A STUDY OF PRIMARY TEACHERS' ATTITUDES TOWARDS
ENVIRONMENTAL EDUCATION IN SOME SCHOOLS IN BURETI DIVISION
KERICHO DISTRICT

A PROJECT SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF EDUCATION
(PRIMARY TEACHER EDUCATION) OF
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BY

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DECLARATION

This project is my own original work and has not been presented for a degree in any other university.

CHERUIYOT, H.K.

This project has been submitted for examination with my approval as the University Supervisor.

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ABBREVIATIONS

EE - Environmental Education
KIE - Kenya Institute of Education
UNEP - United Nations Environment Programme
SEPA - Science Programme for Africa
BERC - Basic Education Resource Centre
DEDICATION

This work is dedicated to my wife Caroline Cheruiyot, my children Kiprotich, Chepkorir, Chepkoech and Chelangat. During my two years temporary separation they showed love, patience and understanding.
I wish to express my sincere gratitude to all those people who rendered to me assistance in one way or another in this study.

First and foremost, my special thanks goes to my supervisor Dr. Korir-Koech who I particulary feel indebted for his great contribution to the success of this project. I would also like to thank Kerich for his advice, suggestions and comments. I would like also to say thank you to all the academic staff who assisted me in one way or another.

Special thanks should also go to my parents who have sacrificed so much so as to educate me upto this level.

I am also indebted to Mr. A. Mugadili, A.E.O Bureti Division, the Headteacher and teachers of Tengecha Boarding Primary, Kapkatet, Kaptele, Chemoiben, Kapkisiara, Kimawit, Chesilyot and Kaplong Girl's Primary School for their co-operation. Thanks alot.

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VIII

ABSTRACT

The objective of the study was to find out attitudes held by Primary Teachers in Bureti Division towards environmental education. The study also aimed at finding out the following:-

i) Primary school teachers awareness on environmental issues.

ii) The opinions of primary school teachers on the introduction of environmental education as a separate subject.

iii) The problems encountered by teachers when teaching environmental education topics.

iv) The extent to which environmental education has been incorporated in the various subjects.

The study was carried out in eight schools in Bureti Division in Kericho District. The schools are Kaplong Girls Primary, Tengecha Boarding Primary, Kimawit, Kaptele, Kapkisiara, Chemoiben, Chesilyot, and Kapkatet.

Forty teachers were used for the study. There were thirty one male teachers and nine female teachers.

Instrument

One intrument was used to collect the information. This was a questionnaire which consisted of three sections. The questionnaires were completed by the forty teachers teaching science, agriculture and geography.
Findings

This study found out that:

i) 100% of the primary school teachers used for the study have positive attitudes towards environmental education.

ii) 92.5% of the teachers felt that environmental education should be taught at all levels of education in Kenya.

iii) 62.5% of the teachers felt that the objectives of environmental education in their various subjects were well stated but it requires sound participation both by the teachers and pupils for these objectives to be achieved.

iv) Majority of the teachers were aware of the major environmental issues.

v) There are various problems encountered by the teachers during the teaching and learning of environmental education topics.

On the basis of the findings, the following recommendations were made by the researcher:

- Environmental officers should regularly organize seminars and workshops so as to sensitize the teachers and pupils on major environmental issues.

- Teachers and pupils should participate fully in solving environmental problems.

- The Ministry of Education should develop materials for the teaching and learning of environmental education.

- There should be more stress on the objectives of environmental education in primary teachers colleges for the trainees to develop the correct attitudes.
There should be frequent and proper inservice courses for teachers in the field to enlighten them on the major environmental issues.
CHAPTER ONE

1.0 BACKGROUND OF THE PROBLEM

Stollberg, (1969) asserts that "teachers with a neutral or negative attitude can either avoid the teaching of science or pass this negative attitude along to the young". The author further concludes that unless the teacher is attracted towards science, all the content and all the teaching methods which he may have learnt can well serve no good purpose whatsoever. This therefore means that attitudes are important for the teaching and learning of any given subject. Teachers with positive attitudes towards any subject transmit these attitudes to their pupils and thus the objectives of the subject achieved.

Kamunge Report (1988) recommended that:

Education and training be used to develop positive attitudes and habits towards maintaining a clean and hygienic environment (Kamunge, 1988:15)

This means that for a clean and hygienic environment the society at large which include teachers and their pupils should have positive attitudes towards their environment. This can only be achieved by an environmentally literate society which can only be done through environmental education.

Kamunge, in his paper "policy in Regard to Environmental Education" presented to environmental education workshop at Kenyatta University on 23rd May, 1979, stated that:

In primary schools, the main objective of teaching science is for our children to acquire and preserve useful attitudes about themselves and their relationship with their environment. (Kamunge, 1979:5)
With this and other useful objectives, both the primary science and primary agriculture syllabuses have been designed to enable children develop skills, make observations and acquire information about their immediate environment through first hand experiences, be it living things, soil or weather or conservation.

The primary science syllabus gives three general aims of science teaching. These are:

1. That children acquire and preserve certain useful attitudes about themselves and their relationship with their environment.

2. That children acquire ways of seeking further knowledge and using this knowledge to solve problems we meet in modern life.

3. That children will acquire certain manual and thinking skills which are useful in solving practical problems.

From the general aim of science teaching [in which environmental education is incorporated], it is clear that primary science has the task of helping the pupils to acquire and preserve useful attitudes about themselves and their relationship with the environment.

Some of the objectives of geography for standard eight include the following:

a) identify problems in his environment
b) identify the potential and use of local resources
c) acquire and use skills for the study of the environment
d) acquire the correct attitudes and values for the conservation and improvement of the environment
e) understand the interdependence between man and his physical environment
f) utilize, manage and conserve the environment to meet individual
national and international needs

All the above objectives are meant to make the pupils environmentally literate and thus conserve and protect their environment. But for the present research, objective (d), to acquire the correct attitudes and values for conservation and improvement of the environment was a major concern for the researcher.

It has always been argued that a person's attitude to the environment is shaped throughout life. This means that education should be structured in such a way that it has an influence in that direction. To achieve such objectives, the teaching of environmental education should start from pre-school age and should continue through primary, secondary and higher education. If we can agree that there is a need for a more positive attitude towards environmental education on the part of the teacher, and if we can assume that attitudes are not innate but learned, then we must also assume that a positive attitude towards environmental education can be taught. This means therefore that it is the responsibility of the primary school teachers to transfer these attitudes to their pupils.

1.1 STATEMENT OF THE PROBLEM

Most educators agree that attitudes play an important role in the teaching and learning process. It is argued that attitudes formed early in life persist throughout life. Primary schools therefore seem to have heavy responsibility in helping create favourable attitudes towards subjects. The kinds of attitudes the teachers have towards school teaching subjects influence their approval to such subjects while teaching. A study of the kinds of attitudes the teachers have towards environmental education would reveal in part whether or not the teachers are ready to help the pupils develop positive attitudes towards their environment.
In the case of the study, the researcher found it necessary that we find out whether primary school teachers hold favourable or unfavourable attitudes towards environmental education as these attitudes are important for successful teaching and learning of environmental education. As it had been stated earlier, positive or favourable attitudes towards any given subject are essential for successful teaching and learning of that particular subject.

Specifically the study sought answers to the following:

1. Do primary school teachers possess positive or negative attitudes towards environmental education?
2. What are the views of primary school teachers towards the introduction of environmental education in primary teachers training colleges and thus in primary schools?
3. What are some of the problems faced by primary school teachers during the teaching and learning process of environmental education topics?

The study was therefore mainly concerned with the attitudes of primary school teachers towards environmental education as measured by a Likert-type attitude scale.

1.2 PURPOSE OF THE STUDY

The main purpose of the study was to analyse the attitudes of primary school teachers towards environmental education, their awareness of environmental issues and also study the problems encountered in the teaching and learning of environmental education topics.

1.3 OBJECTIVES OF THE STUDY

The objectives of the study included the following:
1. To determine the kinds of attitudes the primary school teachers have towards environmental education.

2. To investigate primary school teachers awareness on environmental education issues.

3. To investigate the opinions of primary school teachers on the introduction of environmental education in primary teachers colleges and thus in primary as a separate subject.

4. To study the problems encountered by teachers when teaching environmental education topics.

5. To study the extent to which environmental education has been incorporated in various subjects.

1.4 ASSUMPTIONS OF THE STUDY

Some of the basic assumptions of the study included the following:-

1. That the randomly selected teachers used for the study constitute a representative sample of teachers in the area.

2. That teachers selected have passed through formal schooling and training institutions and thus are aware of what environmental education is all about.

3. That the views given by the teachers are their own and not those meant to impress the researcher.

4. That sex has no influence on attitudes towards environmental education.

5. That teachers have formed and developed attitudes towards environmental education.

1.5 LIMITATIONS OF THE STUDY

1. Due to time limit and lack of enough funds, the researcher limited himself to eight schools and forty teachers which were
chosen randomly in Bureti Division.

2. The subjects were selected from those teachers teaching science, agriculture and geography. The generalizations are therefore based on the results obtained from those teachers teaching science, agriculture and geography.

3. The items in the questionnaire have not been standardized, thus generalization was made with this limitation in mind.

1.6 **SIGNIFICANCE OF THE STUDY**

1. A study of the kinds of attitudes the teachers have towards environmental education would reveal in part whether the primary school teachers are ready to help pupils develop positive attitudes towards their environment. If teachers have positive attitudes towards environmental education, then it will be assumed that those attitudes and interests are passed on to the pupils thus making them environmentally literate and active participants in environmental conservation.

2. If teachers have positive attitudes towards the introduction or teaching of environmental education as a separate subject, then the curriculum planners and developers should put this into consideration as this will enhance environmental awareness.

3. Teachers as well as curriculum planners and developers need to know whether those concerned with implementing the objectives of environmental education possess the prerequisite attitude. This may aid in devising many ways of improving these attitudes.
1.7 DEFINITION OF TERMS

Attitude: Katz, (1960) defined attitude as "predisposition of the individual to evaluate some symbol or object or aspect of his world in a favourable or unfavourable manner".
[Katz 1960:16].

Evans (1965) defined attitude as:
"an organized and consistent manner of thinking, feeling and reaching to people, groups, social issues or, more generally to any event in the environment" (Evans, 1965:3)

Oppenheim, (1966) defines attitude as:
"a state of readiness, a tendency to act or react in a certain stimuli" (Oppenheim, 1966:60)

For the purpose of this study, the attitude will be used to refer to the teachers' feelings, opinions and judgement on issues related to environmental education as defined by Katz and Evans.

Environmental Education: This is the process of awareness building and sensitization of environmental issues among various groups in the society.

Likert Scale: This is a scaling technique in which the respondents express their attitude towards a stimulus by choosing from a number of response categories. In the researcher's case the respondents were primary science, agriculture and geography teachers who expressed their attitude towards certain statements related to environmental education by indicating whether they strongly agree, agree undecided, disagree or strongly disagree with the statement.
2.0 LITERATURE REVIEW

2.1 ATTITUDES AND THEIR DEVELOPMENT

From the definitions given in Chapter One, the essential components of attitude are thoughts and beliefs, feelings and emotions and the tendencies to react. Oppenheim (1966) says that attitude is a state of readiness, a tendency to act or react in a certain manner when confronted with a certain stimuli, whereas Evans (1965) says that it is an organized and consistent manner of thinking, feeling and reacting to people, groups, social issues or to any event in the environment. This means it is a mental disposition of human individual to act in favour or against a definite object.

We can therefore say that an attitude is formed when thoughts and beliefs, feelings and emotions and the tendencies to react are so interrelated that specific feelings and reaction tendencies become consistently associated with the attitude object. Our attitudes develop in the course of coping up with and adjusting to our social environment. Once attitudes are developed they give regularity to our modes of reacting and they facilitate social adjustments. In the early stages of attitude development, the components can be modified by new experiences. Later, however, their organization may become inflexible and stereotyped - usually because we have been encouraged over long periods of time to react in standard ways to particular events or groups. As the attitude
becomes firmly set, we become too ready to categorise people or events according to emotionally toned patterns of thoughts so that we fail to recognize individually or uniqueness. Fixed or stereotyped attitudes reduce the potential richness of our environment and constrict our reaction.

Lambert, (1973) said that most people are likely to acquire most of their attitudes in the homes in which they are brought up. A large part of the education of children consists of training and conditioning them to their place in adult society and parents provide examples which are constantly before the children. Parental attitudes such as those towards the church or towards home visitors may be taken over by children and made their own and this is one way their influence may be exerted.

Although attitudes are acquired during childhood as a result of home influence, these are not necessarily immutable. If they were, schools would have very little chance of doing anything more than teaching academic subject matter and our concept a certain amount of education would be changed. Fortunately attitudes change and develop throughout life and helping in this process is an important part of the work of teachers and parents. It is important for anyone involved in education to know something of how attitudes can be modified and also this knowledge throws light on the ways in which attitudes can be inculcated. It is often easier to study a change in attitudes than its original development. Both teachers and parents affect the attitudes of children. The degree and nature of influence of teachers on pupils’ attitudes towards any subject will most certainly vary for different groups of pupils. The influence could also
depend on the varying attributes of teachers quite apart from their knowledge of their subject.

Chaitanova, (1983) said:

"Pre-school age is the most appropriate age when the first habits regarding the ecological education are got into, gradually and forever; those are the knowledge of nature, the skills to preserve it, the attitudes which determine the child's behaviour and the readiness to live and act in harmony with the requirements of nature" (Chaitanova, 1983:37).

He further explained that, the forming of an aesthetic attitude towards nature is not an unorganized process, however. This is why it starts form early childhood and is carried out under the guidance of the teacher. It is considered with increasing possibilities of the child. It becomes even more purposeful and profound, ever rich in content and closely bound up with the habits of preserving and enriching the environment. He went on to say that once positive attitudes becomes a habit, it will gradually develop into a vital necessity. Later in life, cognitive, aesthetic and moral motivation is formed, which will still acquire a social meaning. The task of the teacher involves the gradual formation of the basis of a socially oriented behaviour which included an irreconcilability with the regard to the careless attitude to nature. This means that the teacher play a central role in evoking the children's interest in the environment and for this to be achieved the teacher should have a positive attitude towards environmental education.
According to Evans, (1972):

"Attitudes produce patterns of behaviour. They determine what one will do or say in particular situations, what one will enjoy or dislike, his approach to other-people, and in the world around him. (Evans 1972:12)

It is generally agreed that attitudes are learnt. We form and develop attitudes in order to protect our self-esteem and to express our fundamental values. The school ethos are transmitted in one way or another by the teacher. The teachers are therefore important persons and models to the child. Inculcating desirable attitudes and interests and aiding their development is an important task of education.

Eshiwani (1986), in his paper "Science Technology and Women in Kenya" had this to say:

"The attitude hypothesis suggest that students who are positively motivated work harder than those who are negatively motivated and thus helps them to achieve higher. It follows that the low achievement observed among girls in science and mathematics could be explained partly on the basis of their attitudes towards these two subjects". (Eshiwani, 1986:15)

From these it can be argued that teacher's attitudes towards any given subject are important in the development of attitudes in their pupils. There may be many other factors affecting the achievement of pupils in various subjects. Seemingly one factor that has attracted the attention of many educators and researchers is the attitude towards subject matter. The need for positive attitude towards a subject is important because a relationship exists between attitudes and achievement. Although attitude may be important for the achievement of certain subjects, more than others, it is always important to know attitudes
towards all subjects. Positive attitudes will be conducive towards curriculum implementation. If attitudes are negative, steps can be taken to change attitudes of participants where possible or to revise the curriculum that is the object of dissatisfaction. In the present study, it is important to find out the prevailing attitudes of teachers towards environmental education. But this study was limited only to primary school teachers' attitudes towards environmental education.

2.2. LITERATURE RELATED TO ENVIRONMENTAL EDUCATION

UNEP Report (1988) stated that an environmentally sound and sustainable development require new attitudes particularly on the part of the largest resource consumers and a more realistic perceptions of the global and local ecosystems to which we belong. Through education and provision of public information, these new attitudes and perceptions are beginning to emerge and leading to a heightened environmental awareness.

The Tbilisi Conference Report, (UNEP 1977) also observed that environmental education can systematically promoted environmental awareness and thus the need to teach environmental education at all levels of education.

Kamunge, (1979) said that in teachers colleges, emphases has also been increasingly placed upon environmental education through development of "Activity Units" based on the science programme for Africa (SEPA). Kenya Science Teachers College has developed an environmental education
science course which is taught to all second year students as a compulsory course for one year. Its aim is to make students aware of their Kenyan environment which will help them pass on the knowledge and experience to the secondary school students. On the same vein it is assumed that teacher trainees in Primary Teachers Colleges should be taught environmental education so that they will be in a position to pass the knowledge and experience to their pupils which they are going to teach.

President Moi (1982), in the article "Environment and Development" in the UNEP Report "Voices in Defence of the Earth" said that there has to be a climate of support and understanding. He said that we must always carry people with us in whatever undertaken. The ultimate achievements in this context of sound environmental management will only be secured when appropriate values are instilled into the minds of the people. Towards this goal, we must rapidly introduce more effective programmes of information and education.

Environmental education is many things. Broadly it is an education process designed to increase individual awareness of, and concern about, the environment; a process which increases understandings of the environmental problems, biophysical, social, economic, political and more, a process which involves individuals directly in environmental problem-solving and decision making. Although approaches to environmental education remains constant, i.e. to develop "environmentally literate citizens" who possess skills, knowledge and motivation necessary to solve environmental problems. With increase in human population, it has become increasingly clear that, if environmental issues has to be tackled adequately, there is a need for more information regarding environmental
problems. This information can only be passed through environmental education at all levels of formal education and to the general public through informal and non-formal education settings.

Information must be presented in forms and at levels appropriate to different target groups. It should also be related to local situations since, by their very nature environmental problems and the choices to be made among often conflicting solutions are site specific. While forms of presentation may change, one and the same body of knowledge must be transmitted through both education and public information programmes. In fact environmental awareness, especially among school-age population is built up from an intricate combination of bits of information, some received through formal education and some from various communication media. It is therefore important that education and public information be both coherent and complementary. The main purpose of environmental awareness building is to develop particularly, but not only in the young people, the knowledge, attitudes and skills necessary to understand, appreciate and handle the relationships between human beings and their physical, bio-physical and socio-cultural environment. This purpose is not fulfilled by the current education and public information programmes.

Kamunge, (1988) reporting on "The Presidential Working Party on Education and Manpower Training for the Next Decade and Beyond" stated that:

"The government is concerned about the deterioration of the environment and the need for its conservation and improvement"(Kamunge 1988:15)
The government therefore established the Ministry of Environment and Natural Resources and the permanent President Commission on Soil Conservation, Water and Afforestation. In addition, there are non-governmental organizations e.g. the UNEP, United Nations Centre for Human Settlements and the Green Belt Movement whose efforts are towards conservation and improvement of the environment.

Environmental Education is taught in Diploma Teachers Colleges, at Moi University and currently at Kenyatta University, while primary and secondary schools teach it as part of some subjects in the curriculum e.g. science, agriculture and geography. However, there is an urgent need to intensify environmental studies in education and training institutions to educate the young people about the conservation and enhancement of the environment. Environmental education should therefore be made part and parcel of the education and training of education system in Kenya. Concerted efforts should be made by all teachers and organizations to educate the public on the importance of the environment and their specific roles in enhancing its protection and conservation.

As the human population increases our environment continues either to be degraded or depleted. We must therefore prevent this degradation of our environment at all costs for the present and future generation to inhabit an hospitable environment. It must be realized that environmental education is a fundamental process through which persons at all possible education levels become aware of and concerned with, the environment and its related problems, and acquire the knowledge, skills and determination to solve these problems. Children
acquire the foundation of a sound environmental attitude from an early age through the joint efforts of the family and the formal education institutions. The future perceptions of the children depends entirely on the active participation of the teachers and the community at large on tackling the environmental issues. The children should be encouraged to participate fully in solving environmental problems, as this is one way of internalizing their environmental awareness. They should be actively involved for them to grasp the concepts, develop skills and positive attitudes towards the environment. Environmental education must be passed to every member of the society and the most efficient way is through the formal education set-up whereby the teacher plays the central part. The teacher therefore must have the prerequisite attitude for him/her to transfer it to the younger generation, who must at all times be concerned about their environmental conservation and protection.

Dr. Korir-Koech (1987) in his paper to BERC seminar at Kenyatta University had this to say:-

"Through environmental education, every one can and must acquire knowledge and skills which will equip the individual to participate actively in all decision-making processes required in the environmental problem-solving exercises in this society". (Korir-Koech 1987:11)

Dr. Tolba, M. K., the executive director of United Nations Environment Programme, in the seminar on "Environment Information for Engineers, Paris 1982" on the "Youth Environmental Agenda", made the following statement about the children and the conservation of the
"There is another way in which children are different from adults. Given a chance, they have boundless energy and open minds. They can be powerful forces for positive changes in many fields including the environment" (UNEP: 1989 p.10)

Dr. Tolba, during the World Environment Day 1990, had this to say about children and their environment:—

"Young people are often among the first to understand the implication of the destruction of natural resources and to try to prevent it".

Many primary schools are located in areas where the environment continues to be destroyed either by man or nature, yet very little is being done to sensitize the young ones on these hazards. The children should be made aware of the consequences of environment degradation in future. This is one of the reasons why the researcher decided to find out whether teachers possess the right attitudes towards environmental education and their awareness of the environmental issues.
3.0 DESIGN OF THE STUDY

3.1 RESEARCH SAMPLE

The subjects for the study were primary teachers from Bureti Division in Kericho District. The teachers used were those teaching science, agriculture and geography. The rationale for using teachers teaching science, agriculture and geography is that there is more environmental education topics that has been incorporated in these three subjects compared to others. It was therefore the belief of the researcher that these teachers will give a more realistic attitude towards environmental education as they have been exposed to more environmental issues as they teach these subjects.

In Bureti Division, there are five educational zones. These are Kapkatet zone with eighteen (18) schools, Sotik with seventeen (17) schools, Roret with twenty one (21) schools, Litein with seventeen (17) schools. Two schools each were choosen randomly from Kapletundo, Kapkatet and Litein zones and one school each from Sotik and Roret zones. The total number of schools used for the study therefore were eight. These are Kaplong Girls' Primary (Sotik zone), Kimawit, Chesilyot (Kapletundo zone), Kapkisiara (Roret zone), Kaptele, Chemoiben (Litein zone), Tengecha Boarding Primary, and Kapkatet (Kapkatet zone).

The schools were choosen randomly by writing names of all the schools in the zone on pieces of paper. These papers were then folded and put in a container. A young child was asked to pick one of the folded papers. The school choosen was used for the study to represent
all the other schools in that particular zone. The same procedure was used to choose schools for the other zones.

Five teachers from each of the choosen school were also choosen randomly from those teaching the three subjects mentioned earlier. This means that in all forty (40) teachers were used for the study. These forty teachers were given the questionnaires to fill. There were thirty one male teachers and nine female teachers.

3.2 RESEARCH INSTRUMENT

The research project employed a questionnaire together the information for the study. The items in the questionnaire were intended to investigate:-

1. The attituded of primary school teachers towards environmental education.
2. Teachers opinions on issues related to environmental education.
3. Problems faced by teachers when teaching environmental education topics.

The questionnaire was divided into three sections.

Section A: Background information of the teacher. This include sex, teaching experience, the classes one is teaching etc.

Section B: This section consists of twenty (20) items on attitude towards environmental education based on Likert attitude scale.
The statements were meant to give an insight or feeling of primary school teachers towards environmental education.

Section C: This section consists of general questions on environmental awareness and views of teachers on the introduction of environmental education and also on problems of teaching environmental education topics.

3.3 ADMINISTRATION OF THE INSTRUMENT

The researcher administered the instrument personally with the assistance of the headteachers of the randomly selected schools. The personal administration of the instrument was considered an important factor in motivating the teachers to respond more readily than if the instrument had been mailed. Also it enabled the researcher to instruct the subjects on how to complete the questionnaires and assure them of the confidentiality of their responses.

The teachers were given at least two days to fill in the questionnaires which were then collected by the researcher himself.

3.4 DATA ANALYSIS

The information collected was analysed on the basis of the questions asked in the questionnaire. Since the purpose of the study was to find out the attitudes of teachers towards environmental education, the researcher will analyse the findings and consider the implications of the study.
The data was reported using appropriate tables where necessary. Simple descriptive statistics to find the significance of the study was used, e.g. the use of means and percentages.

3.5 **SCORING**

The positive items or those items that indicate positive attitudes towards environmental education was scored along the following scale:

- **Strongly Agree** - 5
- **Agree** - 5
- **Undecided** - 3
- **Disagree** - 2
- **Strongly Disagree** - 1

The order was reversed for the negatively stated items.

The total score for each respondent for all the items was calculated. The maximum a respondent could score was 100 and the least one could was 20. The average score therefore

\[
\text{will be } \frac{100 + 20}{2} = \frac{120}{2} = 60
\]

This means that the subjects who scored above 60 have positive attitudes towards environmental education whereas those who scored below 60 have negative attitudes towards environmental education.
CHAPTER FOUR

4.0 ANALYSIS AND PRESENTATION OF DATA

4.1 INTRODUCTION

The study involved forty (40) primary school teachers who are teaching science, agriculture and geography. Among these teachers thirty one (77.5%) were male teachers and nine (22.5%) were female teachers. These teachers were chosen randomly as explained in chapter three. These teachers were given the questionnaires to complete. In the questionnaires, the teachers were to give their background information in section A, in section B, they were to give their opinions on various aspects of environmental education that would reflect their attitudes towards environmental education and in section C, they were to give their views on the objectives of environmental education, the problems encountered in the teaching and learning of environmental education and also to list some topics in their areas that are related to environmental education.

The results obtained from the questionnaires are the ones discussed in this chapter.

4.2 RESULTS FROM THE QUESTIONNAIRES

In this section the researcher is going to discuss the results obtained from the questionnaires that were completed by the teachers.
Table I below shows the teaching experience of the teachers that were used for the study:

<table>
<thead>
<tr>
<th>Teachers Teaching experience</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Years</th>
<th>Number of Teachers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 5</td>
<td>10</td>
<td>25%</td>
</tr>
<tr>
<td>5 - 10</td>
<td>17</td>
<td>42.5%</td>
</tr>
<tr>
<td>10 - 20</td>
<td>9</td>
<td>22.5%</td>
</tr>
<tr>
<td>Over 20</td>
<td>4</td>
<td>10%</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100%</td>
</tr>
</tbody>
</table>

It can be observed from the table above that on the general teaching experience of the teachers provided in the questionnaires, they varied from less than five years to over twenty years. The majority of the sample were those who have taught for between five (5) and ten (10) years i.e. 42.5% of the whole sample.
The researcher found out that all the three subjects areas were covered i.e. at least there were teachers teaching either of the three subjects (science, agriculture and geography).

From the questionnaires, the researcher observed that on the teachers professional qualifications they varied from untrained teachers to SI teachers with the majority 65% being PI teachers. This therefore shows that all the categories of teachers were covered.

The researcher also observed that both the lower and upper classes were represented. This was so because in the sample there were teachers teaching standard one and also there were teaching standard eight. The sample was therefore fairly representative in the sense that the two categories of classes was covered.

In Part II of the questionnaire, there were twenty (20) statements. These items were related to environmental education issues. The teachers were to give their opinions on these issues. The teachers were either to agree or disagree with the statements. Some of the items were positively stated and others were negatively stated.

The scoring of the items has already been discussed in chapter one. For the positively stated items – Strongly agree = 5, Agree =4, Undecided = 3, Disagree = 2 and Strongly disagree = 1. For the negatively stated items – Strongly agree = 1, Agree = 2, Undecided = 3, Disagree = 4 and Strongly disagree = 5.
The scores for the twenty items for each respondent was added. And as it has been explained earlier in Chapter One, the minimum a respondent could score was twenty (20) and the maximum one could score was hundred (100). The average score therefore was sixty (60). Therefore those who scored above sixty(60) were regarded as having positive attitudes towards environmental education and those who scored below sixty(60) were regarded as having negative attitudes towards environmental education.

The table below shows the results of the teachers scores on the attitude items in Part II of the questionnaire.

**TABLE II**

*Teachers' Scores*

<table>
<thead>
<tr>
<th>SCORES</th>
<th>NUMBER OF TEACHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>71</td>
<td>2</td>
</tr>
<tr>
<td>75</td>
<td>1</td>
</tr>
<tr>
<td>76</td>
<td>1</td>
</tr>
<tr>
<td>77</td>
<td>1</td>
</tr>
<tr>
<td>79</td>
<td>2</td>
</tr>
<tr>
<td>80</td>
<td>3</td>
</tr>
<tr>
<td>81</td>
<td>3</td>
</tr>
<tr>
<td>82</td>
<td>5</td>
</tr>
<tr>
<td>83</td>
<td>3</td>
</tr>
<tr>
<td>84</td>
<td>3</td>
</tr>
<tr>
<td>85</td>
<td>3</td>
</tr>
<tr>
<td>86</td>
<td>5</td>
</tr>
<tr>
<td>87</td>
<td>4</td>
</tr>
<tr>
<td>88</td>
<td>2</td>
</tr>
<tr>
<td>92</td>
<td>1</td>
</tr>
<tr>
<td>93</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total** 40
From table II it can be observed that all the forty (100%) teachers scored above 60. They scored between seventy one (71) and ninety three (93). From these results, we can say that primary teachers teaching science, agriculture and geography have positive attitudes towards environmental education.

The table below shows the teachers' responses to the twenty attitude items in Part II of the questionnaire. As it was stated earlier, some items are negatively stated whereas others are positively stated. The teachers were to respond to these statements using the five categories i.e. Strongly agree (SA), Agree (A), Undecided (U), Disagree (D) and Strongly disagree (SD).
Table III
Teachers' Responses

<table>
<thead>
<tr>
<th>ITEM</th>
<th>RESPONSES (%)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Agree(SA)</td>
<td>Agree (A)</td>
<td>Undecided (U)</td>
<td>Disagree (D)</td>
<td>Strongly Disagree(SD)</td>
<td>TOTAL</td>
</tr>
<tr>
<td>1</td>
<td>85</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>77.5</td>
<td>22.5</td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>2.5</td>
<td>2.5</td>
<td>2.5</td>
<td>30</td>
<td>62.5</td>
<td>100</td>
</tr>
<tr>
<td>4</td>
<td>25</td>
<td>55</td>
<td>12.5</td>
<td>7.5</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>5</td>
<td>57.5</td>
<td>40</td>
<td></td>
<td>2.5</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>6</td>
<td>30</td>
<td>65</td>
<td>12.5</td>
<td>40</td>
<td>35</td>
<td>100</td>
</tr>
<tr>
<td>7</td>
<td>85</td>
<td>12.5</td>
<td></td>
<td></td>
<td>2.5</td>
<td>100</td>
</tr>
<tr>
<td>8</td>
<td>42.5</td>
<td>37.5</td>
<td>12.5</td>
<td>7.5</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>9</td>
<td>20</td>
<td>42.5</td>
<td>2.5</td>
<td>27.5</td>
<td>7.5</td>
<td>100</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>37.5</td>
<td></td>
<td>52.5</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>11</td>
<td>25</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>12</td>
<td>75</td>
<td>17.5</td>
<td>2.5</td>
<td>5</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>13</td>
<td>47.5</td>
<td>45</td>
<td>7.5</td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>14</td>
<td>50</td>
<td>15</td>
<td></td>
<td>10</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>15</td>
<td>17.5</td>
<td>40</td>
<td>7.5</td>
<td>27.5</td>
<td>7.5</td>
<td>100</td>
</tr>
<tr>
<td>16</td>
<td>7.5</td>
<td>62.5</td>
<td></td>
<td>30</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>17</td>
<td>75</td>
<td>22.5</td>
<td>2.5</td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>18</td>
<td>20</td>
<td>2.5</td>
<td></td>
<td>55</td>
<td>15</td>
<td>100</td>
</tr>
<tr>
<td>19</td>
<td>2.5</td>
<td>2.5</td>
<td></td>
<td>42.5</td>
<td>52.5</td>
<td>100</td>
</tr>
</tbody>
</table>

For easier analysis of the date obtained in Part II of the questionnaire, the researcher treated Strongly Agree and Agree responses together and Strongly Disagree and Disagree responses were treated together.
From table III above, it can be observed that the majority of teachers either strongly agreed or agreed with the positively stated items whereas for the negatively stated items, they either strongly disagreed or disagreed with those statements. For example item 1 and 2, all the teachers (i.e. 100%) were in favour of these positive items. The two items were stated as follows:-

Item 1: Every primary school leaver needs the knowledge of environmental education.

Item 2: Environmental education is good for our environment.

For the negatively stated items, the majority were not in favour of them i.e. they either strongly disagreed or just disagreed with these statements. For example item 12. 100% of the teachers were not in favour of it. Also item 17 which was also stated negatively, 92% were not in favour of this item. The two items were stated as follows:

Item 12: Environmental education is a waste of time in primary schools.

Item 17: The knowledge and skills achieved through environmental education are never applied to conserve our environment.

In all therefore, the researcher found out that the primary teachers teaching the already mentioned subjects do have positive attitudes.

On whether environmental education should be taught at all levels of education in Kenya, thirty seven (37) teachers (i.e. 92.5%) felt that it should be taught at all levels of education.
For item 10 which stated that "the content of environmental education included in my subject is shallow", twenty five (25) teachers (i.e. 62.5%) agreed with the statement. This reflects that more environmental education topics should be incorporated in these subjects or more stress should be put on the existing topics to make it more meaningful to the teachers and the pupils.

The table below shows the responses for items 1, 3 and 5 of Part III of the questionnaires.

**Table IV**

Teachers Responses for Part III

<table>
<thead>
<tr>
<th>RESPONSE ITEM</th>
<th>YES</th>
<th>NO</th>
<th>NO REPLY</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>30(75%)</td>
<td>6(15%)</td>
<td>4(10%)</td>
<td>40(100%)</td>
</tr>
<tr>
<td>3</td>
<td>28(70%)</td>
<td>7(17.5%)</td>
<td>5(12.5%)</td>
<td>40(100%)</td>
</tr>
<tr>
<td>5</td>
<td>24(62.5%)</td>
<td>8(20%)</td>
<td>7(17.5%)</td>
<td>40(100%)</td>
</tr>
</tbody>
</table>

Item 1 of Part III of the questionnaire had requested the teachers to indicate whether the importance of environmental education was stressed in the primary syllabus. From the table IV above, it can be observed
that thirty (30) teachers (i.e. 75%) felt that the importance of environmental education was stressed in the primary syllabus. But 15% felt that it was not stressed and the remaining 10% gave no response. Based on this and teacher's responses to the attitude items, it can be argued that the teachers are quite aware of the importance of environmental (EE).

Item 3 of Part III of the questionnaire had sought the opinions of teachers on the introduction of environmental education as a separate subject. From the table above 70% of the teachers felt that there was a need to introduce environmental education as a separate subject, whereas 17.5% were opposed to it. Most of those opposed to the introduction of EE as a separate subject, gave the reason as overloading the curriculum which was already overloaded. Instead they said that more stress should be put on environmental education issues.

Item 5 of Part III of the questionnaire had requested to indicate whether the objectives of environmental education in their various subjects were well stated or not. From the above twenty five (25) table (i.e. 62.5%) of the teachers said that the objectives of EE were well stated in their subjects. Although the majority of teachers felt that the objectives of EE were well-stated and were meaningful, they said that for these objectives to be achieved, it requires sound participation both by the teachers and the community at large.

When responding to item 4 of Part III of the questionnaire which had requested them to list some of the topics related to environmental education the teachers gave various topics. Some of the topics include
the following:

- Water, soil, forest and wildlife conservation
- Soil, water and air pollution
- Soil erosion
- Recycling of materials
- Afforestation and deforestation
- Population

From the above and other topics not listed but were given by the teachers, we can say that the teachers are aware of some of the major environmental issues.

Item 5 of Part III of the questionnaire requested the teachers to list down some of the problems which they encounter during the learning and the teaching of environmental education topics. The problems included the following:

- Time is limited for practical work, thus environmental education topics taught theoretically. This encourages rote learning which does not address itself to practical environmental conservation measures. Others felt that teachers were lacking practical skills.
- The source of information and teaching aids are lacking. For example the reference books, visual aids and other teaching materials, thus environmental education topics are not covered as is required.
- Lack of knowledge and skills to tackle environmental education topics. Some teachers are not aware of the current environment problems e.g. pollution, deforestation etc.

- There is limited or superficial coverage of environmental education topics due to congested syllabus. Some felt that some irrelevant topics in their subjects should be scrapped out so as to give room for deeper coverage of environmental education topics as they are more relevant to our environment.

- There is lack of land for practising conservation programmes.

- There is lack of funds to carry out practical activities related to environmental education. For example there is no money to transport pupils to places where environmental degradation has taken place e.g. to areas where erosion has taken place or deforested areas. This is important for the pupils and teachers to visualize and appreciate the importance of environmental education and thus the need for environmental conversation and protection.
5.0 DISCUSSIONS, IMPLICATIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

It should be stressed once more that environmental education is very important in Kenya and especially for children in primary schools. This is so because the children will live longer and therefore will have longer time to conserve the environment. It must be realised that environmental education is a fundamental process through which persons at all education levels become aware of, and concerned with, the environment and its related problems, and acquire knowledge, skills and determination needed to solve these problems. Children acquire the foundation of a sound environmental attitude from an early age through the joint efforts of the society and the formal education set up. It is the primary schools where the attitude and awareness towards the environment is established. If this is achieved the pupil may continue respecting and protecting the environment. The future perceptions of the pupils depends entirely on their teachers.

The findings in Chapter IV relate to the following:

i) The general teaching experience and their professional qualifications.

ii) Primary teachers attitudes towards environmental education.

iii) Extent to which environmental education has been incorporated in the various subjects.

iv) Primary school teachers awareness on environmental issues.

v) Introduction of environmental education as a separate subject.
vi) Objectives of environmental education as it relate to primary syllabus.

vii) Problems encountered by teachers when teaching environmental education topics.

5.2 DISCUSSIONS

The findings reveal that the sample comprise of the long service teachers and those who have joined the profession. This is so because in the sample there were those who have taught for up to twenty seven (27) years and those who have taught for less than five years. This means that the results of this study is a reflection of a whole spectrum of primary teachers in Bureti Division teaching science, agriculture and geography.

From the results on the teachers' attitudes towards environmental education, all (100%) of the teachers had positive attitudes towards environmental education. It has been argued that positive or favourable attitudes towards any given subject are essential for the teaching and learning of that particular subject. From this study, it can be argued that teachers from Bureti Division in Kericho District do have positive attitudes towards environmental education. But the question is, do these teachers transmit these favourable attitudes to their pupils?

On environmental awareness, some teachers could not specify environmental issues in their subject areas although over sixty per cent could list more than four topics related to environmental
education. This might show that there are some teachers who are not aware of what constitute environmental education. This therefore may mean that teachers need workshops and inservice courses for them to be enlightened on various issues to be stressed during the teaching and learning of environmental education topics.

**IMPLICATIONS**

The findings of this research study confirms the following:

a) That primary school teachers teaching science, geography and agriculture in Bureti Division, Kericho District have positive attitudes towards environmental education.

b) That primary school teachers are aware of the various environmental issues. This is so as the majority could list the various topics in their subjects related to environmental education.

c) That more stress should be put on the importance and the objectives of environmental education.

d) That environmental education should be taught at all levels of education in Kenya.

e) That there are various problems encountered during the teaching and learning of environmental education as seen in Chapter IV.

**5.4 RECOMMENDATIONS**

From the findings of this research study the following recommendations can be made:

a) The District Environmental Officer and other environmental extension officers should regularly organise seminars and
workshops so as to sensitize teachers and pupils on environmental issues.

b) The Ministry of Education in conjunction with Kenya Institute of Education should develop material for the teaching and learning of environmental education in primary schools to alleviate some of the problems encountered in the teaching and learning of environmental education.

c) There should be active participation on both the pupils and the teachers in solving environmental problems. This can be done by the use of the local environment so as to sensitize them on environmental issues.

d) There is need for frequent and proper inservice courses for teachers in the field for them to develop favourable attitudes towards environmental education.

e) There is also a need for more stress on the objectives of environmental education in primary teachers colleges for the trainees to develop the correct attitudes and concepts about environmental education.

AREAS FOR FURTHER RESEARCH

It should be stressed once more that environmental education is very important in Kenya and especially for children in primary schools. This is so because the children will live longer and therefore will have longer time to conserve the environment.

The following suggestions are made for further research:

1. Since teachers have been found to have positive attitudes towards environmental education, it would be worthwhile to
find out the attitudes of pupils towards environmental education.

2. The findings of the study are limited to Bureti Division, a similar study can be done at a national level.

3. This study has been done in a rural area, a similar study could be done in an urban area and the results compared.

4. A detailed study on the awareness of the teachers in primary schools on environmental education in the whole country.
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"Interdisciplinary forms and methods of Environmental Education in the general Education, polytechnical schools and the Higher Educational Institutes". IEEP.
UNESCO - UNEP 1983.

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1974


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LAMBERT, W.W. and LAMBERT, W.E.,


School Science and Mathematics Journal
Vol. 74, Nos. 1 - 8 (1974)


TRIANDRIS, H.C. Attitudes and Attitude Change


Media Park.
Kenyatta University
Faculty of Education
Department of Educational Communication & Technology

P.O. Box 43844
Nairobi, Kenya.
Tel. 810901/12
Date 30.7.91.

Introductory Note for the Research Project.

M.Ed. (PTE) II Course - 1991

Student's Name: Cheruiyot Henry Kimugen REG. NO: E55/7525/89

The above named is our post-graduate student undertaking a Master's programme at this university. In the final year of the programme, it is the practice of this University for Masters Students to produce a piece of research project work as a partial fulfilment of the degree.

It is in this regard that I request you to assist and encourage this student in carrying out project work of the title:

A Study of Primary School Teachers' Attitudes Towards Environmental Education in Some Schools in Bureti Division, Kericho District.

Thanking you in advance,

Yours faithfully,

Dr. Twoli N.W.
COURSE CO-ORDINATOR, DEPARTMENT OF EDUCATIONAL COMMUNICATION & TECHNOLOGY

TNW/enk.
OFFICE OF THE PRESIDENT

DISTRICT COMMISSIONER'S OFFICE,
P.O. BOX 19,
KERICHO.

Ref. No. ADM.15/1/1/VOL.1/139 25th September, 1991

TO WHOM IT MAY CONCERN.

RE: CHERUIYOT HENRY KIPYECON REG. NO. E55/7525/89

The above named has been authorised to conduct a research on "A STUDY OF PRIMARY SCHOOL TEACHER'S ATTITUDES TOWARDS ENVIRONMENTAL EDUCATION".

The research will be carried in some schools in Bureti Division, Kericho District for a period ending 31st December, 1991.

Any assistance accorded him will be highly appreciated.

MUSIBO E.M.
F.O.D. DISTRICT COMMISSIONER
KERICHO

C.C.

District Officer,
BURET.

District Education Officer,
KERICHO.

O.C.P.D.,
KERICHO.
To The Headmasters of,
1. TERRIGA BOARDING PRIMARY,
2. KAPATI PRIMARY,
3. KAPTEI PRIMARY
4. CHISHIONE PRIMARY,
5. KAPISIARA PRIMARY
6. KIBAPAT PRIMARY
7. CHELKNOT PRIMARY
8. KAPLONG GIRLS' PRIMARY

Ref: MR. CHELKNOT HENRY KEPTAI ON OF UNIVERSITY

The above named would like to carry out some research in your schools.

Kindly assist him to do so.

(A. PERIANDU),
ASSISTANT EDUCATION OFFICER,
BURURI DIVISION.

CC
The District Education Officer,
Kericho District,
P.O. Box 149,
KERIICO.
APPENDIX A

QUESTIONNAIRE

The questionnaire consists of three parts. In each part you are instructed on how to respond. Please attend to all the items in the three parts.

The information you give in this questionnaire is confidential and will be used solely for the purposes of this study.

Part I - Background Information

Put a tick (✓) in the box that applies to you.

1. What is your sex?
   - Male □
   - Female □

2. How long have you been a teacher (teaching experience)?
   - Under five years □
   - 5-10 years □
   - 10-20 years □
   - Over 20 years □
3. What is your highest professional qualification?

SI
P1
P2
P3
Others (specify) ________________________________

4. For how long have you taught
Science? ________________________________ years
Agriculture? ___________________________ years
Geography? ____________________________ years

5. Indicate the classes you are currently teaching
any of three subjects listed above.

Standard 1 □ Standard 2 □ Standard 3 □
Standard 4 □ Standard 5 □ Standard 6 □
Standard 7 □ Standard 8 □
Part II - Attitude Items

Below are statements with which you should indicate your agreement or disagreement. Read each statement carefully and tick (✓) a letter(s) against each to indicate your opinion about that statement. Tick SA, if you strongly agree with the statement, if you agree with it tick A; if you are undecided tick U; if you disagree, tick D; if you strongly disagree tick SD. There are no right or wrong answers. Please do not tick more than one letter for each statement.

<table>
<thead>
<tr>
<th>Item</th>
<th>Teacher's Opinion</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Every primary school leaver needs the knowledge of environmental education.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>2. Environmental education is good for our environment.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>3. Environmental education is not a necessary subject in primary schools.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>Item</td>
<td>Teacher's Opinion</td>
</tr>
<tr>
<td>------</td>
<td>-------------------</td>
</tr>
<tr>
<td>4. If given a choice in pupil teaching, I would prefer teaching environmental education over any other subject in primary schools.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>5. I enjoy helping pupils participate in harambee projects to solve environmental problems.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>6. Teaching environmental topics is difficult.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>7. I enjoy discussing environmental education topics with my friends.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>8. Without environmental education there would be more problems in the world.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>9. Teachers could do better if environmental education was introduced as a separate subject in primary teachers training colleges.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>Item</td>
<td>Teacher's Opinion</td>
</tr>
<tr>
<td>------</td>
<td>-------------------</td>
</tr>
<tr>
<td>10. The content of environmental education included in my subject is too shallow.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>11. The environmental education topics included in my teaching subject(s) are irrelevant to the needs of the society.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>12. Environmental education is a waste of time in primary schools.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>13. Introduction of environmental education in primary teachers colleges is essential for all teachers to have or acquire the correct concept of environmental awareness.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>Item</td>
<td>Teacher's Opinion</td>
</tr>
<tr>
<td>------</td>
<td>-------------------</td>
</tr>
<tr>
<td>14. Environmental education should be taught at all levels of education in Kenya.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>15. The government is spending a lot of money in sponsoring programmes on environmental conservation and protection.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>16. The introduction of environmental education as a separate subject will mean more teaching load.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>17. The knowledge and skills achieved through environmental education are never applied to conserve our environment.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>18. Pupils and teachers should participate fully in environmental conservation measures e.g. planting trees, building gabions etc.</td>
<td>SA A U D SD</td>
</tr>
</tbody>
</table>
19. Environmental education deals with theoretical ideas/concepts.  

20. In everyday life, you don't need much to do with environmental education.  

---

Part III - General Questions

1. Does the primary syllabus stress the importance of environmental education? Consider your teaching subject(s).

---

2. What are some of the problems encountered in the teaching and learning of environmental education topics? Please list them.

---
3. Do you think environmental education should be taught as a separate subject?
   Yes or No

4. List down at least four topics in your subject(s) that are related to environmental education.

5. Are the objectives of environmental education well stated in your teaching subject(s).
   Yes or No

Thank you very much for your assistance.