settling down in their new environment, the agency proposes non-formal EE methods to be employed, and more formal methods can be used as the refugees have settled down in the camps and settlements. For refugees who, for example, may soon return home, there is often the need to include education about landmines and the dangers of unexpected ordinance in the EE process. Besides mine awareness, the EE messages need to be skillfully conveyed to children (UNHCR 2000). EE methods need to be attuned to the experiences that the refugees have gone through and to be sensitively developed with local EE educators.

Sinclair (1999) points out that a key principle of education in situations of emergency and crisis is rapid response using community-based approach, with capacity building through training of teachers, youth leaders and school management committees. She further points out that the methods used in the EE process should support durable solutions and should also be in the language of the area of origin of refugees. At Kala camp, the refugees could understand and speak the language of the locals (Bemba) and it was therefore easy for WVZ to implement its EE programmes.

According to the UNESCO Program for Education in Emergencies and Reconstruction (UNESCO-PEER) refugees are often poor people from poor rural areas with adults in the families not having completed primary school and, thereby, not encouraging their children to do so. This means that the level of literacy among refugees is generally low and, therefore, EE methods should be designed in a way that will take care of this fact. Chanda (2000) also reported low levels of literacy among the Angolan refugees in Mayukwayukwa and Nangweshi refugee camps in Zambia. This scenario was also prevalent among most of the respondents in the research area of Kala camp where the majority of the respondents had only gone up to primary education level. According to UNHCR (2000), the methods that are to be used in such instances have to be methods that can stir interest among refugees with such low levels of education. The UNHCR (2005) noted that owing to the low levels of education among the refugees in Tanzania, the agency employed the use of role-play in its EE process, which worked well and was able to stir interest in the refugees. Role-playing as an EE method was found to be absent in the study area although data obtained from the respondents showed that the majority of them had low education levels.

Nhleko (2000) suggests that future refugee emergency situations should allow for educational activities to take place in a school like setting. He argues that when EE takes place in such an environment, it will allow the learners to establish a student identity, which should be considered to be an important step towards high participation levels among the refugee learners. However, Sinclair (2005) suggests that in the first weeks of the refugees' arrival, the type of EE offered should be very informal. She gives an example of Rwandan refugees in Goma who sat on hard volcanic rock in front of refugee teachers with no material. After the refugees have been in exile for a long time, systems may be put in place which would allow them to get EE in formal settings like school (Sinclair 2005). In the case of Tanzania, after the refugees had settled down, the informal methods of EE were not abandoned completely but were used alongside the formal ones, which were introduced later on to cater mostly for those who had started attending formal institutions of education that is, schools.

Sinclair (2005) observes that, in some cases, there are educated or experienced refugees as was the case with the Rwandan community that took refuge in Tanzania in 1994. Such refugees can help in the EE process. The latter thing was done in the study area where some refugees were trained by SAFIRE in Environmental issues and were then employed by WVZ as Environmental guides.

The question of which EE methods are to be employed in a given refugee situation at a given time is therefore, a very cardinal one and depends on a variety of factors. EE at Kala camp needs to pay deliberate attention to such a situation a little more than was the case at the time of conducting this study.

CHAPTER FOUR

RESEARCH METHODOLOGY

There were different techniques that were used in the data collection process of his study. The objective of this chapter is to describe the research methodology that was employed in the study at Kala refugee camp. The chapter looks at the research design, data collection methods and also describes the different sources of data that were targeted for the study.

In order to gain a deeper understanding of the levels of awareness of environmental issues among the refugees and the effectiveness of the Environmental Education methods used in the refugee camp, qualitative methods were used in the research process. These included in-depth individual interviews, focus group discussions and observations. This chapter also looks at the issue of validity in qualitative research and the challenges encountered during fieldwork.

4.1 Data collection methods.

Qualitative methods through the use of in-depth and focus group interviews as well as simple and participant observation, enabled the author to gain a broader understanding of the refugees' knowledge on matters to do with the environment and to what extent Environmental Education was contributing to that knowledge. This approach was also important in meeting the research objectives of the research. Due to the fact that environmental issues were closely intertwined with people's way of life and culture, refugees needed educational methods that would go beyond facts to cultivate a deeper understanding. In order to capture such deep environmental understandings among refugees, this study required a research methodology that allowed the researcher to be involved in in-depth experiences of respondents and, hence, the use of participatory observation. It also followed that the results were qualitatively analyzed to bring out the main issues related to the effects of the Environmental Education methods used by WVZ in the camp.

4.2 Choice of Study Area.

The study focused on evaluating the EE methods as operationally defined in this study, which was used at Kala camp to sensitize and educate refugees on various environmental issues by WVZ. In Kawambwa, the refugees were all from one country of origin, that is, the Democratic Republic of Congo and hence they arguably had almost the same cultural background and, by extension, the same view of the environment. This was a unique setting as most of the refugee camps in Zambia have refugees of more than one nationality. Environmental management in the area was important both in terms of prevention and conservation. The area had rich forests that needed to be conserved and, at the same time, efforts were needed to prevent ecological degradation of the area.

The area was chosen for the study because it was convenient for the researcher in terms of accommodation and other logistics like transport. The World Vision Relief office in Lusaka made arrangements with the World Vision Kala refugee Project in Kawambwa for the researcher to be attached to the Kala refugee project for purposes of the study during the whole period of the study, which lasted five weeks. The study area was also chosen because there was no other study on the environment that was conducted in the area prior to this study. This arrangement made active participant observation very easy for the researcher. The researcher was helped with transport to and from the refugee camp every day where there was a distance of 27 kilometers from the District Center where the researcher was lodging to the refugee camp. Some of the WVZ staff at Kala also helped with the administering of the questionnaires and organizing focus group discussions.

4.3 Sources of Data.

4.3.1 *Secondary Data*

Secondary information was collected from UNHCR publications as well as from WVZ publications. This was information in form of status reports by World Vision on various issues in which WVZ was involved in at the camp. UNHCR reports and newsletters were also accessed. These gave data to the researcher such as regarding environmental issues and other activities in the camp updated up to the time of the publication of the literature.

Reference was also made to the Refugee (Control) Act chapter 120 of the laws of Zambia and other literature relating to the stay and welfare of refugees.

5.3.2 Primary Data.

Primary information was obtained through in-depth individual interviews with refugees as well as administering of questionnaires and data recorded from observations.

Key informants

The study identified key informants; those whom the researcher felt could provide valuable information, which was directly connected to the EE process, in particular, and refugee welfare, in general. The ANR program coordinator, the Forestry officer as well as the Refugee environmental guide leader were among those who were interviewed. To get information on the general matters affecting refugees, the Refugee officer at the Ministry of Home Affairs in Kawambwa was also interviewed.

Participant Observation

The researcher took caution knowing that it was easy to lose sight of his research objectives when collecting data as a participant observer. The researcher was involved in some of the ANR activities during the period of attachment at the WVZ Kala project. This provided a good opportunity for the researcher to observe different situations and settings in which EE methods were being implemented. Simple observation was also employed where the researcher was not actively involved in the activities. Some photos were taken during the observations. Special days like the World Refugee Day were also a good time for observation.

Group interviews

Group interviews were a good source of information and also a useful method when time was a constraint and, therefore, the researcher made use of focus group discussions to collect some of his data. Focus groups in the study were male only group, female only group, and a mixed group. This was done because there were certain issues that a particular gender felt comfortable talking about if and when they were only in the

company of people of the same gender. The other reason was to assess which particular gender was more responsive to the EE process.

4.4 Sample Selection Procedure.

It was not possible to interview all the refugees in the camp and so a sizable sample had to be selected for the interviews. There were a total of 81 respondents who were interviewed of whom 44 were male and 37 were females. It was not possible for the researcher to visit all the 34 sections of the camp due to its vastness. Therefore, I randomly sampled a few sections using stratified random sampling method. This method ensured un-biased representation of the sample. To get people for the focus group discussions, the researcher took advantage of the ration issuance days when it was easy to get refugees together who came from different sections of the camp.

4.5 Data Processing and Analysis.

Interview notes from the field were transcribed by re-writing them into readable and meaningful information and were also given some interpretations. Whilst in the field, clarifications and missing information from respondents were sought through the preliminary analysis of data, which was done whilst in the field.

Respondents were grouped according to their gender, age and other categories and their responses were, accordingly, recorded on one analysis sheet. It was from this sheet that the researcher came up with figures and tables after categorizing the responses.

Secondary information gathered from various sources was useful in adding a clear understanding of the subject matter regarding the EE process at the camp.

4.6 Evaluation of Qualitative Research

In order to ensure validation, this study employed different data collection methods or techniques such as in-depth individual interviews, focus group discussions, key informants interviews and observation

Data was collected from both the refugees and the implementers (WVZ). Challenges are however bound to come up in any research process and this particular research was not an exception. Language was a limitation in that, the interview guides were in English but all the refugees at the camp only spoke their native language and Bemba, which is the language, used by the locals in the area. This meant translating the questions into Bemba. Fortunately the researcher speaks Bemba and, therefore, made the translations himself. Some respondents were not willing to answer the questions in the interview guide demanding to first find out what was in store for them in terms of monetary gain after they had answered the questions. They said the interview guide was not addressing their immediate needs such as food and clothes.

Although World Vision provided transport up to the refugee camp a distance of 26 kilometers, within the camp the different sections of the camp were separated, by long distances between them and it was not easy for the researcher to move from one section of the camp to the other.

The purpose of this chapter was to describe the methodology that was used in the research. The methods of data collection, the sampling procedure as well as the mode of processing and analyzing data have all been explained in the chapter. The next chapter presents the results of the study and also discusses the results by way of evaluating the EE methods that were used at the camp.

CHAPTER FIVE

ENVIRONMENTAL EDUCATION AT KALA CAMP.

5.1 Description and Location of Kala Camp.

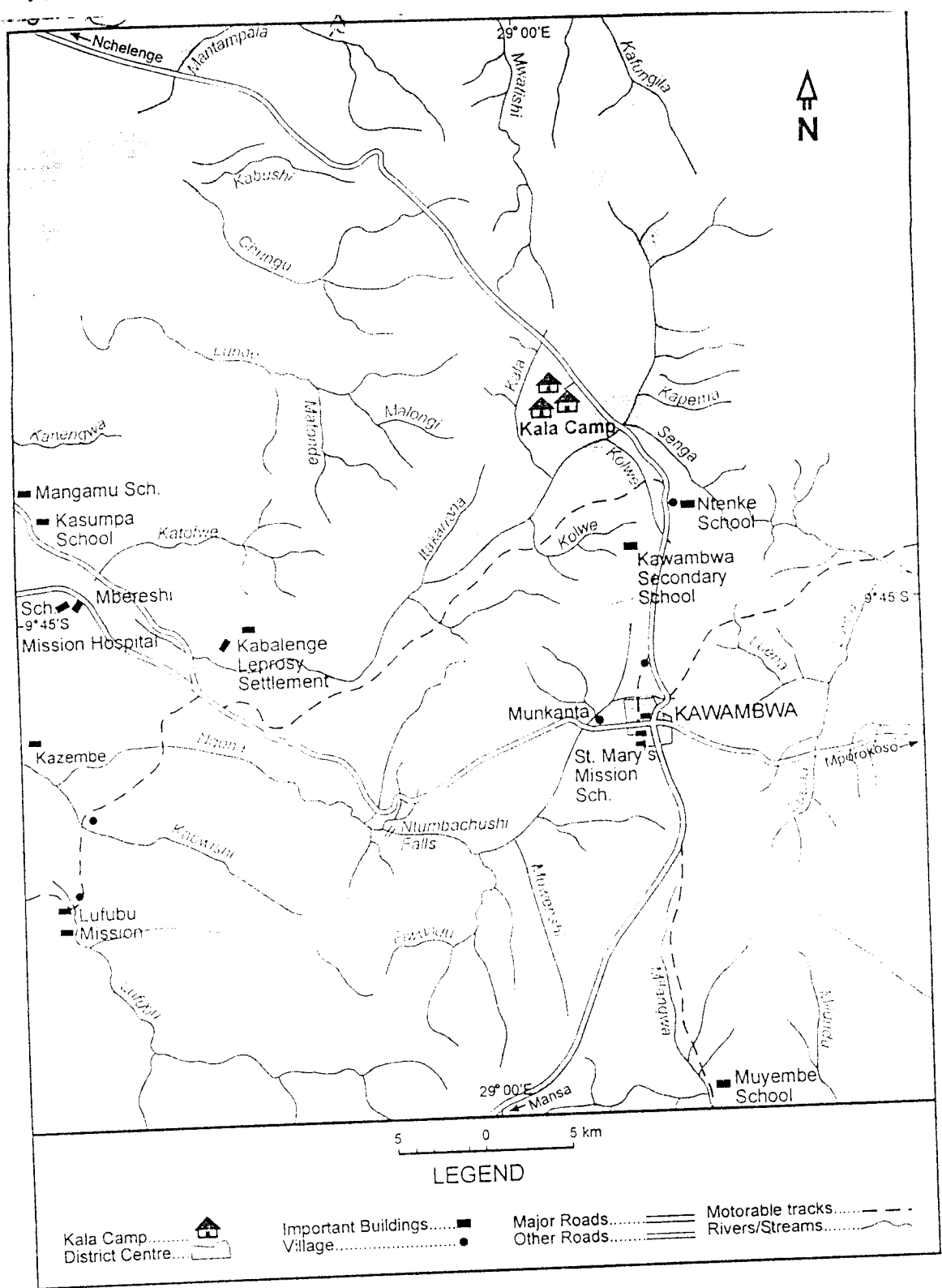
The aim of this chapter is to describe the context of Kala refugee camp in terms of key features which distinguish it from any other refugee setting of a similar nature. This presentation is not part of the findings of this study, because the findings are presented in chapter six. Readers will, therefore, be able to appreciate Kala camp from the contextual variables of its location, specific environmental issues of the camp as well as the related environmental interventions introduced in the camp. In presenting all this information, the chapter assists readers to understand the state of EE in the camp at the time of writing this report.

Kala refugee camp is located in Kawambwa district in the Luapula province of Zambia in the Northern part of the country. The district is famous for its tea plantation and the Ntumba chushi falls which are a spectacular tourist attraction. The area lies in Agro ecological Region III of Zambia with annual rainfall between 1000mm and 1500mm. The refugee camp ITSELF is located 26 Kilometers North West of the central business district of Kawambwa district. It is found along the old Kawambwa-Nchelenge road, which stretches for a distance of about 66 kilometers.

Although rarely used by vehicles this time, the road is still the favourite route for the fishmongers who bring in fish from lakes Mweru and Mweru-wantipa to come and sell to the people of Kawambwa district, refugees inclusive. This is the route that some refugees used to get to the camp especially those who were coming as individuals or in small groups.

Kala refugee camp was opened after Mwange refugee camp in Mporokoso district in the Northern Province of Zambia reached its ceiling point of 25,000 refugees. Mwange camp was opened in March 1999 to accommodate refugees who were fleeing the fighting in The Democratic Republic of Congo (over leaf see the map of Kawambwa showing the location of Kala refugee camp).

Plate 1. LOCATION OF KALA REFUGEE CAMP IN KAWAMBWA



Kala Camp.....
District Centre.....

Important Buildings.....
Village.....

Major Roads.....
Other Roads.....

Motorable tracks.....
Rivers/Streams.....

LEGEND

The camp lies in chief Mutondolo's area who is a chief under senior chief Mwata Kazembe. However, according to World Vision Kala Project senior Agriculture and Environmental Officer Emmanuel Kasongo (July, 2005.Pers.Com), the same area where the camp was located was being claimed by sub-chief Ntenke who is under senior chief Munkanta. This is seen as a potential area of conflict especially after the refugees are repatriated. The locals are of mainly one ethnic composition, the chishinga tribe.

The area where the camp lies is well drained by two medium sized rivers, the Kala and Samba Rivers on the southern and eastern sides respectively. Kala camp is, therefore, named after a local river. The rivers run through out the year owing to the good amount of rainfall that is received in the area. The two rivers are used for domestic purposes and lately for irrigation purposes, which is explained in the later paragraphs of this sub-section.

Kala refugee camp is in a Miombo woodland area with open forests. The forests, according to WVZ (2005), are endowed with some of the high valued indigenous tree species such as those listed below;

Table 2: *Common Tree Species around Kala Refugee Camp*

S/N	COMMON NAME	SCIENTIFIC NAME	COMMON USES
1	Mukwa	<i>Pterocypus angolensis</i>	Poles, dye, charcoal medicinal, timber
2	Mupundu	<i>Parinari curatelifolia</i>	Fruits, dye, beekeeping
3	Mupapa	<i>Afzelia quanzensis</i>	Medicinal
4	Mubanga	<i>Pericopsis angolensis</i>	Medicinal
5	Umupundu	<i>Jubernida pariculata</i>	Fiber,charcoal,beekeeping
6	Umufungo	<i>Any sophilia boehmii</i>	Fruits
7	Saninga	<i>Fauria salinga</i>	Poles, Timber
8	Ndale	<i>Swatzia madagascariensis</i>	Fruits, bee keeping
9	Musuku	<i>Uaapaca Kirkiana</i>	Fruits, Bee keeping
10	Musafwa	<i>Syzigium guinensi</i>	Fruits, bee keeping
11	Musamba, Mpsa	<i>Brachystegia boehmii</i>	Poles, fiber, beekeeping,

			timber charcoal
12	Musangati	Psuedolacknostailis maproneneifolia	Medicinal
13	Mutobo	Brachystegia Longifolia	Medicinal
14		Comdretum Zeheri	Dye

Source; Status report on Natural resources, WVZ (2005)

The total area covered by the camp is 2,803.7 hectares or 28.037kmsq (i.e. 29.8ha is residential of which 220.8ha is occupied while 110.4is reserved for future development) (WVZ, 2005).

By the middle of the year 2004, land demarcated for crop production was 1,940.6 ha. By the end of that same year (2004), an additional 579 ha was offered by the local traditional chiefs to refugee farming households.

According to statistics by the Ministry of Home Affairs, Office of The Commissioner for refugees and UNHCR, the total number of refugees at the camp as at April 2005 was 22,133. The total number of families at the camp as at April 2005 was 6, 141 all of who were from the DRC. The number of refugees had gone down from slightly above 23,000 in 2003 due to spontaneous voluntary repatriation. Refugees who wanted to return home spontaneously were allowed to do so although it was at their own risk and expense.

According to Musonda (July 2005. Pers .com), who was the refugee officer, the refugees were made to fill in a declaration form accepting full responsibility of the consequences that may occur arising from their decision to return to their original home and, thereby, relinquishing all the protection and benefits accorded to them as refugees (see appendix IV for a copy of the declaration form).

The ethnic composition of the refugee population is 98% Tabwa and just 2% Bembes. The Bembes who are mainly from the boarder areas between Zambia and the DRC arrived later and refused to be integrated with the Tabwa but were told that as refugees they did not have much of a choice and they later on agreed to be integrated with the Tabwa in the same camp. It is important to note that there were no refugees from other countries in this camp.

The refugees built permanent structures in the camp that had 34 sections, each with an average number of 170 households with maintained feeder roads. The camp had a clinic, 6 primary schools and a secondary school. Other services available in the camp were two markets, churches for various denominations and a public library. The camp, however, did not have an EE Center.

5.2 Environmental Issues at Kala

The refugees at Kala camp were surrounded by a lot of environmental issues, which needed to receive un-divided attention if the camp was to attain ecological stability. This section looks at some of the environmental issues at Kala camp that were receiving specific intervention from WVZ. The specific interventions that were carried out in addressing such issues are also described in this section.

According to Musonda (July 2005, pers.com) Kala refugee camp was used as a Zambia National Service (ZNS) camp in the early 1970's. ZNS carried out Agricultural activities in the area but their farming was bent on using chemicals and fertilizers to increase and enhance productivity. This means that the soils in the area had by then been damaged and needed fertilizers all the time if the crop was to grow well. The cost of fertilizer was however, something that was beyond the reach of the refugees and this, therefore, posed a great challenge to WVZ to find alternative methods of improving the soils.

The area was also prone to erosion due to the high rainfall activity in the area. According to WVZ (2005) this problem was being checked by educating the refugees on the need to retain between 5 to 20% of the original tree cover just upon their arrival at the camp.

WVZ (2005) points out that the initial development of the camp residential area did not take into consideration the need to retain a healthy tree cover. The camp, therefore, still had a significant tree population serving to provide shade and erosion control within the residential area.

Immediately surrounding the camp there were four areas, which were protected from any form of destructive human activity. These were well-preserved Miombo forests. The open forest zones were not tempered with before the arrival of the refugees. There was no activity going on in the area prior to the arrival of the refugees. Upon arrival, the refugees started cutting some of the trees mainly for fuel purposes and for cultivation. This was a major concern to WVZ who had to put in measures to address the situation. These measures are explained later in this chapter.

Given the number of refugees which were at the camp and also the area that was available for different activities, there were a lot of areas which were of Environmental concern to WVZ and which needed certain specific interventions. Some of these areas were the residential areas, the buffer forest zones, the farm plots and the water catchments areas. The specific environmental interventions applied to each of these areas of the camp are described in the sub section below.

5.2.1 Specific Environmental Interventions by World Vision Zambia.

In an effort to redress deforestation in the camp and to control the harvesting of trees from the natural forests, WVZ managed a tree nursery on a yearly basis. This can be said to be the first area of intervention. At this nursery, various seedlings were raised for planting in identified places that needed afforestation. These places were called Woodlots and they required close management. According to WVZ (2005), Kala camp had 11 such woodlots most of which were being managed by the refugee community (by weeding, pruning, and so on) through an agro forestry practice called 'Tungya'. This is a practice where food production was done on plots where trees were allowed to grow for specific useful reasons. The practice served a dual purpose of meeting food needs of families involved in the woodlot management as well as ensuring cost effective management of the woodlots. Some of the crops planted by the refugees in the woodlots included groundnuts, sweet potatoes and beans.

Table 3. *Tree species raised at Kala forest Nursery in 2004*

Specie Type	Wood Type	No. Of Pots With Germinated Seed
Paw paw	Fruit	10,735
Lemons	Fruit	7,320
Guava	Fruit	2,745
Gmelina arborea	Soft wood	5,490
Mukwa	Hardwood	3,690
Flamboyant	Soft wood	3,690
Avocadoes	Fruit	615
Jacaranda	Soft wood	1,213
Sesbania seban	Agro forestry	2,500
Leuceana	Agro forestry	2,500
Pine	Soft wood	700
Neem tree	Soft wood	99
Senna seamea	Softwood	1,230
Cypress	Soft wood	100
<i>Afzelia</i>		25
Total seeds germinated		42, 669

Source: *WVZ Kala status report (2005)*

The second Area of intervention by WVZ had been the promotion of Permaculture in the residential area of the refugee camp. According to SAFIRE (2004) this is a practice that had made significant strides in improving food security and nutritional status among refugees in Zimbabwe where it had been implemented in a refugee setting. These improvements were mainly due to what SAFIRE termed “diversification of refugee livelihoods”. The strategy combined the effect of food security, income generation as well as self- reliance in the refugee camps.

In the residential area of Kala camp, human activity had continued to promote land degradation through unguided digging of pits for construction purposes on plots that could have otherwise been used productively. These pits not only took the position of useful pieces of land but were also a danger to human lives around the refugee camp.

In the idea of Permaculture lies the implicit idea of promoting sustainable resource utilization in that existing natural resources around the homestead could be manipulated to bring about useful results. Permaculture identifies different ways in which land around the homestead may be used. It is a sustainable type of farming but more than this SAFIRE (2001) describes it as a design system for creating sustainable human environments. It stresses the relationship between landscape elements and deliberate spatial design.

According to SAFIRE (2001), while Permaculture dealt with soils, plants, animals, water and infrastructure at one level, it was really about relationships that could be created between these elements by the specific ways in which they are placed in the landscape. Although humans consciously design it, a Permaculture system is still expected to have diversity, stability and resilience of a natural ecosystem, and is able to provide people with energy, shelter, and other needs in a sustainable way.

Although the term ‘Permaculture’ was first coined in the 1970’s (SAFIRE 2001), the system was just recently introduced at Kala camp in December 2004. A Permaculture demonstration plot was in existence since 2003. The community around the refugee camp, according to WVZ (2005), was yet to awaken to its potential. By July 2005, seven demonstrations were carried out in various parts of the camp. There were also sensitization programs going on through the ‘Mazingira’ around the camp. The term ‘Mazingira’ is a term from the refugees’ local language and it will be explained later in this chapter. A total number of three refugees were identified and trained in December

2004 by consultants from SAFIRE of Zimbabwe in Permaculture and were expected to provide overflow training activities around the community in Kala.

The other area of intervention for WVZ had been the Physical Protection and Resource Conservation. The main objective of this intervention measure was to protect and conserve the genetic resources in the naturally occurring forest species within the immediate camp surroundings. To help achieve this, a 14-kilometer long clearing with a width of 4 meters was maintained around the camp. This also served to protect camp buildings from wild fires as well. Over 90% of the buildings in the camp were grass thatched.

According to WVZ (2005), between December 2004 and January 2005 alone, 183 Gmelina seedlings from the forestry nursery were planted on a stretch along the traditional firebreak surrounding the buffer areas from wild fires. Well-developed Gmelina trees serve as effective green fire breaks as they drop green leaves and fruits, which deter fires.

As pointed out earlier on, the trees around the camp were a good source of wood fuel and this put tremendous pressure on the trees from the 22,000+ refugees who depended on wood fuel. As compared to charcoal, which is prevalent in urban areas of Zambia, wood fuel is the most used energy source for rural areas such as Kala. It was because of this that WVZ came up with the idea of mud stoves, which were specially made to conserve on wood fuel because of their effectiveness. WVZ (2005) points out that the organization through the Agriculture and Natural Resources sector of World Vision Zambia (ANR), conducted monthly demonstrations of mud-stove construction. At such gatherings, the community was educated on the need to conserve forests by using mud stoves. The stoves utilized wood fuel more efficiently than the ordinary three stone hearths as they were specially designed to store heat for longer periods of time. Their design also allowed only small pieces of wood.

Controlling erosion around residential areas of the camp and around the farm plots was yet another area in which WVZ had intervened. Due to the non-availability of farming land, there were tendencies among the refugees to over-cut the trees and over-exploit the plots given to them for cultivation. To help counter the effects of such practices, WVZ had reinvigorated the campaign to plant nitrogen-fixing agro forestry tree species to check erosion and enhance productivity of the land for crop production. According to WVZ (2005), various agro forestry seedlings and seeds had been distributed to lead farmers in the year 2005.

There were plans by the ANR sector to utilize the four well- preserved Miombo forest zones for a pilot project of shifting attention from destructive practices such as charcoal burning to the economically and environmentally sound practice of bee keeping (WVZ, 2005, Status Report). Bee keeping could have proved to be a useful activity to promote in refocusing refugees' attention from destructive activities to the profitable and ecologically sound activity of bee keeping.

This subsection took a look at the specific environmental interventions that were undertaken by WVZ in trying to address environmental degradation in the areas that were identified as needing immediate attention. Closely connected to these specific and practical intervention measures was the process of Environmental Education, which is what we look at next in the subsection that follows.

5.3 The state of Environmental Education at Kala Camp.

According to the UNHCR (2004) and as noted earlier on, Kala refugee camp was opened in August 2000 after Mwange refugee camp became full and a new influx was taking place from DRC following the fall of Pweto. Having learnt a lesson from the Mwange refugee camp experience where the environmental program was implemented rather late, World Vision Zambia was on site to implement the EE program at Kala as soon as the camp was born. The details about the camp are given in the following subsection. This particular section describes the type of EE, which was implemented by World Vision Zambia and other stakeholders at the camp. The purpose of providing this state of the art description of EE at the camp is so that it can be a basis for its critical evaluation with a view to suggesting some complementary EE processes there

Among the Implementing Partners (IP'S) of EE at Kala camp was World Vision Zambia (WVZ) who registered their presence at the camp as soon as the refugees arrived there. They were still present at the time of this report. Apart from distributing food and non-food commodities, infrastructure development, and camp management, WVZ's project areas of responsibility in service delivery to the refugees included the key sector of natural resource (or Environmental) management. This Environmental sector, according to the WVZ Status Report (2005), had three main objectives, namely land rehabilitation, Environmental awareness and education as well as protecting and mitigation. The underlying objective in all of these programs and activities was to facilitate the attainment of sustainable resource utilization amongst the refugees and Zambian host communities in their immediate environments.

The environmental sector had a total of 14 refugees who were employed by WVZ to help in delivering Environmental Education. According to WVZ (2005) these extension workers attended workshops on various aspects of Environmental protection and were expected to carry out the education among their fellow refugees. The designation of extension workers suggests that the predominant type of EE, which these people

provided, falls under the non-formal educational category. This point is important to note because EE needed also to be provided formally in schools.

Realizing the important role that schools play in the dissemination of information, WVZ had helped to establish an Eco Club in each of the seven basic schools in the camp including the secondary school.

Since the refugees at the camp depended on wood fuel, the non-formal EE process was deliberately designed to help control the harvest of trees in the forests. In this vein, the program introduced mud stoves, which were efficient and by far used much less firewood than cooking in the open. This was in an effort to curb deforestation. The refugees were being taught about the importance of tree planting and the advantages it had to the environment.

There was a tree nursery that was managed by WVZ where tree seedlings were raised for the planting in identified areas that needed afforestation.

Upon arrival, new refugee families are given a farming input pack comprising of seed and tools to cultivate small pieces of land. The WVZ report of 2005 stated that these refugee families were educated on the World Vision's policy of retaining 20% of the original tree cover (depending on the particular plant needs) in order to check erosion. In the last quarter of 2004, WVZ recorded a decline of 42% in illegal tree cutting. This was attributed to the efforts by the environmental guides who educated their fellow refugees on the subject matter as well as to the patrols that they conducted in the forests (WVZ, 2005).

According to Mwale (July 2005, pers.com), the workshops that were arranged for the refugees were usually targeted at the section leaders in the refugee community who were expected to disseminate the information to other refugees. The topics that were taught at the workshops were identified by WVZ. Kasongo (July 2005, pers. com) stated that WVZ had a deliberate policy of employing more females as environmental guides and extension workers because there were more female-headed households in the camp. There was also the use of role play in trying to educate the refugees about the

environment but this happened only on occasions like the World Environment Day on which the Environmental group or 'Mazingira', which means care takers of the environment in the refugees' local language, could take advantage of the rare large gatherings such as those shown In the following picture;



Plate .2 *Environmental Education at Kala during the World Refugee Day Celebrations (2005)*

The same EE program that was being implemented at Kala camp was being implemented also at Mwange camp in Mporokoso where the response according to WVZ (2004) had not been as good as it had been at Kala. They attributed this to the late intervention by Implementing Partners (IP's) at Mwange camp in preventing Environmental degradation.

According to WVZ (2005), Environmental Education is a key component in capacity building for Environmental management. It is because of this reason that EE had been an integral part of the Environmental management program at Kala camp from inception.

It has already been noted above that the process of Environmental Education started from the first day when the refugees arrived at the camp. As the refugees were given their

farming input pack upon their arrival, they are educated about WVZ's policy to retain between 5 and 20% of the original tree cover (depending on the plant needs) in order to check erosion. EE, can therefore, be said to be present at the first day of the refugee's life in the camp. The education goes on for the refugees as they settle down in the camp.

In addition to those outlined in the above paragraphs, there were several methods that were being employed by WVZ through its Agriculture and Natural Resource sector to educate the refugees about environmental issues. It is such EE methods, which have formed the focus of evaluation in this study. The methods include, for instance, field based EE, open lectures and workshops.

WVZ was represented by a regularly trained human resource of Environmental Guides at camp level who formed the link between the project staff and the entire refugee community. According to WVZ (2005), the basic task of these Environmental Guides was that of environmental extension delivery and enforcing the environmental sector's objectives to the 22,000+-refugee population of Kala. At the time of the report, there were 14 Environmental Guides who were being given a monthly monetary incentive by World Vision.

To enhance the capacity of refugee extension workers, workshops were conducted every year covering various aspects of environmental protection. WVZ (2005) notes that in the year 2004, not all the planned workshops took place due to constraints encountered in funding of the project.

One of the key areas where EE was being implemented was in the area of agriculture where integration of agro forestry practices in agriculture was being taught and the advantages spelt out to the refugees. WVZ (2005) reports that in January 2005 alone, 77 farming households (57 male and 20 female) received 25 grams each of *tephrosia Vogelli*, *madagascariensis* and *Sesban sesban* (agro forestry seeds) for enhanced nitrogen fixation in the soil. As the refugees went to collect these seedlings, they were

taught about the advantages of using the plants in agro forestry. The same routine was happening when the refugees went to collect other seedlings from the nursery, which they planted, either on their farm plots or around their house yards.



Plate3 Field-based EE at Kala camp on one of the farm plots (notice the Environmental Educators in blue)

WVZ used a trickle down method in their quest to let information flow. It is hoped that the refugees that were trained would disseminate the information to other refugees around the refugee camp but this was not always the case and, sometimes, it was not as effective as it was hoped to be. At other times, the workshops that were held to look at various aspects of environmental management were targeted at the environmental guides and sometimes section leaders in the camp. There was no room for the ordinary members of the refugee community to attend these workshops although they were also key stakeholders in the environment management process of the camp environment.

In an attempt to reach out to the youths of the camp, WVZ had spearheaded and supported the running of Eco-clubs in the camp. Though these clubs ran independently, they were an initiative of World Vision Zambia and usually got financial and material

support from WVZ. Eco-clubs were the main environmental groups in the schools at the camp and comprised of volunteer pupils.

Such eco-clubs were working very closely with the ANR sector of WVZ. According to WVZ Status Report (2005), the patrons of these Eco-clubs and representatives of the women environmental clubs were invited to a sensitization meeting in January 2005 by the ANR in an effort to increase their levels of environmental awareness. Eco-clubs in the schools were running various educational programs and it was hoped that the educated pupils would, in turn, go and educate their friends who do not go to school as well as their families and people around the camp on various environmental issues.

Apart from the above methods, the environmental guides also went round the camp educating the refugees on various aspects of the environment including mud stove usage, which they were also constructing for the refugees. The refugees who were trained in making stoves were supposed to learn the skill and assist others with the construction of the stoves as well as fixing of the stoves when they broke down.

Near Kala River, there were garden plots that were given to refugees either as individuals or as groups (e.g women groups) to start vegetable gardens, with free seedlings from the ANR nursery. The idea was to make the refugees self reliant through generation of income and supplement of nutrients from the vegetables. However, according to Funga (July 2005, pers.com), the response from the refugees had not been good although everything starting from watering cans to seedlings was provided to the refugees freely. The river provided water for irrigation and the technical knowledge was also provided free of charge by the staff of the Agriculture and Natural Resources of World Vision.

It has been stated earlier on that, according to the UNHCR (1994), refugee women played a major role in raising awareness levels among refugees in Goma in the Democratic Republic of Congo where they promoted energy saving practices. The participation of women saw about 70% of households getting involved in the process. WVZ wanted to take a leaf from such successful programs by employing more women as environmental guides and also by encouraging more women environmental clubs.

Another method, which was used by ANR to spread information on environmental issues, was that of role-play. However, this was not easy, as it had proved difficult to bring large crowds of refugees together in the camp except on special days like the World Environment Day and World Refugee Day, which had proved to be crowd pullers to the football pitch where activities associated with the celebrations, took place. During the celebrations, which are usually very well attended (the author attended the World Refugee Day celebrations), the environmental groups or 'Mazingira' as they are known in the refugee's mother tongue, were given time to perform plays that demonstrated the importance of looking after the environment well. As they performed the plays, some songs were sung which carried varied environmental messages. Selected community schools were usually present at such celebrations to cite poems, plays and so on through their Eco-clubs.

To ensure that Visual arts were used more in the dissemination of information, the ANR sector had put up some bill boards with different environmental messages in the refugees' own local languages. These were put in strategic places and were well maintained, that is, the grass around them was regularly cleared so that the message was always standing out clear for any one to read. There were a total of 8 billboards in total around the refugee camp.

This subsection was meant to describe EE as it was during the time of the research. It described each method that was being used in the EE process and how each method hoped to reach the grassroots of the refugee community through information dissemination. The next chapter looks at the Methodology that was used in the research to evaluate the effectiveness of the above-described methods.

CHAPTER SIX

PRESENTATION AND INTERPRETATION OF RESULTS

This chapter presents the results of the study and interprets the results. The results presented in this chapter are those obtained through observations, interviews with respondents (refugees) using questionnaires, from interviews with key informants as well as through focus group discussions.

The results are presented separately for each category mentioned above although reference is sometimes made to other categories when discussing a particular category for purposes of comparisons and clarifications.

6.1 Data from Respondents.

Data in this section was obtained by means of a questionnaire, which was administered to the refugees. To allow for flexibility, and also to capture more information, an open-ended questionnaire was used as explained in chapter four. The questionnaire aimed at finding out the refugee's sensitivity to and involvement in issues to do with the environment in general and the Environmental Education process in particular.

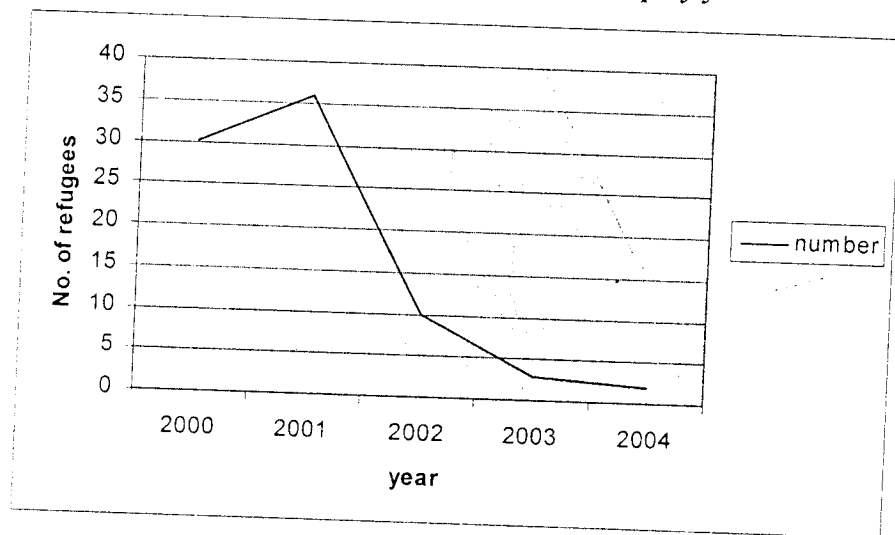
6.1.1 Demographic Data

The research population of the refugee camp at the time of the study was 15,300. To get the sample for the study, the sections were first sampled using stratified sampling. The members of the sample were then selected using simple random sampling. Respondents were drawn from both sexes in the camp. These came from different sections of the camp as explained in chapter four. The total number of respondents was 81 out of which 44 were males representing a percentage of 54% of the respondents and the remaining 37 were females representing 46% of the respondents. Thirty-three (33) of the respondents were aged between 15 and 20, representing the youths of the camp and 40% of the respondents. Thirty-seven of the respondents were aged between 27 and 35

representing 33% of the respondents. Fourteen respondents were the ones aged between 36 and 45 and representing 18% of the respondents. The last category comprised respondents who were aged over 45 years and seven respondents from this category participated representing 9% of the respondents.

The marital status of the respondents also varied. Forty-seven of the respondents were married, twenty-four were single, five were divorced and five widowed. The length of stay at the camp also varied and the graph below shows the year of arrival of the respondents in the camp

Fig 2. Respondent's year of arrival in Kala camp by year



As shown in Figure 5 above, there was a steady decline in refugee arrivals at the camp as represented by the years during which respondents themselves arrived in Kala Refugee camp. This was also confirmed by Musonda (pers.com July, 2005) who attributed the decline to the reduced fighting that was recorded in the DRC where the refugees originated from. Thirty respondents came to the camp in 2000 while thirty-six of the respondents arrived in the camp in 2001. This was the period when fighting in the country of origin was at its peak. Only ten of the respondents arrived in the camp in 2002 three and two arrived in the camp in 2003 and 2004 respectively.

6.1.2 *Level of Education*

It was important to take note of the education levels of the respondents. As pointed out by Kelly (2001), education has a vital role to play in helping human beings to improve their relationship with the environment and, indeed, in contributing to the ultimate sustainability of the planet. Education in a broad sense can make major contributions to a better understanding of environmental problems and to ways of addressing them appropriately and effectively. The complexity of environment and development linkages mean that education plays a vital role in understanding these linkages. This, however, is not to undermine traditional and cultural knowledge which according to ILO (1993) has a special and important role to play in promoting environmentally sustainable development.

Fig 3. Respondent's level of education

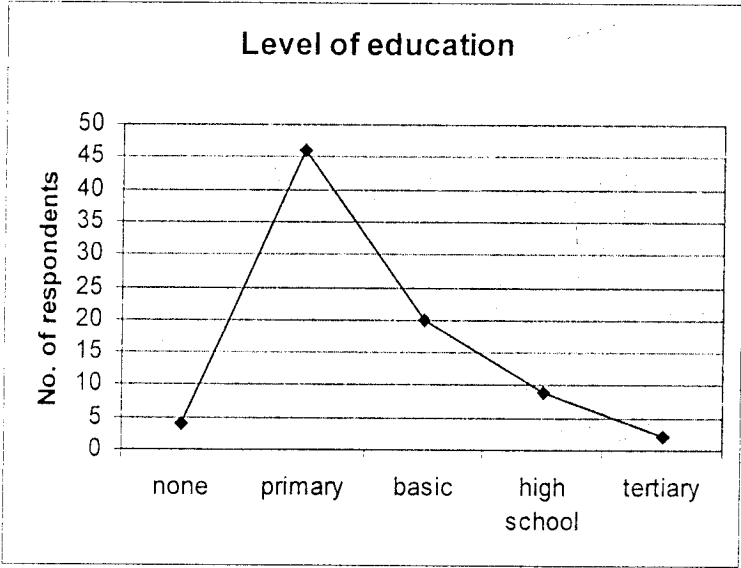


Figure 3 shows that only two of the respondents went up to tertiary education, four had not gone to school at all and 46 had gone up to grade seven while twenty had basic education (grade8-9).

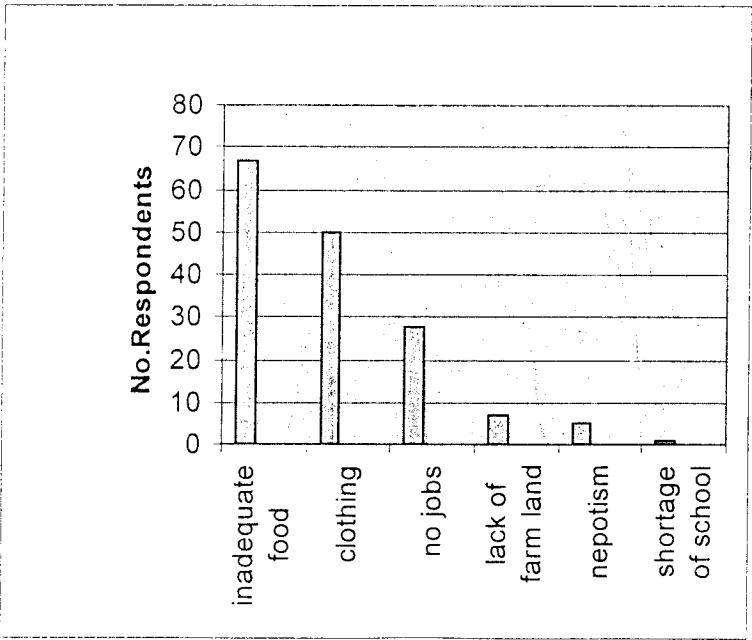
The results show that most of the respondents had very humble educational background. The refugee officer confirmed this when he said that Mwange refugee camp in

Mporokoso was the one that had more educated refugees mainly because they came from urban areas. The refugees at Kala camp were mostly from rural boarder areas of the DRC where the main preoccupation was fishing (Musonda, pers. com, July 2005). There was relatively little importance attached to education in the areas where the refugees came from as compared to urban areas. Most of the respondents who had low levels of educational qualifications admitted that they did not go far in their education because it was not considered important where they came from. They said they went to school to learn how to read and write French and once they did that they saw no reason of continuing with their education.

6.1.3 *Perceived Problems*

The failure to meet basic needs could be one of the major causes of environmental degradation. This is because poor people in particular depend on the local environment and its resources. In this vein, the researcher thought it was important to ask the respondents about the problems they were facing in the camp. The respondents were given the option of mentioning as many problems as they could. The most prominent problems that came out as perceived by the refugee respondents are shown in Figure 4

Fig 4. Problems Perceived by Respondents of Kala Refugee camp



More than half of the respondents, 67 (83%) said the problem of inadequate food rations in the camp was prominent and one that needed to be addressed immediately. This meant that the refugees had to find something to do to supplement the meager food rations that they were given by the World Food Program (WFP). These rations were given according to the size of the household one had and, therefore, data about household size was regularly updated with the help of section leaders in the camp to include new births, exclude death cases and spontaneous repatriation cases. Refugees translated this point to mean that the bigger the family one had the better. This translation by the refugee respondents was, however, going against the environmental principle of checking population growth to see to it that it marches the available resources. One of the complaints which came out so strongly from the respondents was that, besides the food rations not being enough, the sorghum which the refugees were being given at the time was something that was new to them and that they could not get used to it.

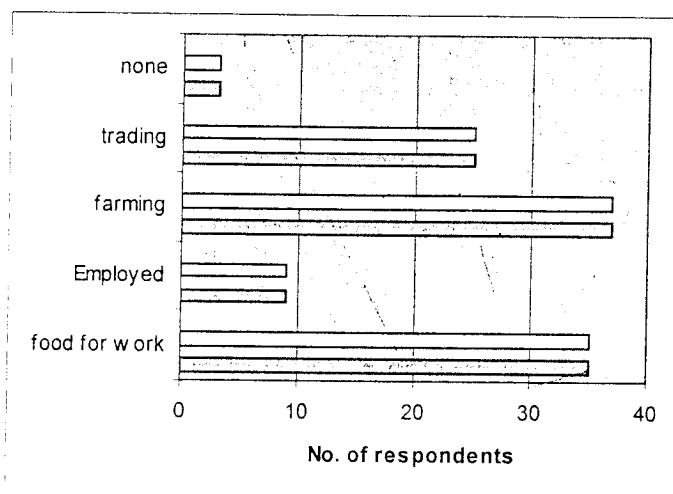
To try and address the problem of inadequate food rations, WVZ came up with the gardens project where they were giving garden plots to the refugees as well as vegetable seedlings free of charge. This was done in order to improve the nutritional status of the refugees and also the financial position arising from the sell of surplus vegetables. Education on the care of the gardens was also given free of charge to the recipients of the seedlings. Surprisingly, the program of giving garden plots, vegetable seedlings and education about these items had received very little support and participation among the refugees was rather low. The response to the program can be said to be poor as only four of the respondents confirmed having gone to the nursery to get the seedlings and of these, only two of them had actually made the gardens.

The shortage of farming area was another problem that was identified by 9% of the respondents. They complained of the limited size of plots that were given to them. To complement for the limited size of farm plots, it meant overusing the small plots given to a few of the refugees, thus, making EE imperative.

6.1.4 *Economic Activities.*

The economic activities that people involve themselves in can sometimes have a direct bearing on the environment. Refugees engage themselves in different economic activities to ensure their survival. Figure 5 shows the different economic activities that the respondents were involved in at the time of the research.

Fig 5. Economic activities of respondents



The refugees in the camp engaged themselves in different economic activities to help supplement the food rations that the WFP gave them. Figure 5 reveals that thirty-five out of the eighty- one respondents said they went to work in the fields of the locals (Zambians) in the surrounding villages and were given food as payment. This represented 43% of the respondents. The food that the refugees were given after work ranged from cassava, cooking oil, maize, mealie meal and millet. Although the Central Business District of Kawambwa is some 26 kilometers from the refugee camp, some refugees were walking up to the CBD to find piecework where they could be given food in return. There were limited opportunities for employment around the refugee camp. Some of the refugees with tertiary education had been employed as teachers in the six schools of the camp. These teachers were paid by WVZ through its education sector. Other refugees in the camp were employed by other IP's in different capacities as shown in Figure 5 very few refugees were formally employed due to the limited job opportunities in the camp. Thirty-seven (46%) of the respondents said they were involved in farming activities as an

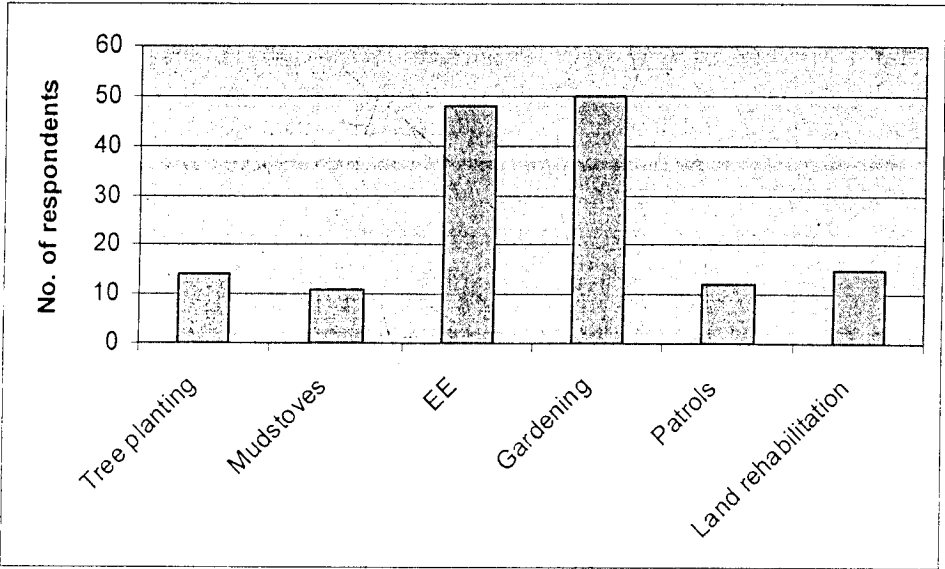
economic activity to improve their economic and nutritional status. This farming was on the plots that the refugees were given by the WVZ/ANR sector. These were the plots that were given to all the refugees upon arrival in the camp and are different from the garden plots to which the refugees did not respond favorably.

6.1.5 *Environmental Awareness*

Several questions were asked to the respondents to ascertain their levels of awareness about environmental issues. The respondents were asked on whether or not they knew of any environmental programs that were going on in the camp. Only five of the eighty-one respondents said that they did not know of any environmental programs in the camp. In other words, 76 respondents representing 94% agreed that they were environmentally aware. This is a very significantly high figure, which normally, would be expected to translate into a condition of environmental sustainability of the camp area. The reality on the ground however showed that there were low participation levels among refugee in environmental programmes. This forms the basis for proposing new EE approaches, which may stir interest in the refugees to actively participate in EE programs. All the five respondents who had answered in the negative were male. This suggests a higher level of environmental awareness among the female respondents compared to their male counterparts.

The respondents were asked to name the environmental programs that they were aware of among the different WVZ environmental programs. Figure 6 shows how many refugee respondents were aware of each environmental problem;

Fig 6. Environmental activities of Kala camp known to respondents



As shown in Figure 6 farming/gardening was the most well known environmental program amongst the respondents. In this regard, farming/gardening referred to the various environmental projects in the agriculture sector which WVZ was undertaking, which included giving nitrogen fixing plants to the refugees and teaching them about the importance of these plants, giving out seedlings including education on how to grow them, giving out farm plots and the accompanying teaching of sustainable methods of agriculture.

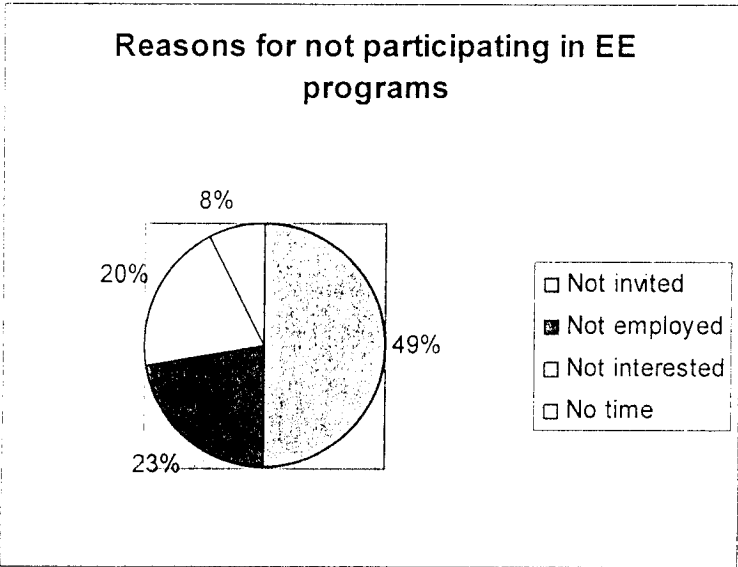
Sixty percent (60%) of the respondents mentioned that they knew or had heard about the Environmental Education process in the camp. This refers to all the EE processes that were explained in chapter three.

NGOCC (2004) points out that degradation of the environment leads to scarcity of natural resources. It is for this reason that WVZ had, from its inception, identified the rehabilitation of degraded areas in the camp as one of its priority areas in its quest for improving the environment in the camp. There were a total of 15 respondents who said they knew about the land rehabilitation program representing 18% of the respondents. Another 14 said they had heard of the tree-planting program while 12 had heard of the forest patrols. Eleven respondents knew about the mud-stove program. The target for

WVZ was to have each household possess a mud stove and the agency hoped to achieve this by teaching the refugees on how to make the mud stoves. The data in the table, however, shows that not many refugees even knew of the mud stove programme, as only 11 of the respondents knew about the mud stoves. This is another indication that the EE approaches which were used by WVZ were not effective and, therefore, underscores the importance of alternative EE methods.

The respondents were asked whether or not they participated in Environmental programs and 49% of the respondents agreed to having participated in one program or the other. The 51% who said they did not participate in any Environmental program were asked why they never took time to participate in these programs. Figure 7 shows the responses of the respondents

Fig 7. Reasons cited by respondents for not participating in EE programs of Kala camp



According to the data in Figure 7, 49% of the respondents felt that they needed to be invited for them to participate in the EE programs and, therefore said they did not participate in the EE programs because they were not invited. They said that they were waiting to be invited formally to be part of the EE process. Twenty-three percent of the respondents maintained that they could only participate in the EE process if they were employed on a full time basis on the ANR programs to enable them earn a salary at the end of the month. A further 20% of the respondents stated that they were merely not

interested in the environmental programs while the remaining 3% suggested that they could not just find the time to be involved in environmental programs. They said the time they had was used to go and search for food for their families. There was a general feeling among the refugees who had not participated in any environmental programs that environmental issues were not very important. They looked at environmental issues as secondary to other activities, which they said, were concerned with ‘putting food on the table’ for their families. Alternative EE methods were therefore needed to change this perception the respondents had.

6.1.6 *Suggestions Made by Respondents for Improving the EE Process at Kala Camp.*

The respondents were asked what they would have loved to be included in the EE process so that it could be improved and below is a diagram representing their responses.

Fig 8. Respondent’s suggestions for EE improvement

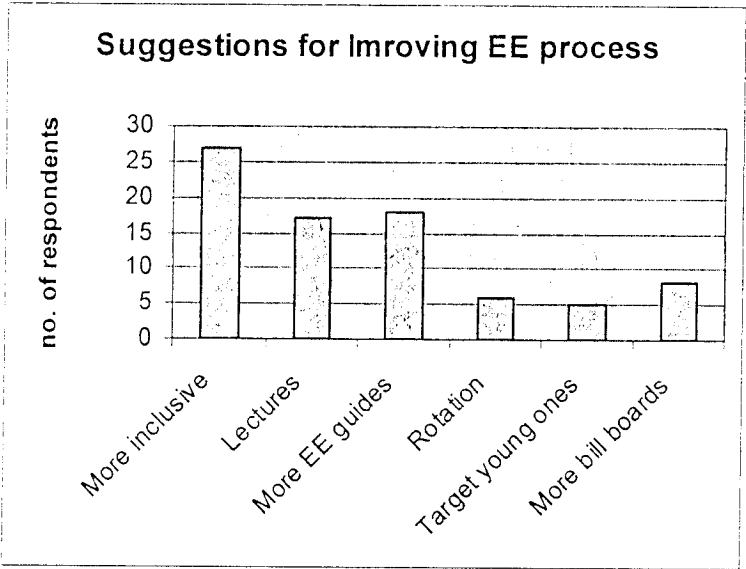
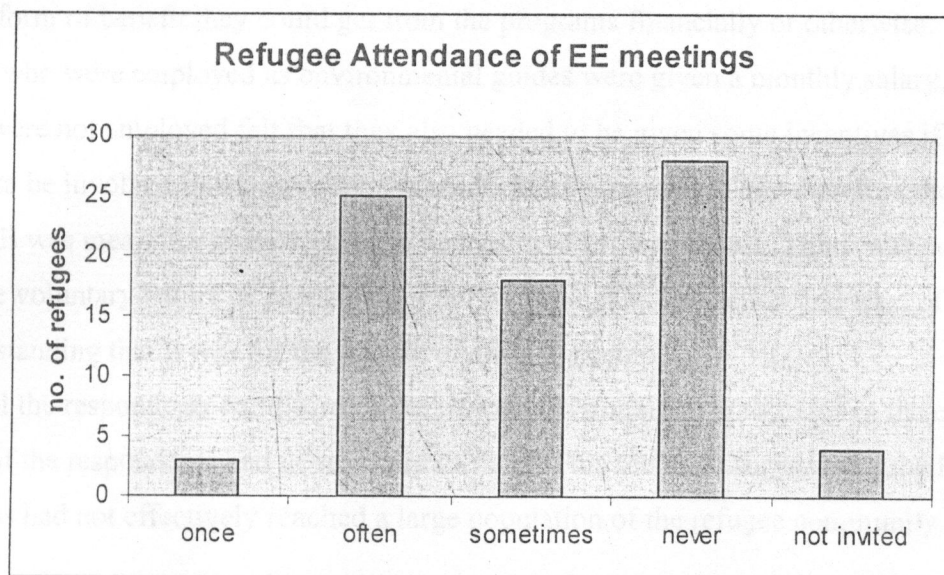


Figure 8 above represents suggestions from the respondents on how the EE process in the camp could be improved. The most prevalent response made was that the EE process should be more inclusive. The respondents felt that there was a need to deliberately

include more refugees in the EE process apart from those who were environmental guides and were employed on a full-time basis by the WVZ/ANR. The respondents felt that those who were employed on full time did not want others to be part of the EE process because they did not want others to benefit from the process. The aim of EE, which is scholarly regarded to be environmental sustainability, was not, in this instance, of concern to the respondents because they were themselves only looking at what they could get out of the process. In other words, respondents wished for an EE process where they could directly benefit in one way or the other (tangible, concrete benefits) rather than in issues of environmental sustainability (abstract and intangible benefits). This was the major reason why some of the respondents suggested that there should be a rotation of environmental guides so that as many refugees as possible could have the opportunity to work as environmental guides.

There was a suggestion from 20% of the respondents that there should be open lectures and workshops tackling various environmental issues to be held for the general populace of the camp. At the time of the research, the ANR was only inviting section leaders of the camp to such workshops. According to the respondents, the section leaders who participated in the workshops were not relaying the information that they acquired to the other members of their sections whom they were representing. There were other days, however, when EE meetings were open to the whole community, and usually it was on special days like the world Environment Day and the World Refugee Day. The respondents were, in this regard, asked how often they attended such meetings. The chart below gives their responses.

Fig 9. Attendance of EE meetings by Respondents of Kala camp.



As seen from Figure 9, the highest number of respondents said that they had never attended any EE meetings. These accounted for 35% of the respondents. Only four respondents said they could not attend because they were not invited while three said that they had only attended the meetings once. The above data shows poor attendance of EE meetings by camp residents.

The respondents were also asked whether or not they found it easy to follow the EE programs in the camp. The results showed that sixty-five out of the total eighty-one respondents said they found it easy to follow the EE programs, representing 81% of the sample. The remaining sixteen respondents (19%) said they found it difficult to follow the EE programs. It, therefore, remained puzzling to understand why the EE programs which were easy to follow by the majority of the respondents were not appreciated by the respondents as was seen in the levels of attendance. This shows that the easiness of a programme like EE was not by itself a guarantee that it would attract high levels of attendance to its meetings. Perhaps the reverse could be true, where respondents would rather be attracted to attend challenging EE processes.

The data obtained from the questionnaires seem to suggest that the refugees as represented by the respondents did not appreciate environmental education programs that

were being implemented in the camp. Instead of looking at what the environmental programs were seeking to achieve, the respondents were more occupied with knowing what form of benefit they could get from the programs financially or otherwise. Since those who were employed as environmental guides were given a monthly salary, those who were not employed felt that they also needed to be given some incentives if they were to be involved in the environmental education programs. They therefore thought that EE was meant for those who were benefiting from the process. There was no regard for the voluntary nature of participating in Environmental Education and least of all, the understanding that it was for the benefit of all in the camp.

Not all the respondents had heard of the various environmental programs in the camp, 41% of the respondents had never heard of them. This seems to suggest that the EE process had not effectively reached a large population of the refugee community.

6.2 Views from Key Informants on EE in Kala Camp.

This section presents information that was obtained from key informants who were interviewed. These were the Coordinator of the ANR sector of WVZ, the Refugee Officer, the Environmental Officer of the ANR sector and the Environmental focal person among the refugees. These interviews were also extended to the coordinators of the Eco-clubs in the schools around the camp.

According to Musonda (July 2005, Pers.com) the refugees were predominantly from one cultural and ethnic group, the Tabwa ethnic group of the DRC. This was confirmed by the environmental focal person among the refugees who himself was a refugee. The latter respondent said that the other ethnic group, the Bembe, only accounted for about 2% of the total population of the refugees at the camp. This meant that when it came to categorizing the refugees in terms of their ethnic and cultural background, they could almost be put in the same brackets with the Tabwa. This decline in the number of new arrivals to the camp, which was noticed in the data from the questionnaires, was confirmed by Musonda (July 2005, pers.com) who stated that his office (Office of the Refugee Officer) only recorded three new arrivals between January and June 2005.

The office of the Refugee Officer puts environmental concerns into consideration when determining the capacity of any refugee camp (Musonda July 2005, pers.com). The capacity of Kala camp was determined to be 25,000, which had not yet been reached at the time of the research. Demographic data obtained from the Office of the Refugee Officer showed that there were 22,133 refugees at the time of the research and, according to Musonda (July 2005, pers.com), they did not expect to have environmental problems linked to population factors considering the population size that was at the camp.

According to Funga (July 2005, pers.com) it was difficult for the refugees to appreciate the environmental programs unless they (refugees) worked with the section leaders. Funga further acknowledged that the majority of the refugees at the camp had only gone up to primary education, a factor he said made the dissemination of information very difficult because of poor reception from the refugees linked to low absorption rates. The community working together with the UNHCR and the government through the Office of the Refugee Officer selected the section leaders in the camp. This was done to ensure transparency in the selection process.

Funga (July 2005, pers.com) further noted that the refugee community was generally difficult when it came to work that was voluntary in nature, or joining clubs and doing environmental work because there was no money involved. He further said that the attitude of some of the refugees was that they could not work because they came to the camp to be looked after and, therefore, could not engage themselves into whatever form of work environmental or otherwise. This attitude made the work of the ANR very difficult, as environmental programs are participatory in nature. This point raises the whole issue of 'participation' in environmental programmes into question. Many scholars among them Sinclair (1999) and Chanda (2000) uncritically propagate the notion that participation is a must if EE programmes are to succeed. But the case of Kala camp as shown above illustrates the point that one's present predicament or position, in this case as a refugee, breeds certain attitudinal dispositions which make automatic participation in EE processes not so easy.

6.2.1 *Establishment of 'Mazingira'*

World Vision Zambia through its Agriculture and Natural Resources sector operated an office at the refugee camp that employed twenty refugees in its different programs. In the refugees' native language this group that dealt with environmental issues was called 'Mazingira'. The term 'Mazingira' itself means "environment" in the local language but the term was widely used and accepted to refer to the "environmental team".

The Mazingira group was tasked with all the environmental programs, ranging from EE patrols to rehabilitation works of environmentally degraded areas. According to Funga (July 2005, pers.com) the 'Mazingira' was established after a workshop that ran for four weeks. The workshop was designed to sensitize the participants on a variety of environmental issues and was conducted by consultants from the Southern Alliance for Indigenous Resources (SAFIRE), a Zimbabwean-based Non-Governmental Organisation (NGO). The refugees that participated in this workshop were the ones who were employed by WVZ to start the 'Mazingira'. There were, however, contractual jobs related to environmental work which other refugees were free to apply for. Priority for these jobs was mostly given to refugees who were in different voluntary committees as a way of motivating them. According to Kasongo (July 2005, Pers.com) the locals (Zambians) were also invited to some of the workshops for the 'Mazingira'.

6.2.3 *Coordination with Other Implementing Partners (IP's)*

According to Kasongo (July, 2005, pers.com) other IP's in the camp were also planning to incorporate environmental programs in their projects. The IP's included, HODI, Aktion Afrika Haife, Right to play and the World Food Program. The different IP's in the camp met once every four weeks in an effort to chart the way forward for the camp and environmental issues featured prominently in such meetings. A task force on the environment was also formed comprising people from different IP's (Kasongo July 2005, pers.com). Sometimes, however, there were areas where conflict of interest would arise. For example, Right to Play, an IP whose main activity was to promote different games

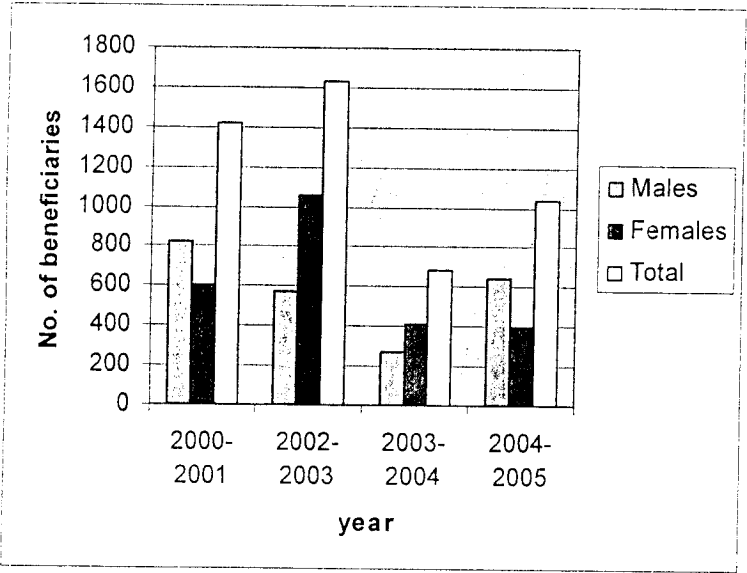
among the refugees, started cutting trees on an area that was identified as a potential bee keeping area by the ‘Mazingira’. This was, however, resolved and Right to Play had to halt its activities in the area. Conflicts like the one above would sometimes arise but the IP’s agreed to put environmental issues ahead of issues that had to do with leisure.

6.2.4 *Environmental Education in the Agricultural sector*

Mutebi (2004) points out that, for refugees as for villagers anywhere, subsistence farming forms a vital safety net as it provides a degree of food security. In general, farming as a livelihood strategy is more important for the refugees just as it is for the host communities.

ANR of WVZ integrated EE in agriculture as a way of promoting sustainable agriculture. Agriculture in the camp was the most important economic activity because it supplemented the dietary needs of the refugees. Environmental Education started from the time the refugees were given their farming plots as the refugees were told on how to manage the farm plots in a sustainable way. The refugees were also taught about the importance and usage of compost manure on their gardens that were located on the Samba and Kala rivers. According to Mwale (July 2005, pers.com) in the year 2004 a total of 1152 families had gone to get free seedlings from the ANR. This data is shown in Figure 10.

Fig 10. Agricultural sector beneficiaries in Kala Refugee Camp by years



Apart from the family units that are represented in the chart above, other refugees had formed special clubs, especially women who owned vegetable gardens and benefited from the programme. As part of EE, the refugees were also taught about the importance of planting *Sesbania sesban* and *Gliricidia Sepium* on their farm plots, plants, which fix nitrogen back into the soil. A major activity that was promoted by the ANR was the Permaculture program. According to Funga (July 2005, pres.com) the progress that was made in the Permaculture program was notably slow. This was echoed by Mwale (July 2005, pers.com) who said that there were few households that had implemented the Permaculture program around their homes, but was also quick to point out that those that had done so had made steady but good progress.

6.2.5 Refugee Participation

According to Mwale (July 2005, pers.com), some refugees were involved in activities that had to do with environmental issues. These refugees were involved either as environmental guides or extension workers. During the workshops that were held, specific target groups were identified so that those groups would, in turn, help disseminate the information to other refugees. The camp-based environmental task force also comprised key refugees from different sectors who would come up with some environmental action plan. Both Mwale and Kasongo (July 2005, pres.com) pointed out that the ANR sector had a deliberate policy to employ more females as environmental guides and extension workers. This, they said, was because there were more female-headed households in the camp and that women had shown higher levels of responsibility compared to their male counterparts.

In an effort to involve the youths in the EE process, the ANR sector ran Eco-clubs in the six schools of the camp. The sector held meetings with members of the Eco-clubs once every month. The general complaint that came from pupils who were not members of the clubs was that membership to these clubs was not open as the teachers in charge of the clubs chose the pupils to belong to these Eco-clubs. This situation went against the principle of inclusion, which sought to include as many people as possible in the EE

process. Another related issue to note here is that there was no program to target the youths who were not in school. The youths who were not in the school system were not catered for in spite of the recognition that youths were an important element in the whole EE process.

6.2.6 *Eco-clubs*

All the schools in the camp, including the only special needs school, had Eco-clubs. These clubs were basically environmental clubs, which spearheaded environmental issues in the schools. This section looks at some of the activities that these clubs were involved in and how they went about these activities.

The clubs were concerned with tree planting activities around the surroundings of the school as well as keeping the general surroundings of the school clean. There were also seminars that were conducted on various environmental issues and members of the Eco-clubs were invited to these seminars as participants so that an enabling environment for capacity building could be built. In the schools, the leaders of the clubs were sometimes given twenty minutes to talk to fellow students on their various environmental programs during assembly.

The clubs were also responsible for maintaining the schools' orchards and gardens in an environmentally sustainable way. In this way, the members of the clubs were learning how to take care of their immediate environment.

It was revealed that only three out of the six schools engaged in the use of role-play and sketches in the dissemination of environmental information. The only environmental message that was displayed on a billboard in the school area was on AIDS but there was no billboard with a message on the physical environment. There was also lack of knowledge among the pupils on how to rehabilitate degraded areas as explained below although this was one of the major areas of intervention by WVZ. At one of the schools, the head-teacher admitted a degraded area where they used to get soil for brick molding for the school projects was a potential disaster area and that they had recorded two accidents at the time of the research.

The clubs also had a desired number of pupils of 30 to be in the clubs and the teachers chose the pupils who could be part of the club until that desired number was reached.

This meant that pupils who had a burning desire to be members of the Eco-clubs but were not picked by the teachers could not be part of the clubs' activities.

6.3 Problems and Barriers

This section looks at the environmental problems and barriers to smooth implementation of environmental programs that came out prominently in interviews with the noted key informants, and some of the suggestions they made on how they were trying to address these problems and barriers. Other problems presented in this section were those observed by the researcher during his fieldwork.

The first environmental problem that was mentioned was that of land degradation. As the camp was expanding, refugees were building more houses, shops, and so on. This, in turn, meant that more pits were dug around the camp for purposes of brick molding. Some of these areas were left degraded without any rehabilitation. This problem was aggravated by the fact that there were no anti hills in the camp where the soil for brick molding could be obtained.

The problem of deforestation was another big environmental problem that the ANR had to deal with just from the inception of the program (Mwale, July 2005, pers.com). After noticing that forests were being depleted, forest patrols were instituted. The refugees depended on wood fuel for their daily living and so it was very difficult to deal with the problem of deforestation. The refugees were allocated areas where they could go and harvest trees for firewood. This, however, did very little to help solve the problem of deforestation as certain refugees could be caught by the patrol team cutting trees in restricted areas.

The farm plots that the refugees were given also experienced some indiscriminate cutting of the trees that were there, leaving the plots susceptible to soil erosion. Other refugees were cutting down trees for purposes of producing charcoal, which they intended to go and sell in the Zambian communities.

Culture was identified by the key informants as one of the major barriers to the EE process. It was argued that the refugees had a bad attitude when it came to involving

themselves actively in the EE process. The refugees felt that they came to Zambia to be looked after and so all that was supposed to be done to improve their livelihood, environmental or otherwise was supposed to be done by their hosts. There was lack of respect for ecological integrity among the majority of the refugees. As already noted earlier on, many refugees could not involve themselves in the EE process or even implement what the process was advocating for because they were not benefiting anything financially or otherwise from the process. Since EE is voluntary in nature, this made the response to the EE programs very poor. One of the refugees told the researcher that, since the UNHCR has a logo with a person without arms on it, it meant that the refugees were as good as a people without hands and could, therefore, not participate in any EE activities. Instead, they expected to be given everything free of charge. This point raises several issues. Firstly, the logos used by institutions are message carriers which, sometimes, convey unintended but important messages. There is need therefore to be critical of logos and subject them to scrutiny. Second, refugees, like anybody else, are thinkers who interpret the mundane world (of objects, institutions, activities, and so on) around them in a critical manner. The lack of participation in EE among refugees as illustrated in this particular scenario has another dimension, which is different from that noted page 59-60. Here, the UNHCR logo was a factor. This suggests that refugees with this mindset expected some other people to hand over to them an ecologically stable environment without the refugees themselves participating in what could bring about such an ecologically stable environment.

There was also evidence from the responses of the refugees that the mud stove and Permaculture projects had received little support from the refugees. Members of the refugee community that had mud stoves had these made for them by members of the 'Mazingira' team. This was despite the team going round the camp to teach the refugees how to construct the stoves for the sole purpose of building capacity among refugees themselves so that those who learnt how to do the stoves could, in turn, teach other refugees. There was unwillingness to learn on the part of the refugees.

The Permaculture project had also suffered the same fate as the mud stove project. There was of apathy to implement the Permaculture initiative around the house yards in the

camp by the refugees. This was despite seeing the benefits of Permaculture from those who had implemented it. Those that had implemented it had increased crop production, which led to surpluses in their production. The surplus meant that they were selling the products to the other members of the refugee community. This, however, could not do much to motivate others who were not implementing it.

Kasongo (July 2005, pers.com) pointed out that the refugees had difficulties in making changes to the way they did things, even those things that had a direct positive impact on the environment. Some of the refugees had not accepted their status and were not willing to help improve the conditions of the environment in which they lived.

In summary, this section has identified that both the implementing agent and the learner had change something in their approach to EE process in order to improve the EE process at Kala camp. In this vain, the next chapter makes some recommendations on how the EE process could be improved at Kala camp.

CHAPTER SEVEN

SUMMARY, CONCLUSION AND RECOMMENDATIONS.

This chapter gives a summary of, and conclusion to, the findings of the study. The chapter tries to answer the research questions in relation to the outcome of research analysis. The practical implications of the study are also discussed in this chapter. The chapter further gives recommendations, which could act as a guide to future implementation of EE in Kala camp. This may contribute in ensuring that the EE process in the camp becomes more participatory and effective than was the case at the time of the research. In conclusion, the chapter gives suggestions and implications for future research.

The overall objective of the research was to evaluate the EE methods that were being implemented at Kala refugee camp by WVZ. This was to be achieved by answering the research questions which were centered around finding out the EE methods which were being used to educate refugees of Kala camp on various environmental issues; what had been some of the positive as well as negative impacts of the EE methods as well as ascertaining whether or not there was any room for some additional versions of EE at the camp.

7.1 Summary of Findings

There were basically five methods, which WVZ were using in their EE process at the camp. The first method was that of disseminating environmental messages through billboards. These billboards carried various messages aimed at sensitizing the refugee community on different environmental issues. The messages on the billboards were written in the refugees' own local languages. There were a total of eight billboards in the camp and, according to the refugees, the messages on these billboards were clear and precise. The billboards were regularly maintained by the WVZ/ANR sector.

The second EE method that was employed was the use of seminars and workshops on environmental management which were targeted at building the capacity of refugee

environmental workers who, in turn, were expected to educate their fellow refugees on the various environmental issues, which they were sensitized on. These workshops and seminars were sometimes targeted at section leaders in the camp. However, the trickle down method that the workshops and seminars had hoped to achieve in the dissemination of information had in fact, failed to work. It was either the refugees were not willing and ready to listen from the workshop participants or, in other instances the workshop participants did not bother to educate their colleagues. The latter situation could have been as a result of the former.

The other method that was used may simply be called the field-based Environmental Education. In this case, the refugees were taught about good environmental practices in the field as they went to collect seedlings or as they were given their farm plots. The refugees were taught about how to care for the environment as they tilled the land, planted their crops as well as when and they tendered and harvested their crops. This method seemed to have worked well and the few refugees who had been reached through this method had responded to it positively.

WVZ was also using practical demonstrations in its EE process. Here, the most prominent practical demonstration was on how to construct a mud stove and demonstrating its effectiveness in wood fuel consumption. This was also meant to build capacity among the refugees so that they could learn how to construct a mud stove on their own and why it was important to use the mud stove. This method was also not as effective as it could have been. All the households that had mud stoves had their stoves constructed for them by the 'Mazingira'. The refugees did not seem to want to know how to construct the stoves even though they seemed to have known their importance in conserving the environment.

The research finding revealed some good working relations among the Implementing Partners in the camp when it came to environmental issues. The setting up of an environmental task force, which comprised members from different IP's, was a good, practical example of such good working relationships.

The study also found out that there was no strict adherence to the EE work plans that were set by the ANR each year. While some of the activities would successfully take place, other activities that were planned could not take root. For example, the planned environmental awareness workshop that was supposed to have been held in April of 2005 could not take place. Another example was the planned Natural Resource Management training, which was planned to take place in May 2005, which also could not take place.

7.2 Conclusion

Environmental Education is a very necessary and important process in refugee situations and in many other emergency operations. It is an important component of sustainable management of the environment. Environmental Education as a process is also normally supposed to be participatory in nature and should include the in-put of every one, women, young children, men as well as the elderly. To be effective, EE must incorporate both indigenous and modern knowledge. The saying 'we are all learners and educators' or that we are all 'learners and learned' when it comes to EE is true, as environmentally sustainable development can only come about when every individual realizes that they have an active role to play (ILO, 1993). There is need to increase people's sensitivity to, and involvement in, finding solutions to environment and development problems. This could be achieved by providing EE to special groups like refugees of Kala camp.

Environmental Education in an informal setting has its own challenges. These challenges presented themselves in the implementation of EE programs at Kala camp by World Vision. One of the major challenges was that of information dissemination. There were, however, several successes that were scored in the EE process at Kala inspite of a few challenges.

The research findings show a relatively good response to some field-based EE. The refugees who had responded to the field-based EE programs had implemented most of the EE recommendations. The woodlots, which were being managed by the refugee community, were doing very well and so were the farm plots and gardens. There was a

recorded increase in the number of refugees who were going to the nursery to get seedlings as well as information on how to manage their gardens. The Permaculture program could not, however, manage to stir interest in many refugees despite the relatively huge benefits that potentially come with it. This poor response to it could be due to the fact the Permaculture system requires a lot of input from the refugees to set it up, and as explained in chapter five, the refugees generally displayed a lack of willingness to get involved in activities that required them to sacrifice their energy and ✱ time.

There were few households around the camp that were implementing the Permaculture system. It was mostly those owned by environmental guides and extension workers. The refugees that were spoken to expressed unwillingness to get involved in the EE process or even to implement what the process was advocating for and they generally complained of isolation from the planning and implementation of the EE process. Some refugees spoken to had demanded that they should be invited personally for them to attend EE meetings or even to get involved in any EE activities. They further complained of discrimination in the selection of delegates to the EE seminars and workshops organized by WVZ. Much as it may prove to be very difficult to invite every refugee personally to get involved in the EE programs, there was need to deliberately create an atmosphere that would make the refugee to feel part of the whole process.

As much as there were some successes scored by the ANR, there was still a lot of room for scoring even greater successes. This could be done by coming up with a better package of EE methods that seek to include more refugees in the process as active rather than passive actors. For instance, versions of environmental action learning (EAL), which actively involved refugees in action, oriented EE need to be introduced on an experimental basis. There was also need to combine EE with civic education so that the refugees could better understand the roles and responsibilities that they would play in the whole EE process.

7.3 Recommendations

The UNHCR (1996) names institutional strengthening and further development environmental knowledge as two environmental measures that need to be applied to all phases of refugee assistance programs. Both of these measures need to be backed by recommendations on how they can be enhanced. This subsection, therefore, provides suggestions on how the EE process at Kala camp could further be improved. In this subsection, additional EE methods that could be employed to increase the effectiveness of the EE process at the camp are suggested.

- One of the points, which came out from the research, was that there were low levels of participation in the workshops and seminars. This was partly because of the selection criteria that the ANR was using in picking the participants to these seminars and workshops. To improve the dissemination of information, the ANR should look at inviting more ordinary members of the refugee community to these meetings than before. For example, if they had been getting one ordinary member of the refugee community from each section of the camp, it could have led to more people getting the EE message and consequently a rise in the levels of awareness on environmental issues among the refugees.
- There was also evidence of some lack of follow-up strategies to check on whether the participants to the workshops and seminars were implementing whatever knowledge they had acquired. The ANR should introduce follow-up meetings to check on the progress that the participants to the workshops and seminars were making in their efforts to educate others on what they had learnt.
- The staff at WVZ should take advantage of the presence of refugee employees in the ANR sector to learn more about the cultural practices of the refugees than has been the case before. This is because culture proved to be a big barrier to the smooth implementation of the EE process at the camp.
- Programs targeted at the youth should be introduced, especially those youth who were not going to school as they were left out from the opportunity to

learn more about the environment through school Eco-clubs. The out- of- school youths were a very important component in the EE process and, therefore, more deliberate programs targeted at them ought to be introduced than was the case.

- One of the Implementing Partners (IP's), HODI had used video shows effectively to raise the levels of awareness among refugees on issues of HIV and AIDS. This could prove to be an effective method in raising awareness about environmental issues among the refugees. The video shows on various environmental issues could be preceded by a talk on the issues that are addressed in the video. Additional arrangements for translation in the local language of the refugees can also be made to make information reception much easier.
- Role-playing could be another practical EE method that could be used to promote sound environmental management practices among the refugees. The method had already shown positive results in the fight against HIV/AIDS in the programs of HODI where it was being implemented. This method could be used both in the schools and in the community.
- Funds need to be allocated for a quarterly or monthly magazine or flier on environmental issues in the camp by WVZ. Such a magazine or flier should also allow refugees to freely contribute articles, ask questions and raise other issues pertaining to the environment. Due to the lack of buying power among the refugees, the magazine could be circulated free of charge initially and, most importantly, the magazine needs to be printed in refugees' own local language for easy understanding.
- Research findings showed that refugee respondents preferred to be invited to participate in EE activities. Since Kala EE activities showed some weak engagement with EE activities and stakeholders of EE outside the camp itself (e.g. associating with ZANEPP or EE at institutions of higher Learning like UNZA) there is need for networking the camp EE nationally, regionally and

internationally. Kala EE should not wait to be invited to participate in EE activities taking place at these levels or any other places for that matter.

- The findings of this particular study could be used to conduct a planning workshop, which can be funded, by the UNHCR or any interested IP.

In line with the findings of this study, the following areas of future research are suggested: -

(a) A study on a similar topic could take a comparative approach. Comparisons could be made on the effectiveness of EE methods in different refugee camps of Zambia. This would be possible because WVZ has its presence in other refugee camps of Zambia like Mwange where they were implementing similar EE programs.

(b) Future research could also endeavor to compare the response to EE in refugee camps that had additional support from the Zambia Initiative Project such as Mayukwayukwa and Maheba refugee camps to those that did not have additional support from such a facility, like Kala and Mwange camps. This would help assess how the Zambia Initiative Project was implementing the EE process.

REFERENCES

AFRONET (2001) *Zambia Human Rights Report*. AFRONET, Lusaka.

Basila, C., (2005), *Zambia Housing Scheme of the Mid-1990's; Have the Poor Really been Empowered?* Unpublished, Master of Philosophy Thesis in Social change, Norwegian University of Science and Technology, Trondheim, Norway.

Chanda, M., (2000), *Report on Emergency Education for Refugees in Zambia*. UNHCR, Lusaka.

Department of Education, (1993), *Environmental Education Curriculum Guide*. DOE, Queensland.

Galooba-Mutebi. F., (2004), *Refugee livelihood: confronting uncertainty and responding to adversity; Mozambican war Refugees in Limpopo Province South Africa*. UNHCR, Geneva.

Hakovirta. H., (1996), *The World Conflicts and Refugeeism; Dimensions, Dynamics and Trade of the World Refugee Problem*, Finnish Society of Science and Letters. Helsinki.

Jans Van Rensburg. E. (1999) *The Educational Response to The Environmental Crisis*. Rhodes University. London

Funga K., (2005) Environmental Focal Person. *Personal Communication*, July.

International Labour Organization (ILO), (1993), Introduction to Trade Unions and Environmentally Sustainable Development. *Workers Education and Environment project*. INT 93 /M12/NOR. ILO, Geneva.

Kabwela. C., (2006), "Spanish Legal Officer calls for Respect of Refugees' rights". The POST March 20. The Post Newspaper, Lusaka.

Kasongo. E., (2005), ANR sector coordinator. *Personal communication*, July.

- Kelly M.J., (1999), *Origins and Development of Education in Zambia From pre-colonial Times to 1996*. Image Publishers. Lusaka.
- Kim le Roux ,(2001), *Environmental Education Process: Active Learning Guide*, University of Natal press, Pietermaritzburg.
- Likando.L., (2005), 'Chief Justice calls for awareness among Judges in Environmental Law Issues' The POST. December 14. Post Newspaper Lusaka.
- Macalister-Smith (1985) *International Humanitarian Assistance: Disaster Relief Action in International Law and Organisation*. MNP Publishers, Boston.
- Melander. P. And Nobel. K. (Eds), (1978), *African Refugees and the Law*. The Scandinavian Institute of African Studies. Uppsala.
- Mikkelsen. L., (1995), *Methods for Development work and Research. A guide for Practitioners*. Sage Publications. New Delhi.
- Mwale J., (2005), Environmental Officer. *Personal Communication*. July
- Nhleko E., (2000), *Education Programmes in Refugee Camps in Kigoma and Kagara Regions of Tanzania*. UNHCR Dar es Salaam.
- Rwelamira M., (1990), *Refugees in a Chess Game: Reflections on Botswana, Lesotho and Swaziland Refugee policies Report no. 88*. The Scandinavian Institute of African Studies. Uppsala.
- Rwelamira M., (1990), *Refugees in Botswana in the Plight of International Law. Report No. 87* The Scandinavian Institute of African Studies. Uppsala.
- Non-Governmental Organisation Coordinating committee (NGOCC) (2004) *Report on the Situation of Women in Zambia During the Period 1999-2004*. NGOCC. Lusaka.

Sinclair M., (1999), *Refugee Education in the Mid-1990's*. UNESCO, London.

Sinclair M., (2005), *Education in Emergencies*. UNHCR, Geneva

Slater F. (Ed), (1991), *Societies, Choices and Environment: Refugees Problems and Prospects in the Late Twentieth Century*. John Rogge, Collins Educational. London.

World Vision Zambia (WVZ), (2004), *Environmental Report for Mwange Refugee camp*. WVZ. Mporokoso.

World Vision Zambia (WVZ), (2005), *Status Report on the Natural Resources/ Environmental Sector*, Kala Refugee Project. Kawambwa.

United Nations Education and Scientific Council (UNESCO), (1991), *World Education Report*. UNESCO Paris

UNESCO, (1976), *International Standard Classification of Education*. UNESCO. Paris.

UNESCO-PEER & UNHCR, (1999), *Environmental Pupil Booklets and Teachers guide, Grade 1 to 8, for Refugees in Ethiopia*. UNESCO-PEER, Nairobi.

United Nations Population fund (UNFPA), (2002), *The State of World Population 2001: Population and Environmental Change*, UNFPA, London.

United Nations High commission for Refugees, (2000), *Global Appeal 2000: strategies and Programmes*. UNHCR, Geneva.

UNHCR, (1994), *Environmental Management Within Refugee Operations: Training Module*. UNHCR. Geneva.

UNHCR,(1994), *Refugee Children Guidelines on Protection and Care*. UNHCR. Geneva.

UNHCR, (1996), *Environmental Guidelines*. UNHCR. Geneva.

UNHCR, (1951), *Convention Relating to the Status of Refugees*. UNHCR. Geneva.

UNHCR, (2003), *Refugees by Numbers*. UNHCR. Geneva.

UNHCR (PTSS), (1992), *Water Manual for Refugee Situations*. UNHCR. Geneva.

UNHCR (PTSS), (1994) *Technical Approach to Environmental Situations*. UNHCR Geneva.

UNHCR (PTSS), (1988), *Environmental Guidelines on Domestic Energy in Refugee Situations*. UNHCR Geneva.

UNHCR Zambia, (2004), 'Environmental Management' *News Letter No. 4*,.

WWW.UNHCR.ch.org . file// E:\environment.htm

APPENDICES

APPENDIX I

QUESTIONNAIRE FOR REFUGEES AT KALA CAMP.

Dear respondent,

I am a postgraduate student at the University of Zambia pursuing a Master of Education degree in Environmental Education. I am carrying out a research in partial fulfillment of my programme. In this regard, you have been randomly selected as one of the respondents. This is a purely academic exercise and all the information you will give will be handled with the confidence that it deserves, and it will be used only for academic purposes.

I thank you most sincerely in advance,

J. Chipili (student)

1 a. Gender Male Female

b. Age:

c. Marital status: Married Single divorced widowed separated

d. How many children do you have?.....

e. What is the level of your education?.....

2. When did you come to this refugee camp?.....

3. What is your country of origin?.....

4. What problems do you face in this camp.....

5. What economic activities are you involved in to support your livelihood and that of your family.....

6. Are you aware of any Environmental Education programmes that are being provided in the camp?

YES

NO

7. If the answer to the above question is yes what type of programmes are you aware of.

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

8. Have you heard of the World Vision Environmental Education programme...?

YES

NO

9. If the answer to the above question is yes, what programmes have you heard of?

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

10. Do you and your family participate in these programmes?

11.If yes in what way?.....

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

12.What suggestions do you have for improving the way Environmental Education is conducted at this camp?.....

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

13. Do you find it easy to follow the EE programmes that are implemented in the camp?

YES

NO

14. If the answer to the above question is no, please explain your answer.....

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

15. How often do you attend meetings on EE issues?.....

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

APPENDIX II

KEY INFORMANTS INTERVIEW GUIDE

Office of the Refugee Officer, Ministry of Home Affairs

POSITION: Refugee Officer.

1. When was Kala camp established and briefly explain the events leading to its establishment?
2. How many refugees was the camp initially planned to accommodate?
3. How many refugees does the camp currently have?
4. What are the main activities that the refugees are involved in to support their livelihood?
5. What is the role of the UNHCR at the camp?
6. What are some of the problems your organisation has been facing since the inception of the camp?
7. What Environmental considerations were taken into account when selecting the site of the camp?
8. Does your organisation work in cooperation with the World Vision in matters to do with environmental education? If so, in what ways?
9. Do you have any long-term plans for the camp? If so what are they?

APPENIX III
KEY INFORMANTS INTERVIEW GUIDE

World Vision Zambia

POSITION: ANR Coordinator

1. When did your organization come to this camp?
2. Do you provide EE lessons to refugees in the camp?
3. If yes, what methods are you using to educate refugees on environmental issues/
4. What has been the response of the refugees so far?
5. What are the main environmental problems the camp is facing?
6. Are the refugees involved in the environmental education process? If yes, in what ways?
7. What main difficulties do you face in trying to educate the refugees on issues to do with the environment?
8. How do you hope to address the difficulties/problems in educating refugees identified above?
9. What particular gender would you say is more responsive than the other to your environmental education lessons?
10. How are you incorporating the issues of sustainability in your environmental education process?
11. Which other refugee camp are you implementing the same EE programs?
12. How would you compare the response in this camp compared to other camps?

APPENDIX IV

Spontaneous Voluntary Repatriation Form

Telephone no.: 02-960077
E-mail: Salage@zanmat.gov.zm

In reply please quote
No:.....



REPUBLIC OF ZAMBIA

MINISTRY OF HOME AFFAIRS

Office of the Commissioner for Refugees
P.O. Box 730200
Kawambwa.

SPONTANEOUS VOLUNTARY REPATRIATION DECLARATION FORM

Date.....

I refugee card No.
Day of year have decided to undertake voluntary
repatriation to my country of Origin, accepting full responsibility for all the consequences
that may occur to me arising from this decision. I hereby relinquish all the protection and
other benefits that were accorded to me as a refugee in Zambia at Kala Refugee Camp.

I also give consent of voluntary repatriation to the following refugees:

NAME	AGE	SEX
1.
2.
3.
4.
5.
6.
7.
8.
9.

I promise to leave the country within 14 days with effect from the date stated above.

SIGNATURES:

Refugee.....

Refugee Officer.....

Cc: The HOSO - UNHCR
Cc: The HOSO -WFP
Cc: The DIO -Kawambwa

