

ENVIRONMENTAL CONSERVATION



KIBOSHO EAST

ENVIRONMENTAL CONSERVATION KIBOSHO EAST KILIMANJARO TANZANIA



MALIHAI TANZANIA

RAFIKI/FRIENDS FOUNDATION U.S.A.

ENVIRONMENTAL CONSERVATION **KIBOSHO EAST**

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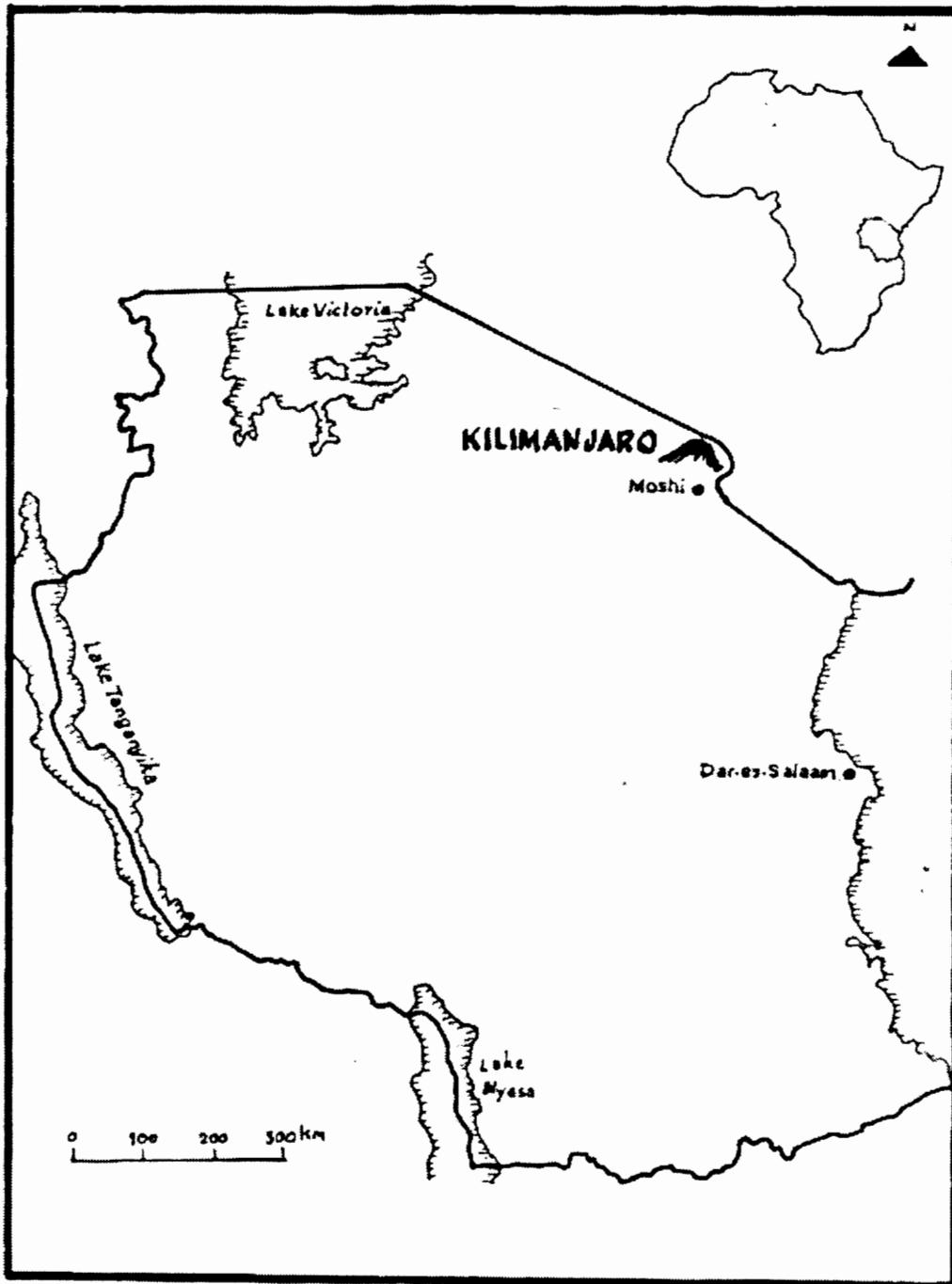


Figure 1. Location of Mount Kilimanjaro.

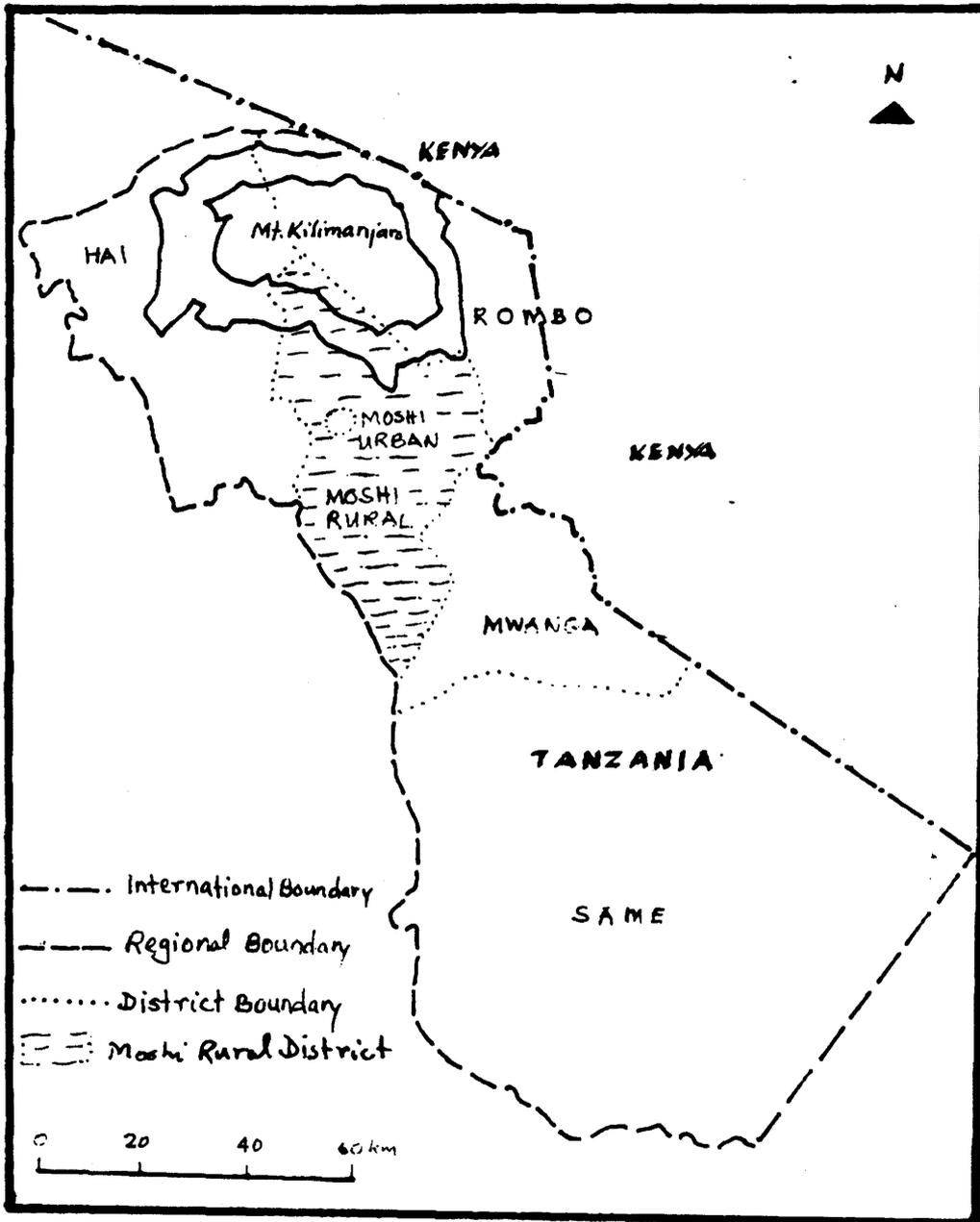


Figure II Kilimanjaro Region

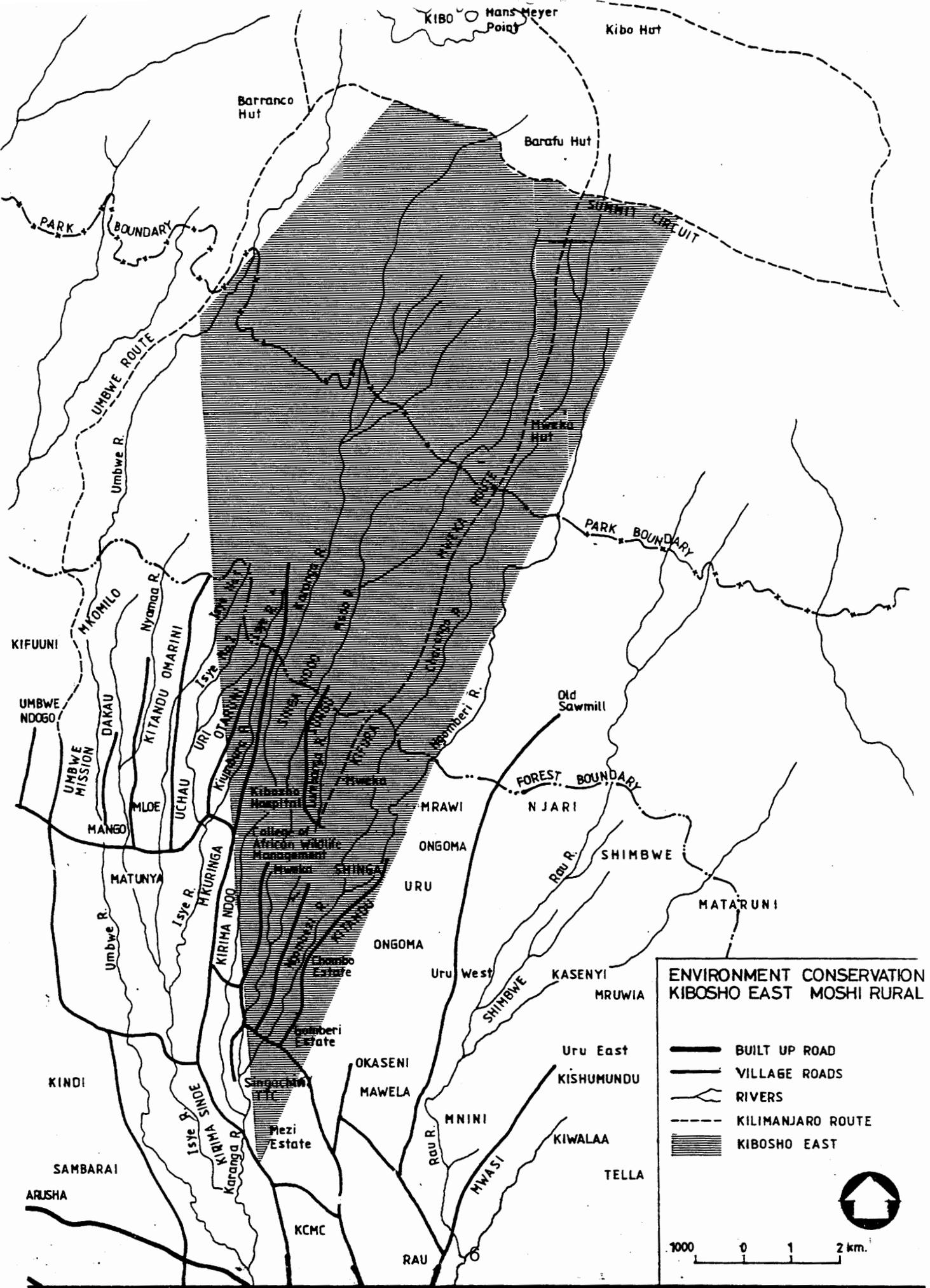


FIGURE III KIBOSHO EAST

LIST OF AUTHORS AND COORDINATORS OF THIS BOOKLET

Paul Ndakidemi	-	Teacher, Nsoo Secondary School
Clement Mbewa Mushi	-	Teacher, Mapinduzi Primary School
Lucy Njuu	-	Teacher, Mapinduzi Primary School
James Stephen	-	Teacher, Omi Primary School
Cresencia Kombe	-	Teacher, Kibosho Primary School
Felician Amani	-	Teacher, Kibosho Primary School
P. Mrema	-	Teacher, Singachini Primary School
Mrimi Charo	-	Teacher, Mweka Primary School
George Samwel Mwitani	-	Teacher, Mapinduzi Primary School
Beda Massawe	-	Teacher, Msinga Primary School
August Lello Rabu	-	Livestock Officer - Moshi
Venerandah Stephen	-	Teacher, Sungu Primary School
Sebastian Chuwa	-	Chief Patron, Malihai Clubs Kibosho East

PREFACE

This booklet is the result of various meetings and programmes of environmental education and awareness that started in 1992 in more than five primary schools in the Ward of Mt. Kilimanjaro known as Kibosho East. As a Botanist and an expert in environmental issues originating from this area, I have been instrumental in steering efforts to conserve the environment in this particular area and other places in Tanzania, while putting emphasis in those areas where degradation of the environment is most pathetic.

All the meetings and the business transacted in this booklet are on a voluntary basis by all the people and organisations mentioned herein. (See a list of various people and organisations). Since the environment is crucial in this century, with a lot of emphasis in the media nationally and internationally, the outcome of the 1992 United Nations Conference on Environment and Development in Rio de Janeiro has made Tanzanians recognise the importance of conserving the environment and has led to the starting of a national Environment Day, which is being officiated in all regions, held in conjunction with the UN designated World Environment Day. With this view, the Malihai Environmental Council found it appropriate to write this booklet in order to educate their members and their neighbours.

Kibosho East (See Fig. III) is being faced with severe environmental destruction by tree felling for firewood and timber, and soil erosion on river sides caused by cultivation and habitation. As a consequence, rivers dwindle during the dry season to the extent of drying up completely.

Since the issue of conserving the environment concerns both young and old, this booklet will serve as a guide to protect and appreciate the environment. This will be the first booklet about the environment here in Kibosho. It will assist teachers and students of both primary and secondary schools to know the names of indigenous trees, animals, birds, and medicinal plants (herbs). It will educate them in ways to protect them. There is a proverb which says:

If your plans are for one year, grow paddy.
If your plans are for ten years, grow trees.
If your plans are for ten to fifty years, educate people.

There is no doubt that our plans here in Kibosho are for more than fifty years, so mass education is our goal, emphasising that environmental protection is everybody's duty, especially the youth, who will enjoy its fruits now and in the future.

We have enrolled our youth in Malihai Clubs of Tanzania, which has issued them booklets, journals, and film shows, and conducted various seminars for teachers in a bid to make them aware of the importance of conserving the environment and impart that knowledge so obtained to students. Through this way it spreads to the villagers, for the students go and teach their parents and show them how to conserve the environment. Our aim is to eliminate the bad custom of felling trees for firewood and timber, which has left places bare, and to forbid people from cultivating on riverbeds.

Overpopulation in this area is not so much of a problem. Instead, it is the adverse economic situation which has crept in since 1966 that has caused many families to live below standard. Coffee is the main cash crop for people in Kilimanjaro villages, Kibosho being one of them. The CBD (Coffee Berry Disease), which has attacked coffee trees since the 1960's, has been the main contributory factor to poverty in this area. People, finding no other way to gain income, have resorted to felling trees, and selling timber and firewood as a means of survival. Due to this setback, parents were no longer able to renovate and build schools or bridges, nor to repair roads. As a result development has been retarded in this area.

In order to curb the destruction of our natural forests, education for protecting the forests should be introduced, along with tree nurseries. Emphasis should be directed to those areas drastically affected by tree felling, starting with water sources, and trees should be planted to preserve water and moisture. Kibosho East is not known for burning the forest but for felling trees rampantly without replacing them. It is the strong belief of the authors of this booklet that everybody, including neighbours and all people surrounding this mountain, will emulate the example of Malihai Clubs in conserving our natural heritage.

This booklet does not only deal with the environment, it also touches on how to increase the income of those families who have low or no income at all. It teaches them good ways of producing better crops, the proper use of pesticides, and how to protect themselves from the hazardous effects of these chemicals. Science and technology mentioned in this booklet will focus on those areas where new farms are being started, and how livestock, irrigation, spraying, and fertilisers can easily ruin the environment.

We trust that our readers **will** support the authors in protecting and being friendly to the environment by educating other people, especially our youth, for future generations. Preserving the environment is everybody's duty, considering that the world is becoming smaller everyday. Therefore education, especially for our youth, should be our shield for the advantage of our future generations.

SEBASTIAN CHUWA — CHIEF PATRON

GRATITUDE

Our gratitude should go to all Kibosho East residents who have co-operated with us in environmental conservation. Our sincere thanks should go to Mr. Sebastian Chuwa, the brain behind the introduction of environmental conservation and protection in this Division, and the mastermind behind introducing this booklet and writing a brief preface. He is also the one who introduced the idea of Malihai Clubs in Kibosho East. His contribution is immeasurable and he is highly commended and held in high esteem by everybody in Kibosho East. Our special thanks should also go to our friends who made it possible to start Malihai Clubs in Kibosho East and made sure that they will exist forever by arranging for teachers to be taught about the environment and attend seminars. The knowledge attained has been passed on to students and fruits have started to be seen. These contributors are:

- Michale Oliver – U.K.,
- Sunday and Mark Hackworth – U.S.A.
- Joan M. Schulte – U.S.A.: These friends contributed sports gear, books, pens, etc.
- Elizabeth and Walt Schymik, Bob and Gail Fennimore, and their friends in the U.S.A.: These contributed a printer used in printing the manuscripts of this booklet. Elizabeth donated sweaters for the children and adults.
- Mr. Grant Wheeler – U.S.A.: He helped us to start indigenous tree nurseries.
- Our Rafiki/Friends Foundation (U.S.A.): They helped us in various ways like: numerous presents they sent us, incurring all the expenses of the teachers' seminar conducted in Arusha, renovating Sungu Primary School, donating tree nursery tools, sports equipment, and so many other things.
- Jill and Gary Strand Wildlife Explorer (EA) Ltd.: They put us through to their friends in Europe/U.S.A. through their tourist company in Tanzania and assisted us in every way when asked to do so.
- Charlie Bouey with his cousin: They contributed a laptop which assisted in typing the manuscript of this booklet.
- Malihai Clubs Management in Arusha: They accepted us as one of their members immediately after getting our reports and bulletins and organising seminar for the teachers. Without forgetting Peter Ottaru the Co-ordinator, Mr. Ehrlich Kazungu, Education Officer, and Godfrey Mwangi with all the staff.
- College of African Wildlife Management, Mweka: For providing transportation to take teachers/students to Lake Manyara and Ngorongoro Crater.
- Dr. Patricia Moehlman - Wildlife Conservation Society (WCS - USA): Contributed to financing the trip to the National Park.
- Regional and District Education Officers: For supporting the idea of starting environmental conservation in this area.
- Fr. Henry Mushi - Kibosho Parish Priest: For sensitising people to the environment and attending the 1996 Environment Celebrations.
- All various institutions which attended 1997 Environment Celebrations
- Rector of Kibosho Senior Seminary for his good advice on Environment Day activities.
- Mr. Simon Mbesere - Moshi District Commissioner: For his valuable contribution and participation in Environment Day, 1997.

The following contributed in one way or the other in encouraging conservation of the environment in this area:

- Mr. Bakari Sekievu - Divisional Education Co-ordinator
- Mr. Abas Mzira - Divisional Forester
- Mr. T.L. Shoki - Headmaster Nsoo Secondary
- All primary school teachers of this Division
- Mr. Dominic Minde - Division Secretary - Management of Malihai Clubs Kibosho East network
- Mr. Clement J. Mushi - Chairman
- Mr. Mrimi Charo - Vice Chairman
- Mr. James Stephen - Secretary
- Ms. Veneranda Stephen - Vice Secretary
- Ms. Lucy Njuu - Treasurer

We should also not forget our Patrons:

- Mr. James Stephen and Ms. Hyasinta Mangowi - Omi Primary School
 - Mr. Mathias Kiria and Assey - Mweka Primary School
 - Mrs. Elizabeth S. Chuwa and Victorini Mallya - Sungu Primary School
 - Ms. Lucy Njuu and George Samweli - Mapinduzi Primary School
 - Mr. Felician Amani and Ms. Edita Ambroce - Kibosho Primary School
 - Mr. Bazil Rawia and Fausta August - Msinga Primary School
 - Mr. Prosper Mrema and Rita Massawe - Singa Chini Primary School
 - Mr. M.P. Ndakidemi and E.M. Gomezulu - Nsoo Secondary School
- We thank all the teachers, students and Malihai Clubs members for their invaluable efforts in encouraging environmental conservation in their areas.
- Without forgetting the two brothers, Joachim Chuwa and Sebastian Chuwa, for typing and re-typing the several drafts of the manuscripts with meticulous care and mathematical neatness.
- We should also not forget Anna T. Mworia for her profound efforts in producing the final draft and her patience in doing the corrections.



1
Members of Mapinduzi Primary School playing basketball, using equipment donated by the Rafiki/Friends Foundation.



2
Here leaders of various schools are distributing presents among themselves that were donated by the Rafiki/Friends Foundation.

CHAPTER ONE

HISTORY OF MALIHAI KIBOSHO EAST

Kibosho East Division is in Kibosho Ward in Moshi Rural District in Kilimanjaro Region. It is comprised of Singa, Sungu, and Mweka villages. It lies between 37° 15' – 37° 21' East longitude and 3° 03' – 3° 20' South latitude. It is 800-2000 m above sea level. The population in Kilimanjaro is 840,386 (as per the 1988 census). Moshi Rural District has the highest population compared to other Districts which have 342,553 people. Kibosho East has a population of 14,000 people.

This area lies on the slopes of Mount Kilimanjaro, at 5,895 m the highest mountain in Africa, and is surrounded by a dry, thick, dense forest. Kibosho lies right in the middle of the mountain. All the rivers in this area originate from this huge mountain. There are two rainy seasons in a year: the long rains, which start in March and end in July, and short rains which start in September and end in November. This mountain attracts many tourists, who climb it in huge numbers every year through the Mweka route. (See Figure III).

In 1992 Mr. Sebastian Chuwa introduced Malihai Clubs in Kibosho East, and kindly volunteered to become its first Chief Patron. The following year Sungu and Mweka Primary Schools requested to become members. They were accepted after fulfilling all the necessary requirements. In 1994 Kibosho and Mapinduzi Primary Schools followed suit. In 1995 Nsoo Secondary School joined and in early 1996 Msinga and Singa Chini also became members.

After setting up these branches, Mr. Clement Mushi, from Mapinduzi Primary School, was elected Chairman of the Clubs network with his Vice Chairman, Mr. Mrimi Charo, from Mweka Primary School. Mr. James Steven from Omi Primary School was elected as Secretary and Ms. Veneranda Steven from Mweka Primary School as Assistant Secretary. Ms Lucy Njuu was elected Treasurer.

Some of the activities carried out in our schools are:

- Practical training in conserving the environment in school and at home
- Personal and general cleanliness of our surroundings
- Sensitising environmental awareness and preserving indigenous trees in our surroundings

This has enhanced good co-operation among the schools, villagers and various institutions in Kibosho East.

Ever since the establishment of Malihai Clubs, the pioneer schools like Omi, Mweka and Sungu, have succeeded in surrounding their schools with orchards and other kinds of trees which provide shade and timber. Other schools emulated their example and started their own nurseries, which are supplying trees to eventually make the whole area green.

Co-operation among schools has been of high standard and students have realised the need to be clean and live in clean and neat surroundings. In order for the villagers to see and appreciate our efforts, emphasis has been put on encouraging the planting of indigenous trees like:-

- Camphor or Mwowoni (*Ocotea usambarensis*)
 - Mahogany (*Khaya nyasika*)
 - Silky oak or Kabilia (*Grevillea robusta*)
 - Mfurufuru (*Croton macrostachyus*)
 - Long podded or Msuruachi (*Albizia gummifera*)
 - Pencil Cedar or Msonobari (*Juniperus procera*)
 - Mlimangumbe (*Rapanea rhododendroides*)
 - Ikundukundu (*Mitragyna rubrostipulata*)
 - Mduka (*Albizia schimperana*)
 - Lemonwood or Ndidi (*Xymalos monospora*)
 - Large leaved tree or Iringa/Mringaringa (*Cordia africana*)
- Exotic fruit trees like:
- Guava or Mpera (*Psidium guajava*)
 - Tangarine or Mchenza (*Citrus spp.*)
 - Pawpaw or Mpapai (*Carica papaya*)
 - Orange or Mchungwa (*Citrus sinensis*)
 - Lemon or Mlimau (*Citrus limon*)

Efforts have been made to distribute seedlings to students and encourage them to plant the seedlings in their own homes in a bid to boost the good health of villagers.



3

In this picture members of Omi Primary School are planting shade trees in order to conserve the environment.



4

Members of Kibosho Primary School are planting fruit trees in their surroundings.

ENVIRONMENTAL CONSERVATION IN KIBOSHO EAST

In addition to the above, protection of the following resources motivates us in conserving the environment:

- Forests
- Rivers
- Livestock
- Land
- Insects like bees and butterflies

Since many people in this area do not have sufficient knowledge about how to conserve the environment, it was decided that an organisation dealing with such issues be formed, and hence the organization of Malihai Clubs. In the past, many rivers in this area were filled with abundant water which flowed into the plains. Today however, no water flows as it formerly did in the past.

A) DESTRUCTION OF WATER SOURCES

Many people cut down trees for various reasons, including commercial and domestic purposes. This bad habit has been brought about by the adverse economic conditions which resulted from the Coffee Berry Disease (CBD) that destroyed coffee trees. As a result, the farmers were left with no other means of generating income, as coffee is the only cash crop in the area. This tree felling left the land bare, with no trees for shade and no vegetation-preserving moisture.

B) CULTIVATION AND HABITATION

Rapid population increase has led to the diminishing of original wild areas, which as a result do not meet the immediate needs and economic demands of the people. The influx of population has led to the destruction of the environment by destroying the natural vegetation at Kibosho East water sources. The vital areas destroyed have become settlements for the inhabitants. Notable areas destroyed are the banks of rivers Nsoo and Lumbanga.

The inhabitants pollute and destroy the environment, sometimes through negligence and ignorance. Since people living in this area are mostly farmers and livestock keepers, they use pesticides to protect coffee from being attacked by CBD, and they use chemicals to preserve their grains from being attacked by pests. They even spray their vegetables with chemicals!!! They perform all these activities without protective gear, and as a result they inhale the entire toxin, which causes cancer of the liver and lungs. Through spraying they pollute the air, and this affects everybody in the vicinity. These toxic chemicals penetrate through the soil, and the rain water accelerates the penetration. They are then absorbed by edible roots and grasses that are consumed by animals and human beings. The manufacturers should be urged to give instructions on how to use these chemicals and state clearly their side effects on misuse, preferably in the language of the user. Also, pollution enters the environment and the home when the farmer becomes negligent by washing all equipment used for spraying in rivers or streams, and the contaminated water is used for drinking and cooking.

In order to stop this malady, students are being taught ways and means to offset the contamination and pass on the knowledge to their parents, namely:

- To dispose properly of all empty containers used to store pesticides,
- To keep away all pesticides from food and animal feed,
- To wash hands thoroughly after spraying,
- To avoid storing grains or water in containers which originally stored pesticides,
- To avoid using pesticides as medicines for treating wounds, and
- To avoid using indigenous plants like Utupa (*Tephrosia interrupta*) and Iwinu (*Senna didymobotrya*) as bait for fishing in rivers and streams.

Steps being taken to preserve natural vegetation and the environment are:

- To educate people about the need to grow trees around their houses to avoid soil erosion caused by wind and rain (they should understand that these provide them with shade and wind protection),
- To encourage terraced farming on steep slopes,
- To spread dry leaves on farms to preserve moisture,
- To grow creeping grass, which preserves moisture and prevents soil erosion,
- To educate those cultivating and settling along the river banks and request the government to take stern measures against them,
- To reduce the water current when irrigating by placing barriers along the route, and
- To destock livestock.

- Also, using fire when gathering honey should be discouraged as it is the greatest source of forest destruction. A seminar has been organised to educate people on this issue.
- As a measure to curb the use of too much firewood, the local government should educate people about other means of domestic energy and the use of modern cooking stoves.



5 A & B

Tephrosia interrupta: leaves are mixed with Senna didymobotrya (Iwinu) to intoxicate fish in rivers and ponds.





6

Sebastian Chuwa — Chief Patron of Malihai Clubs, Kibosho East, has worked for 30 years as a botanist in various areas of eastern Africa, studying plant species and organizing local groups for environmental conservation.



7

Members of Malihai Clubs listening to the Chief Patron instruct them about the best methods of planting tree seedlings and protecting them from animal predation and adverse conditions.



8

Members of Sungu Primary School are erecting a fence in order to preserve environmental hygiene.



9

Members of Mapinduzi Primary School are taking their tree seedlings to the villages, ready for planting.

C) WAYS AND MEANS USED TO CONSERVE THE ENVIRONMENT IN KIBOSHO EAST

When we talk about environmental conservation in Kibosho we should not concentrate on natural resources alone, but we should also look at personal hygiene, gardens, and farms.

- **PERSONAL HYGIENE:** Every day before classes are started, students are inspected as to whether they are physically clean and their uniforms well washed. This is a rural area and very cold during the rainy season, so sometimes it is difficult for students to observe personal hygiene. This stems from the fact that the parents do not wash themselves either.

Those found dirty are counselled on how to clean themselves, and if they persist, the teachers visit their parents and teach them about how to wash themselves and encourage the children. They are also told the importance of cleanliness. Those students found to be clean are awarded, and this has encouraged many students to be clean. Since many parents are poor and cannot afford to buy shoes for their children, many walk barefooted and become dusty during dry season and muddy during rainy season. But this is the order of the day; it cannot be avoided.

- **ENVIRONMENTAL CLEANLINESS:** The school compound is cleaned every day before and after school. All the rooms are thoroughly washed, the hedges trimmed, and the lawn too. The three playgrounds, namely netball, basketball, and football, are kept in good condition. To make sure that environmental cleanliness is observed, a special committee has been appointed in each school to oversee that the above is strictly observed, and that tree seedlings are planted and some distributed to villagers. They visit them to see whether trees have been planted and cared for. They also inspect homes for cleanliness and those found clean are rewarded on Environment Day, which is celebrated yearly in June, but for those dirty ones, they are counselled. Signs of improvement have been seen already.

- **SCHOOL GARDENS:** In all schools the gardens consist of orchards, different species of flowers, and vegetables. These gardens are watered every morning and evening and weeded frequently. On both sides of the school entrance there are flowers of all kinds which portray a beautiful picture. Shade trees can be seen scattered all round which make the whole compound look very verdant. Come dry season everything dies, as the sun can be so hot that even if you water plants, evaporation soon takes place. Since all the streams and rivers dry up, students are forced to draw water from a distance, and this is not enough for the roots to absorb. Consequently the place becomes dusty and very windy.

- **SCHOOL FARMS:** Not all schools have farms, but those which have, grow maize, beans, bananas, coffee, and vegetables. Since every villager keeps livestock, cow dung as a source of natural manure is preferred, as it is non-toxic. As for coffee trees, pesticides are used to protect them from fungus and pests. Despite all efforts to maintain the school farms, there are setbacks, like rats and stray animals which eat the crops. To alleviate this situation watchmen are deployed to guard the farms. Some schools keep dairy cows and practise zero-grazing.



10
Mweka branch students are working in their vegetable garden to boost their health.



11
Msinga Primary School branch students pose for a group picture on the occasion of the official opening of their Malihai Club.

- **ENVIRONMENTAL CONSERVATION AT NSOO SECONDARY SCHOOL:**

This school will be discussed separately, because it is the only Secondary School which has so far joined the Malihai Club network and so the students are more mature. This is a boarding school and special attention is directed to hygiene so that students do not run the risk of spreading epidemic diseases.

Every Monday and Thursday before classes, students are inspected concerning their personal hygiene. It is strictly forbidden to dye hair and apply nail polish. Natural appearance is the motto of the school. Surprise checks are done in dormitories in the compound, and if found dirty and untidy, students concerned are penalised. As these are grown ups, very few are found untidy and dirty. The students who excel in cleanliness are rewarded at the end of the year. All classrooms, offices, toilets, the assembly hall, kitchen, and storeroom are cleaned twice a day. The school compound and all roads leading to various buildings are handled in the same manner. Cleanliness is done twice a day because some of the students are day scholars and live away from school and consequently don't clean thoroughly. As with all schools in this Division, Nsoo is faced with the problem of cleaning materials, like buckets, rugs, disinfectants, brooms, detergents etc. Sometimes ash is used in place of disinfectants. Students have to bring their own cleaning materials.

Since the school has no fence, neighbouring goats and cows invade the compound and eat everything they find. Neighbours have been warned against letting their animals loose. To protect trees from being destroyed, thorns have been planted around them. Malihai Clubs donated 600 tree seedlings of different varieties to this school, and more are expected to be planted as the compound is quite big.

The school has 75 acres of land. Five acres are covered with coffee trees and the rest is mixed farming. Agricultural officers visit the school to teach students modern farming techniques and how to use modern tools. Every class has its own land allotment, and a committee has been appointed to oversee the progress made by each class from harrowing to harvesting. The best class is given merit and rewarded at the end of the year.

WORLD ENVIRONMENT DAY AT KIBOSHO EAST – MAY 7, 1996

PUBLIC CAMPAIGN



12

The central committee in one of its preparatory meetings for World Environmental Day -1996.

We joined our fellow environmentalists throughout the world to celebrate World Environment Day on May 7, 1996. The aim was to make the villagers aware of the importance of conserving the environment. Already, effects of our efforts to plant trees and maintain them have started to be seen. On May 7, everybody was urged to plant at least one tree in his farm as a sign of putting words into action. Songs and poems were recited, teaching people the importance of preserving natural resources. Plays were performed to depict the adverse effects of destroying the environment. It was the first time for these celebrations to take place in Kibosho. Before the important day, a series of planning meetings had taken place in order to make this special day a memorable success. It was unanimously agreed that the celebrations should take place at Sungu Primary School. The early date of May 7 was chosen because it was during the rainy season and the best time to plant trees. Later on it will be on June 5th every year, in conjunction with the international celebration.

Among the resolutions made, it was agreed to invite the following people:

Guest of Honour: The Principal of the College of African Wildlife
Management/Mweka
Member of Parliament for Moshi Rural District
Bonite Bottlers - General Manager
Coordinator - Malihai Clubs Tanzania

District Education Officer
District Natural Resources Officer
District Chief Education Inspector
Political Leaders
Rector - Kibosho Seminary
Medical Officer – Kibosho Hospital
Parish Priest - Kibosho Parish
Msinga Folk Development College
Kibosho Girls Secondary School
Singa Chini Teachers Training College
Cooperative Union Managers – Sungu and Mweka
Ward Secretaries
Chairmen of School Committees
Local Natural Resources Officers and all Heads of Militia in Kibosho

Funds were to be obtained to finance the occasion. The Chief Patron Mr. Sebastian Chuwa donated 100,000 shillings. Other contributions came from teachers, schools and other benefactors.

Every school was assigned a duty:

- | | |
|---|-------------------------------|
| 1) To prepare the venue | -Sungu Primary School – Host |
| 2) To fence the venue with hesian cloth | -Mapinduzi/Omi Primary School |
| 3) To build the platform | -Mapinduzi Primary School |
| 4) To transfer seedlings to the venue | -Omi/Mweka Primary School |
| 5) To prepare placards | -All schools |



13
Chief Patrons and heads of schools pose for a group picture after their preparatory meeting for Environmental Day – 1996.

PROGRAMME

TIME	ACTION	RESPONSIBLE
10 - 10.30 a.m.	Arrival of visitors	MASTER OF CEREMONY
10.30 – 10.35 a.m.	Song	OMI PRIMARY SCHOOL
10.40 – 10.45 a.m.	Poem	MWEKA PRIMARY SCHOOL
10.50 – 10.55 a.m.	Local Dance	SUNGU PRIMARY SCHOOL
11.00– 11.05 a.m.	Poem	KIBOSHO SECONDARY SCHOOL
11.10 – 11.25 a.m.	Play	NSOO SECONDARY SCHOOL
11.30 – 11.35 a.m.	Song	MAPINDUZI SECONDARY SCHOOL
11.40- 12.00 noon	Introduction	CHAIRMAN MALIHAI
12.00 – 12.30 p.m.	Greetings from various organisations/people	CHAIRMAN MALIHAI
12.35 – 12.45 p.m.	Short history of Malihai Clubs	COORDINATOR
12.50 – 1.00 p.m.	Issue of Certificates	GUEST OF HONOUR
1.05 – 1.15 p.m.	Award of presents	GUEST OF HONOUR
1.20 – 1.25 p.m.	Speech	SECRETARY MALIHAI
1.30 – 2.00 p.m.	Speech	GUEST OF HONOUR
2.00 - 2.05 p.m.	Tree planting ceremony	GUEST OF HONOUR
2.05 – 2.10 p.m.	General Picture	ALL
2.10 – 3.45 p.m.	Lunch	ALL
4.00 – 4.15 p.m.	Word of Thanks	CHIEF PATRON
4.15 onwards	Visitors leave	MASTER OF CEREMONY



ACTIVITIES

At 9 a.m. all schools entered the arena followed by the Guest of Honour and all other invited guests.

The Mapinduzi Primary School entered with a placard reading: **IT IS OUR DUTY TO CONSERVE VEGETATION, WILDLIFE AND ENVIRONMENT.** Kibosho Primary School followed with their placard reading: **PLANT TREES BEFORE CUTTING ONE.** Nsoo Secondary School entered singing, carrying their placard reading: **IT IS THE DUTY OF EVERYBODY TO CONSERVE THE ENVIRONMENT.** Omi entered with their placard reading: **MALIHAI SHOULD EXIST FOREVER.** The last to enter was Mweka Primary School, singing and dancing, carrying a placard written: **IT IS THE RESPONSIBILITY OF ALL YOUTH TO PROTECT ANIMALS THREATENED BY EXTINCTION.** The host school had prepared a placard that was made of white material hung one kilometre away from school with the emblem of Rafiki/Friends Foundation. It read: **ENVIRONMENTAL DAY.** The entire road leading to the school was decorated with petals and it really looked beautiful.

The celebrations started by singing the Primary School's National Anthem:

TANZANIA, TANZANIA!

Tanzania, Tanzania,
I love you with all my heart. x 2
My country Tanzania,
Your name is very sweet.
When I sleep I dream about you.
When I wake up it is happiness, my mother.
Chorus: Tanzania, Tanzania, I love you with all my heart.

Tanzania, Tanzania, when I go on safari
To see wonders,
To do business and dwelling place,
I cannot forget the good times at all.
Chorus: Tanzania, Tanzania, I love you with all my heart.

Tanzania, Tanzania,
Your people are very kind,
Many countries dream of you.
Your light cannot be likened.
Visitors throng to see you.
Your fort is very strong.
Chorus: Tanzania, Tanzania, I love you with all my heart.

My country Tanzania, welcomes the neglected.
With problems and agrieved,
Tanzania welcomes you all,
Fight bravely.

Chorus: Tanzania, Tanzania, God be with you forever.



14

One of the placards displayed on Environment Day -1996.



15

Nsoo Secondary School Branch with their placards on Environment Day – 1996.

The following song was sung by Omi Primary School:

THEME OF THE SONG:

1. To welcome the visitors
2. Cooperation and advice on conservation of the environment

Welcome visitors, you are all invited
To see what we are doing in the villages.
Visitors welcome, you are invited
To see what we are doing in the villages.

Chorus:

***Welcome, our visitors, feel at home.
See the progress of Malihai at Kibosho.
Seven Schools in Kibosho have united.
Environmental conservation is our sole aim.***

To protect wildlife and conserve soil,
Environmental cleanliness, and the water sources.
To protect wildlife and conserve soil,
Environmental cleanliness, and the water sources.

Chorus:

Visitors agree on this issue:
To protect natural resources is good for the future.
Visitors agree on this issue:
To protect natural resources is good for the future.

Chorus:

Please keep us in your mind when you leave,
Kibosho East is the best example of Malihai.
Please keep us in your mind when you leave,
Kibosho East is the best example of Malihai.

Chorus:

JOYFUL DAY

THEME OF THE SONG:

1. Inauguration of the Malihai Club branches
2. Importance of the Malihai Clubs
3. Gratitude to the Patron

Today is truly a joyful day.
We approve that in our Division
To conserve natural resources
We are inaugurating our Club.

Chorus:

A joyful day to all of us,

***Inauguration of Malihai Club.
We conserve our environment,
We are inaugurating Malihai Club.***

Environment in our country
Without mercy we have destroyed-
Water sources, trees and also wildlife.
The environment we shouldn't destroy.

Chorus:

We started Malihai Club.
Our aim is to conserve Malihai.
Plant trees, cut a tree, is our creed.
It should be our rule.

Chorus:

Our Chief Patron, Mr. Chuwa, we thank you.
For the tremendous efforts, we praise you
For starting Malihai Clubs.
Our Chief Patron, Mr. Chuwa, we thank you.

Chorus:

Mweka Primary School came up with the following recital:

What is there (x2) to make me understand
For this arena to be filled with young and old?
Tell me my friends, don't deceive me.
To ask is not ignorance, please explain to me.

Listen my friends, while I explain to you my innermost thought.
It is an important day without hiding from you.
It is Malihai Club as you very well know.
It is Kibosho Malihai Clubs' Joyful Day.

You said it is a Club, or is it a drinking Club, or a soda club?
It is a joyful day, I can't understand.
Explain to me so that I can understand.
To ask is not ignorance, please explain to me.

Get seated my friend, while I explain to you.
Malihai means every living thing,
Not stones, but whatever is in the environment.
It is Kibosho Malihai Clubs' Joyful Day.

Don't behave like a fool, behave like an intelligent person.
I am explaining to you how to protect and conserve the environment,
Our inherited trees.
It is Kibosho Malihai Clubs' Joyful Day

We should protect water sources by growing trees.

Cut a tree, grow trees.
We should protect the environment to protect ourselves.
It is Kibosho Malihai Clubs' Joyful Day.

We shouldn't forget Serengeti and Ngorongoro,
Mikumi, Manyara - our National Parks,
To protect wildlife in order to attract tourists.
It is Kibosho Malihai Clubs' Joyful Day.

Listen, my friends, I have something to tell you.
Water is the livelihood of human beings.
Three quarters of fluid in the human body is water.
It is Kibosho Malihai Clubs' Joyful Day.

We shouldn't burn forests haphazardly to ruin living things.
We should stress that, lest we regret.
We shall be blamed by the coming generation.
It is Kibosho Malihai Clubs' Joyful Day.

Wildlife is our God given wealth
Living in the forests, which are also ours.
We are obliged to treat them humanely.
It is Kibosho Malihai Clubs' Joyful Day.

There are lions, rhinos, buffalos, and zebras,
And birds, giraffes, which are harmless,
Attractive birds flying all over.
It is Kibosho Malihai Clubs' Joyful Day.

We have learned a lot.
It has enlightened us to understand the environment,
To protect it for future generations.
It is Kibosho Malihai Clubs' Joyful Day.

We profit a lot in conserving the environment-
Foreign exchange, timber, and firewood.
We visit the environment and get clean water.
Protect the environment so that it protects you.
It is Kibosho Malihai Clubs' Joyful Day.

I have now understood everything.
It is logical to understand the environment.
Brothers and sisters let us dance.
It is Kibosho Malihai Clubs' Joyful Day.

Announce to all what you have heard.
Explain about the environment so that they are able to conserve it
For the good of the coming generations which will be able to say,
"Had it not been for the good job done by our ancestors, today we would not see
The Kibosho Malihai Clubs' Joyful Day."



16
Chief Patron, Sebastian Chuwa, showing how more than 10,000 tree seedlings were distributed to various members.



17
A play acted by Nsoo Secondary School on Environment Day - 1996.

PLAY:

The theme of this play was centered on the role played by the Kibosho community in destroying the environment by cutting down trees in the forests, settling along the river banks and cultivating all along the banks, thus causing the water level in the rivers to go down. On seeing the side effects of this destruction, the Agricultural Officer convened a meeting of the villagers and educated them concerning the environment, condemning those who had settled and cultivated along the rivers. The innocent members shouted that the culprits should be moved away. The latter pleaded to be spared but all in vain. They even went to the extent of offering bribes but it didn't help. Finally the Agricultural Officer concluded the meeting by advising every member to go and pass on the message of conserving the environment to all those who did not attend.

Kibosho Primary School recited the following poem:

CONSERVATION OF THE ENVIRONMENT

We are entering the arena,
Having a few words to say on the environment,
A good day to exalt the environment.

Chorus: To inaugurate Malihai Kibosho East.

It started step by step, members joining.
Malihai started and brought light.
We learned that we should build an environmental spirit.

Chorus:

Wildlife has diminished,
Mammoth have vanished, tortoise have decreased.
We do not know the reason, we should find it now.

Chorus:

Trees are bare, others are no more.
The world was in abundance with trees.
Every year trees were being planted.

Chorus:

It is now difficult to replace those trees.
People are in the open, they do not want to plant trees.
It is difficult to plant them.

Chorus:

The nation says that Malihai is good.
We should act to be the best.
We should keep on emphasizing for them to know better.

Chorus:

Our Kibosho East Division is the best overall,

To sensitise, preserve the environment.
Let it not be the last, it should thrive more.

Chorus:

Many visitors like to visit us,
Our economy thrives.
Let us not ignore them.

Chorus:

We get firewood, because fire is important.
We should not burn haphazardly, we will regret it.
Avoid felling trees irrationally.

Chorus:

Cut a tree, plant three,
To get three treasures.
Insist on that always.

Chorus:

Congratulations, Mr. and Mrs. Chuwa and your family,
For starting Malihai; without you we would be nowhere.
Long live and God bless you.

Chorus:

With these few words we are not tired of talking.
The ebony is the best tree.
We should all learn about trees.

Chorus:

Let us end up here.
Please continue with your efforts.
Prepare enough seedlings for our forest.

Chorus:

The last song came from Mapinduzi Primary School:

THEME OF THE SONG:

1. Welcome visitors
2. Conserving the environment
3. Congratulate the conservationists

Welcome visitors enjoy yourselves,
This is really an important day -
Inauguration of Malihai Clubs in Kibosho.
Malihai means to conserve environment,
Cleanliness, wildlife and forests to protect. x2

**Chorus: Mrs. Chuwa, encourage Mr. Chuwa
To foster his efforts in spreading Malihai.
Congratulations Mr. and Mrs. Chuwa.**

To conserve the environment, cut one, plant three.
It is dangerous to burn the forest.

Chorus:

Tourists visit us
Because the environment attracts wildlife.

Chorus:

Let us all unite to conserve the environment and maintain hygiene,
Environmental outlook everywhere.

Chorus:

Though others think wildlife means meat only
And forests are dangerous to human beings.

Chorus:

Congratulations to our donor, Mr. Chuwa,
To have the idea of starting Malihai.
Few know what it means.

Chorus:



18

Omi branch displaying their placards on conservation of the environment.



19

Mweka branch with their placard on World Environment Day - 1996.

Then came an introduction of the following people:

Mr. Clemence Mushi – Chairman
Fr. Henry Mushi - Kibosho Parish Priest
Mr. Ehrick Kazungu - Representative from Malihai Arusha
And other Party and Government officials from Kibosho East

The Parish Priest gave the following speech:

Guest of Honour,
Mr. Chairman Malihai Clubs,
Invited Guest,
Ladies and Gentlemen,

I am requesting you children to strictly conserve the environment. Don't ever cut trees, as the situation now is appalling. Cultivate the habit of loving trees so that you grow with them. I would advise you children to grow at least one tree now so that you become proud at an old age when you come to show your children and grandchildren, for this culture is being passed on from one generation to another. Look after the tree you have grown and nurse it well and follow its progress. Don't let it die, if it does, don't despair, plant another. The habit of preaching about planting trees should be abandoned and actions should prevail. There should be no gender discrimination in planting trees. My sincere thanks to Mr. Chuwa for having nurtured the culture of loving the environment, which has consequently led us to be here today.

Please let it grow more and more and my doors are open for you in case of any problem or assistance, for we want to have an environmental centre in Kibosho East in the near future. This idea will only be accomplished through the efforts you are putting into preserving the environment. Keep it up and don't despair. I don't have much to say. I thank everybody for listening to me.

The Representative from Malihai Arusha gave the following speech:

Guest of Honour,
Invited Guests,
Ladies and Gentlemen,

Today is a special and a happy day, like when parents celebrate the birth of their first born, and to us it is the official **INAUGURATION OF MALIHAI CLUBS IN KIBOSHO EAST**. This is an increased workload for the Chief Patron, Mr. Chuwa. Everybody will agree with me that he has done a commendable job, his personal commitments notwithstanding. This is because he is committed to conserving the environment. Furthermore, he has devoted all his precious time to sensitising and teaching about the environment without demanding anything. For that he deserves a pat on the back.

History shows that conserving the environment is one's devotion and not the question of abiding by the law. If we all hate destruction of the environment, it is a step higher towards encouraging development in our area, and everyone should make sure that Tanzania has the best environment protecting its forests, lakes, and the ocean. I personally would like to congratulate Mr. Chuwa for the excellent job done and ask everybody to emulate his example. There is a proverb which says: "Charity begins at home." Mr. Chuwa has put those words into practice for the last ten years or so. I would like to repeat the words which the parish priest said: that we should not only preach about growing trees, we should also see how many of the trees we have grown have progressed. However, I don't want to take too much of your time, but I would like to inform you that Malihai Clubs of Tanzania was started 16 years ago, though you will see it is a short time compared to our neighbours, Kenya and Uganda, who have started their clubs over 20 years ago. The aim of starting Malihai Clubs was to educate Tanzanians about how to conserve and love the environment. To build this culture we have to start with the youth, for they are the primary route to all sorts of education.

I am very pleased to learn that there is a representative from the District Education Office in Kibosho and I think this should extend to the Divisional and Regional level. You have started well, from the grassroots level, and soon you will reach the Regional level. Apparently the idea of educating people about the environment started way back in 1972, and it was implemented in 1980. We taught about environmental conservation through lectures, video/film shows, workshops, and seminars. Our idea was to start clubs which would make us achieve our goal. The other day when Mr. Chuwa paid a courtesy call to our office, we promised to visit all schools which have formed these clubs. You are steps ahead in your area because of these clubs and you are incomparable to those places that have none.

I promise you that I will arrange for you to watch pictures taken around Mr. Kilimanjaro, and that I shouldn't base my speech on historical events only since our aim is to put words into action, something at which you have excelled.

I didn't expect such a gathering from the Divisional level to be so big. I have never seen such a well attended gathering in my life, leaving aside the ones I saw on Environment Day in Mwanza and Arusha. I therefore thank you, Mr. Chairman, for excellent preparations which made this day a success and congratulate you for the good job done since 1992. Without forgetting the organisers - without them we wouldn't be here today. **CONGRATULATIONS TO YOU ALL.**

The Guest of Honour then presented certificates to the following members:

Omi Primary School, Sungu Primary School, Kibosho Primary School, Mapinduzi Primary School, and Nsoo Secondary School. Msinga and Singa Chini didn't get their certificates as they had not yet fulfilled the prerequisite conditions laid down by Malihai Clubs.

After this, presents from the Rafiki/Friends Foundation were given as follows:

Omi Primary School got 3 footballs, and science and math books.

Mweka Primary School got 2 footballs, a football pump, and pens and books.

Sungu Primary School got 1 basketball, goal balls, and science books.

Kibosho Primary School got 2 footballs, and science and math books.

Mapinduzi Primary School got 2 footballs, 2 basketball goals, and math and science books.

Nsoo Secondary School got 3 footballs and a basketball.

Msinga Primary School got 2 footballs, 1 basketball, and books.

Singa Chini got 2 footballs and books.

The Secretary of Malihai Clubs gave the following speech:

Guest of Honour,
Invited Guests,
Ladies and Gentlemen,

All Malihai Club members have the pleasure to welcome you all to Sungu Primary School to celebrate and inaugurate Malihai Club branches in this area.

Mr. Sebastian Chuwa, who on behalf of Malihai Clubs volunteered to become the Chief Patron of seven schools since 1992, initiated the idea of Malihai Clubs in this area. Up until now all schools in this Division have joined and soon Singachini will follow suit.

Guest of Honour, the functions of our clubs are:

- To conserve the environment in our schools and homes by putting emphasis on personal and environmental hygiene
- To plant trees and look after them
- To sensitise people to grow trees

Some of the achievements made so far are the number of various trees grown in schools. All schools have demonstrated a high degree of co-operation between teachers and students. Students have become much cleaner than before.

Through Mr. Chuwa's own efforts, a very successful study tour for teachers was organised to go to visit Lake Manyara and Ngorongoro Crater. The teachers enjoyed and liked it and they learnt quite a lot from what they saw. The knowledge they got was passed on to the students and in this way the students' minds have been cultivated to view the environment and wildlife with a wider vision than the one they get from books alone. Through his initiative, the schools now have many donors and friends who have contributed books, pens, sports gear etc. Malihai Clubs Kibosho East is very grateful to them all, without forgetting our dear friends, the Rafiki/Friends Foundation of U.S.A., who love us dearly.

Our students learn about the environment and wildlife theoretically only, for they have never had a chance to visit National Parks. We believe one day we shall be able to send them there and see the natural resources physically. The teachers have requested us to organise a seminar on how to run and administer Malihai Clubs, for they don't know their scope of work and their duty in running these clubs.

Guest of Honour, we are irked at the way our fellow villagers who are craving to get rich, are felling trees for timber and firewood. We are requesting the Forest Officer to use the powers bestowed upon him to protect forests, to take punitive measures against these culprits, and we will cooperate with him in every way by disclosing these bad elements in our society.

Though we are trying very hard to plant trees everywhere, we are doing that under very difficult conditions, as we lack the necessary tools like wheelbarrows, rakes, buckets etc. We hope this will be looked after, as this is just the beginning of a long way to go. We are very proud to say that this is first time World Environment Day is being celebrated in Kibosho; it is our sincere hope that it will be a yearly event during which we shall get time to look back on our achievements made so far and correct our mistakes done over time.

Guest of Honour, we are indeed very grateful to you personally for accepting our invitation, without forgetting the Regional leaders, District leaders, the representatives from the Head office, and the Divisional Forest Officer for his good cooperation. Special thanks should go to Mr. Chuwa, for he is the brain behind all this and without him we would not be here today.

Finally, I want to remind you all to stick to our motto: **REMEMBER TO CONSERVE OUR NATURAL RESOURCES ALWAYS.**

Mr. Msyani read the following speech on behalf of the Principal of the College of African Wildlife Management, Mweka:

Invited Guests,
Ladies and Gentlemen,

Environmental conservation dates back to 1870 in North America. In those days, people had no regard for natural resources and nobody cared what was happening. There were no bylaws prohibiting people from doing whatever they wanted with the environment. A few sober minds were disgusted by this trend, for they thought that if the destruction goes on like this, there will be nothing left for the coming generation. So they advised the government to set aside special places where natural resources would be conserved. In 1872 the first National Park was designated and it was called Yellowstone National Park. Other countries followed their example, like South Africa. Theirs was called Kruger National Park, and it was started in 1897. In 1951 Tanzania started its own National Park, called Serengeti National Park. At that time National Parks were solely meant for wildlife, workers, and tourists only. All other people should settle outside the park and have nothing to do with the affairs of the park. Apart from watching wildlife and taking pictures, nothing else was allowed to be taken away. Kings, Sultans, and Chiefs set aside their own parks for hunting but these were small areas only.

People living around the National Parks were very hostile to natural resources because they were kept aloof in matters concerning the parks. But now the trend has changed, for no progress can be achieved without their cooperation. They are now being educated in matters concerning the environment and their attitude has changed tremendously.

In the past, parents used to instil environmental conservation in children's minds by telling them stories of animals and their behaviour in the wilderness. Through this, children learned quite a lot about wildlife and the environment. Today we are witnessing the **OFFICIAL INAUGURATION OF MALIHAI CLUBS IN KIBOSHO EAST**. Every one of us should be very proud of this, as it is a foundation stone for our future generations.

Natural resources can be preserved in several ways, namely: protection of wildlife in National Parks, planting trees in our own environment, and protection of forests. Trees are not only good to human beings, but are also good to other creatures for their existence. Trees prevent soil erosion, act as a wind barrier, and attract rain, etc. Our College is ready to assist in all possible means to conserve the environment, especially from the technical aspect. I therefore convey my sincere thanks to you Mr. Chuwa, the Chief Patron of Malihai Clubs Kibosho East, for the excellent job done, the voluntary spirit you have shown in starting the clubs in Kibosho, and the tireless efforts you have put into conserving the environment.

I also would not forget your colleagues, the teachers and students of primary and secondary schools for their co-operation in making this day a success, and making Kibosho look green once more. I should not forget Malihai Clubs, Arusha for working closely with you to achieve what we are seeing here today. However, the spirit you have cultivated of working together should be directed, so that next year when we assemble here for a similar occasion we see more wonders.

Thank you all.

After the speech the Guest of Honour planted a tree (*Syzigium guinensee*), to mark the climax of the occasion, followed by dinner.



20
Guest of Honour planting a tree on the
climax of Environment Day – 1996.



21
Songs and dances about conservation of the environment.



22
Cultural dances by members of Sungu Primary School.



23
Visitors and members who attended Environment Day activities - 1996.



24.

Guest of Honour, Mr.Msyani, in a group picture with various leaders who attended Environment Day - 1996, celebrations.

After dinner the Chief Patron gave a word of thanks by saying the following:

Guest of Honour,
All invited Guests,
Ladies and Gentlemen,

First and foremost I would like to express my sincere gratitude to each one of you personally, for accepting the invitation extended to you by the teachers to come and grace this auspicious occasion of **INAUGURATING MALIHAI CLUBS IN KIBOSHO EAST**. This kind of spirit encourages us to do even more for our Division. I am also taking this opportunity to thank the Coordinator of Malihai Clubs, Arusha to allow me to start this programme in Kibosho East.

I personally did not expect we would be able to reach the stage we are at now, given the time constraint we had in making the preparations. However, the magnitude that environmental conservation has reached made this day a success. I therefore would like to thank the villagers and the management as a whole for planting trees and promising to protect them. I should not forget to thank the organisers of this occasion and the host management for the sleepless nights they spent in organising the function. They did not do that because I come from this village, rather they did it voluntarily because they are now aware of the importance of conservation of the environment. My intention now is to see that these celebrations rotate in all centres in Kibosho East and finally reach the national level.

Guest of Honour, this year we have received various presents from my friends in America, the Rafiki/Friends Foundation, who are zealots in conserving the environment and love Tanzanian children. These presents came just in time, as we were making preparations for this event, and I believe they acted as a catalyst in motivating our schools to protect natural resources for our benefit and that of the whole world. I therefore convey my heartfelt gratitude to them and their entire management for their valuable kindness, and I request them not to get tired of us.

I appeal to all those schools which received these expensive presents to handle them with care and see that they are not vandalised. I wish to remind all those who received tree seedlings to look after them, for I want a report during a similar occasion next year. I am pleased to hear that a committee has been formed to oversee the progress and visit all institutions and schools which were presented with the seedlings. Those that do well will be rewarded.

The level of education here in Kibosho East is very low, but you will be surprised when environmental conservation is in full gear, teachers will request to come to teach in Kibosho. Our friends, the Rafiki/Friends Foundation, have agreed to renovate Sungu Primary School.

I once more thank the Guest of Honour for allowing our students to visit their College to learn more about wildlife and vegetation, so as to groom future zoologists/botanists. Since the College and our own families draw water from the same source, it is evidently clear that we should protect our water sources and this is what has united us even more.

Thank you.

This speech marked the end of the celebrations.

STUDY TOUR TO LAKE MANYARA AND NGORONGORO CRATER

When Mr. Chuwa was going around to schools opening Malihai Clubs and sensitising teachers to conservation, he learned that none of the teachers had visited our National Parks. So he proposed to make arrangements for the teachers to visit the parks first so that they know what to teach the students. Later on he will arrange for students to visit the parks and see for themselves what they have been taught. Everybody got excited, for they thought it is too good an idea to be true. Soon a preparatory committee was formed, comprised of two teachers from every school. After finalising his plans, Mr Chuwa informed us that the trip would be on the second week of December, so everyone should take along with him/her a notebook and a pen. Series of preparatory meetings took place, but none of us knew what it entailed to go to a National Park, considering that we have never been on such a trip. As the day for the journey approached, some of us started to despair for we imagined – “What would happen if we come face to face with an elephant??” There were lots of imaginations and illusions, which made some of us think of dropping out. The Chief Patron saved the situation. He explained to us how such tours are conducted and that there is no need for fear, for in addition to himself, there are trained and experienced guides who would take us round to explain to us everything. We were going to see treasures, and so we would not regret. With this kind of perspective, all fear vanished.

The day chosen for the trip was a cool, cloudy Thursday morning. It was drizzling, but out of excitement, nobody noticed!! We assembled at a specific venue and waited for a truck to take us to the National Park. The College of African Wildlife Management, Mweka volunteered one of their trucks, and at 6.30 a.m. we took off. Word passed around that our Chief Patron would join us at Lake Manyara from his research tour of Tarangire National Park. We were all overjoyed. We drove straight to Moshi, where we picked other members, and proceeded to Arusha, where we drove straight to Malihai Clubs Headquarters. Since we had not informed them, we did not find anybody in the office, for they had gone to a meeting at Lake Duluti. We then left for the central market to buy some provisions for the journey and drove off to our destination. On our way we passed a small town called Makuyuni. Here the people are mainly Masai and a few other tribes. Their main occupation is the tourist trade. They make beautiful beads, carvings, and paintings that depict their culture. They paint beautiful animal pictures and others, depicting their surroundings, and sell them to tourists. Since all the items are meant for tourists, their prices are exorbitant. The Masai have become liberal, changing their conservatism to western culture, and now agree to take pictures with tourists, though for a fee, something which was unheard of in the past. All in all they have not yet changed their attire!! Here tourists mingle with the Masai so well that you would think they are of the same culture and habit. From here we entered a rough and dusty road, but no one noticed the danger as we were all too excited. We managed to see antelope, giraffe, and many other animals, of which we did not know their names. We soon arrived at another small town called Mto wa Mbu.

Suddenly the weather changed and became really hot. Here the scenery changed abruptly from dry grass to green surroundings. At a distance we could see the blue waters of Lake Manyara and the Rift Valley. This aroused our excitement even more.

At last we arrived at Lake Manyara, our long awaited destination. Our host, the Chief Park Warden, gave us a rousing welcome. He immediately took us to our hostel, where we took a short rest. Minutes later shouts were heard outside, "Chuwa, Chuwa, Chuwa." Everybody jumped out of the room and went to hug and welcome him. After exchanging greetings, we started preparing our supper. We had a very good supper served with all sorts of drinks, after which we watched a film on wildlife taken from Lake Manyara. We really enjoyed ourselves. Before retiring to bed, Mr. Chuwa gave us the itinerary for the following day, after which everybody went to bed dead tired. It rained very heavily throughout the night. Not all heard the downpour for they were too tired. It was a lullaby for them.

Early the following day, after our breakfast, we set off at 6.15 a.m. The weather was cool, as it had been raining all night. We descended the Rift Valley and on the left we could see Lake Manyara, covered with its dense forest. On our way we could see baobab (*Adansonia digitata*), acacia, umbrella tree, etc. Then we arrived at a viewpoint, where we stopped for a few minutes, and one of us spotted a very beautiful red flower called Isale Iya Chofu (*Aloe volkensii*), which is a plant found in Kibosho too. We passed through highlands where the whole land was covered with wheat fields. We proceeded on and arrived at a small town called Karatu. Here we had to stop for the driver to check the truck.

After riding for forty minutes, our truck got stuck in thick mud. All the men got out of the car and pushed it out and we drove on. After a few minutes drive we arrived at Ngorongoro Crater through a very thick forest. Though all of us came from the slopes of Mt. Kilimanjaro, none of us had ever visited such a forest, so this was a surprise for us. We entered the Crater through the Big Gate called Loduare. There we saw the Big Caldera (Crater). It was marvellous. It was so big that we couldn't believe our eyes, as we had never imagined seeing such a big rift. Our Chief Guide, Mr. Chuwa, told us that we had entered through a viewpoint used by the first European to enter the Crater, and so it is a remembrance for people like ourselves who were visiting the Crater for the first time. We then proceeded on to the Conservation Area where we were met by the Assistant Conservator of Tourism, who gave us a very warm welcome. We drove off toward the Crater, where we passed through a very steep slope meandering around the Crater until we finally reached the bottom. This part of the road was very tricky, and everybody wanted to get off the truck and walk on foot, but the stretch was too long. On reaching the Crater, every one of us forgot all about the road, and started admiring one of the Eight Wonders of the World. We saw so many animals, some of which we had never heard of, birds of all kinds and flowers, etc. We drove to a place known as Ngoitoktok Springs, which is a Masai word meaning bubbling water.

Here we stopped for a short while to have refreshments and snacks, and in the meantime our expert, Mr. Chuwa, gave us a short history of the Crater amidst gnawings from animals like hippos, rhinos, etc. Due to his love of wildlife, he saddened when he told us that the rhino was on the extinction list, but frantic efforts are being made to rescue the animal from poachers. He also told us the names given to those kindly but ugly looking animals. Everybody was busy taking down the names of the different animals he told us. We then entered a forest called Lerai, where we saw many elephants. He told us that all were males. Females and the young ones (calves) do not come down the crater for fear of the steep slope. Some

of the animals came very close to our car like buffalo, monkeys, etc. Some of us screamed and ran away, but our Chief Guide, Mr. Chuwa, was always there to give us confidence that nothing dangerous would happen to us.

Time to ascend the Crater came. Fear surrounded each and every one of us, because when one looked at the steep slope and the gradient, coupled with the narrow slippery path which our truck had to meander, and not forgetting the sharp corners, our hair stood on end. Very meticulously, the driver passed through the snake-like path, while every one of us was tight lipped, saying all sorts of prayers. Soon we reached the top. Hurrah! We finally ascended safely. No sooner had we arrived than it started pouring like the previous night. We were quickly ushered to a dining room, where we found a buffet awaiting us. We sat down to eat, and after the delicious meal, we were shown around the Crater facilities. We were taken to the Fig Tree Bar, a bar built around a fig tree. To us it was one of the 'Wonders'. We were told that it is unlike any ordinary bar we had seen.

In the evening we started our journey back to Lake Manyara. On arrival, we took our supper with our Chief Guide telling us all sorts of funny stories, just to amuse us. After supper he gave us the programme for the following day, and with that in mind we retired to bed. As usual we woke up early, took our breakfast, and readied ourselves for the tour to Lake Manyara.

Mr. Chuwa briefed us a bit before we left, after which Mr. Mushi, the Tourism Warden, accompanied us. We passed through a thick forest. He told us that this is a unique forest, which is found only here and not anywhere else in northern Tanzania. Here we saw many animals like monkeys, baboons, giraffe, etc. On we drove to Hippo Pool, where we found a lot of hippos and flamingos in the lake. Here we were very fascinated to see the giraffe at such close quarters. We were now used to the animals and nobody had fears. Passing through the forest we saw how elephants were felling trees, and were very disgusted at the way they were destroying the environment. We were then taken to a campsite for a short rest where the Tourism Warden gave us a history of the Park. We were unable to go to the Park, as the roads were impassable due to the heavy rains, so we went back to our hostel, ready for the journey back home. We passed through a Snake Park and saw all sorts of snakes. As if this was not enough of a surprise, we saw people riding a camel!!! We live in a mountainous green area throughout the year so it has never been possible for us to see a camel.

We continued with our journey and finally reached home at 6.30 p.m, of course very tired, but with a lot of news to tell our families, friends, and students. It was indeed a very exciting tour which everybody liked and enjoyed.

WHAT WE GAINED FROM THE TOUR

Throughout this trip, we came to know each other and learned many things from each other from the several preparatory meetings which took place in different schools. We mingled with each other so well, that it ended up being a big family gathering. In fact, we are now one family under the guidance of our Chief Patron. We gained a lot of practical experience and knowledge. We actually saw in real life all that we have been reading in books, and it will be much easier to impart the

knowledge so gained to our students. The geography and science teachers in particular are the ones who profited most. It was a good time for teachers to relax mentally and physically. The fruits of this tour did not take long to be manifested. No sooner had we arrived, than a teacher took a group of students to Lake Manyara and Tarangire!!!



25

Ngorongoro Crater is famous for its wildlife, like this rhino, which is walking majestically between these cars without fear. Many tourists flock to this place to see them.



26

Malihai Club members from Kibosho East admiring wildlife at Ngorongoro Crater.



27

Ostriches were a great attraction. We saw them very closely and we came to learn that the black ones are male.



28

Here the teachers are listening to the Park Warden of Tourism, Mr. Mushi, after touring the Park.

SEMINAR FOR THE PATRONS OF MALIHAI CLUBS – KIBOSHO EAST

The objective of this seminar was to sensitise and educate the Patrons concerning methods of organising and running their branches, and to discuss the roles the students are supposed to play. The Seminar took place at the Malihai Head Office in Arusha. Transport costs and stationary were met by the Rafiki/Friends Foundation, and lunch was provided by the Chief Patron, Mr. Sebastian Chuwa, in collaboration with the Coordinator of Malihai Clubs of Tanzania.

We set off for Arusha on a misty, cloudy day in the company of our Chief Patron. On our way we stopped to take breakfast, and then we proceeded on to our venue, which is right at the centre of Arusha town. The place was really beautiful, with well arranged trees, flowers of all kinds decorating the path to the gate, and butterflies busy transferring pollen from one flower to another. The green lawn was well trimmed. The place looked really 'Malihai'.

Our host met and took us to the seminar hall around 9.00 a.m. There were self introductions and then the meeting agenda which was as follows:-

- Short history of Malihai Clubs Tanzania
- Scheme of Service of MCT
- Objectives of MCT
- Administrative role and duties of MCT
- Role of the Secretariat
- Places to visit after the Seminar

He started by giving us a short history of Malihai Clubs and explained the role of the Clubs. He told us the duties of the Secretariat and the structure of MCT. He then told us how to run and manage our branches, what our role was as patrons, and how to solve problems that would occur from time to time. Then everyone gave his/her report, highlighting problems encountered over time. These were solved by the Chief Coordinator.

Then followed the last agenda, which was to visit the Arusha Museum and Mt. Meru Game Sanctuary. Before we could embark on our tour, we watched a video show about the environment which was prepared by the Marangu Teacher Training College branch. Just next door was the Arusha Natural History Museum. We were shown very many archives. There were statues curved out of stone and many other ancient things. What impressed us was the way the building was being maintained, showing how serious the government is about the environment for the little portion that has already been finished. We then drove to the Game Sanctuary which is about 10 kilometres from the place. Cool weather and green surroundings were what fascinated us. The Chief Warden of the sanctuary met us at the gate and took us straight to the zoo, where we saw many animals kept in cages, and others kept in the same surroundings as those found in the National Park.

Some of the animals kept here are rare to see in the National Park, like porcupine, leopard, serval cat, cheetah, crocodile, chimpanzees, tortoises, peacock, pelicans,

secretary bird, and eagles. There were also animals we saw in the National Park, like elephant, zebra, eland, vervet monkey, etc. These animals are very friendly to human beings, to such an extent that you could even feed them. Each one of us took a picture feeding an elephant. We then drove to the Usa River for lunch. During lunch the Coordinator told us how expensive it is to maintain these animals in the sanctuary. As they cannot fend for themselves, food must be bought and trees must be planted for birds to live in. Short of all these facilities they would run back to the wilderness. Moreover, they need treatment once they fall sick. The government, together with some donors, contribute to their welfare.

Before we left, we took a group picture with our Coordinator and Sebastian's friend, Godfrey Kishongo Mbise, who is from Meru, Arusha. We invited him to come visit us and he promised he would do so after notifying us. We thanked the Coordinator, after which we left for home.

The participants enjoyed this seminar very much. They were educated in so many ways about how to run their branches, and they had a chance to see the museum and the sanctuary.



29

Malihai Club Patrons getting into the bus ready for their trip to Arusha.



30
Listening to the Coordinator of Malihai Clubs, Tanzania,
Mr. Peter Ottaru, when he was stressing a point.



31
Seminar participants outside Arusha Natural History Museum.



32

A group picture of Patrons from eight schools in Kibosho East who attended the seminar in Arusha with their Coordinator of Malihai Clubs, Tanzania, Mr. Peter Ottaru (third from right). Next to him is Mr. Godfrey Kishongo Mbise from Meru, Arusha.

CHAPTER TWO

WORLD ENVIRONMENT DAY – 1997

We were glad to be told that our Division had been chosen to host 1997 World Environment Day in the Northern Zone, the main reason being that we were in the forefront in conserving the environment in the whole region. Immediately the preparatory committee was formed and started its job.

A meeting was convened of all the Chief Patrons, heads of schools concerned, government leaders, and village leaders from Singa, Sungu, and Mweka. We told them about the purpose of celebrating Environment Day and the need to conserve the environment. They unanimously agreed, bearing in mind that it was a great honour to be chosen to host the occasion. The participants agreed that the guest of honour should be the Regional Commissioner. The number of guests was also discussed, together with sources of revenue for the occasion. It was agreed that people should be asked to contribute, subsidised by contributions from various organisations. The venue was agreed to be Mweka.

The venue was to be prepared as follows:-

- | | | | |
|----|--|---|---------------------------------------|
| 1) | To clean the surroundings | - | Mweka Primary School |
| 2) | To build the stage | - | Sungu village |
| 3) | To prepare the hall | - | Mweka village |
| 4) | To transplant tree seedlings | - | Singa and Singa Chini Primary Schools |
| 5) | To prepare the room for display of local medicines | - | Mweka Primary School |
| 6) | To prepare the room for environmental displays | - | Malihai Clubs Arusha |
| 7) | To make placards and pictures | - | Nsoo Secondary School |

East Kibosho Ward Students' Workshop in commemoration of World Environment Day 1997

On 28th May, 1997 a workshop was organised for all schools, to educate students about the importance of the environment.

Participants:

- | | |
|-----------------|------------------------------|
| Cosmas Tobias | - Singa Chini Primary School |
| Didas Rajab | - Singa Chini Primary School |
| Aristides Kiati | - Mapinduzi Primary School |
| Victoria Tomas | - Mapinduzi Primary School |
| Renatus Andrew | - Msinga Primary School |
| Mary William | - Msinga Primary School |
| Anna Michael | - Kibosho Primary School |
| Frank Kashiri | - Kibosho Primary School |

Oscar Pascal	- Sungu Primary School
Peter Silale	- Sungu Primary School
Prosper Francis	- Mweka Primary School
Fathil Hubert	- Mweka Primary School
Prosper Minde	- Nsoo Secondary School
Innocent Shio	- Nsoo Secondary School

The following resolutions were made:

- 1) That we shall not fell trees haphazardly without replacing them. Our motto should be: "Plant trees, cut a tree."
- 2) That we shall not destroy water sources by cultivating and settling along river banks. We shall conserve and maintain our water sources.
- 3) That we shall not harvest honey by using fire. These fires destroy our forests.
- 4) That we shall not go to the forest to carry timber to be sold to pay our school fees. Our parents should look for another alternative means of gaining income. Our motto is to plant trees for the benefit of future generations.
- 5) That we shall no longer go the forest to cut timber to build houses. Our main objective is to plant trees for future generations. Our parents should not have felled the trees planted by our ancestors.
- 6) That parents should acquire plots in low lying areas, not on river banks or in the forest.
- 7) That we will have to do away with the old custom of clustering together on a small farm. This destroys the environment. We should move to more spacious areas where we can bring development by planting trees and observing environmental rules.
- 8) That we shall no longer go to the forest to collect firewood to be sold as a means of income. It is forbidden to subject children to hard labour. Our rights are to study and play. It is the duty of our parents to look for other means of supporting the family.

PREPARATORY PLAN FOR ENVIRONMENT WEEK, FROM 1/6 – 5/6/97

DATE	ACTION	RESPONSIBLE
1/6/97	General cleaning of all schools	Singa Chini Primary School
2/6/97	To plant trees along Mweka route in addition to other trees-15,000 seedlings to be planted	Singa Chini, Msinga, and other Branches
3/6/97	Cleaning of Kibosho Hospital and its surroundings	All the Branches together with Singa and Sungu Villagers
4/6/97	To reinforce the fence of Mweka Primary School and plant trees surrounding Kichao Well	Mweka School Management in collaboration with villagers

PROGRAMME OF WORLD ENVIRONMENT DAY 5/6/97

TIME	ACTION	RESPONSIBLE
10.00 – 10.30 a.m.	Arrival of visitors	Visitors
10.30 – 10.35 a.m.	Song	Singa Chini Primary School
10.40 – 10.45 a.m.	Poem	Mweka Primary School
10.50 – 10.55 a.m.	Cultural Dance	Sungu Primary School
11.00 – 11.05 a.m.	Poem	Omi Primary School
11.10 – 11.25 a.m.	Cultural Dance	Mweka Villagers
11.30 – 11.35 a.m.	Play	Mapinduzi Primary School
11.40 – 11.45 a.m.	Song	Kibosho Primary School
11.50 – 11.55 a.m.	Cultural Dance	Msinga Primary School
11.55 – 12.00noon	Workshop Resolutions	All Schools
12.00 – 12.15 p.m.	Introduction	Chairman
12.15 – 12.45 p.m.	Speeches from various leaders	Leaders
12.45 – 1.00 p.m.	Awarding of presents	Guest of Honour
1.00 – 1.15 p.m.	Speech	Secretary Malihai Clubs
1.15 – 2.00 p.m.	Speech by Guest of Honour	Guest of Honour
2.00 – 2.10 p.m.	Plant a tree for commemoration	Guest of Honour
2.10 – 2.15 p.m.	Group Picture	All
2.15 – 3.45 p.m.	Lunch	All
3.45 – 4.00 p.m.	Word of Thanks	Chief Patron
4.05 p.m.	End	All

CELEBRATIONS ON ENVIRONMENT DAY - 1997

Since it was during the rainy season, it had been raining all night and all morning, but when afternoon approached, it stopped raining to allow us to celebrate our important day well. The Guest of Honour arrived after all the invited guests had taken their seats. Participants first went to see the displays of different types of local medicines, the Environmental Conservation Show Room, a tree nursery, etc. The Guest of Honour then planted a tree called Mtopetope or Custard Apple tree (*Annona reticulata*) and proceeded on to the stage.

There followed songs, poems and plays as follows:

Poem by Nsoo Secondary School:

Today we are celebrating Conservation Day.
The Malihai Clubs have prospered.
They have set objectives for direction.

Chorus: To conserve the environment for our benefit.

The inheritance is wealth, environment is perishing.
We should value the environment and treasure it.
We should proclaim the environment wherever we are.

Chorus:

Welcome Malihai, we have an important task ahead.
Posters everywhere on the environment,
We shouldn't neglect, it is our livelihood.

Chorus:

Forests are burned everywhere,
Destroying environment, inviting deserts.
Forest fires are dangerous.

Chorus:

Trees are felled with no consideration,
Soon the whole world will be turned into a desert.
We are due for disaster if we are not careful.

Chorus:

Sea creatures are disappearing,
Pollution everywhere,
Our inheritance is vanishing.

Chorus:

The World Nations have raised their concern,
Brazil made resolutions,
Let the world regret environmental destruction.

Chorus:

Tanzania is rich in natural resources,

National Parks, beautiful mountains,
Tourists come to see our natural beauty.

Chorus:

Tanzania's beautiful National Parks,
Ngorongoro, Serengeti, attract,
Manyara also, Kilimanjaro is the best.

Chorus:

We should conserve water resources,
Mountains, sources of water we should conserve.
Water is our livelihood, it is valuable.

Chorus:

The rains are fruits of the environment.
We get attractions, we should bear in mind
Our economy grows through Malihai.

Chorus:

All different leaders observe the environment.
The nation should be covered with good environment.
Everybody should agree to this.

Chorus:

Lastly, environment should prevail.
Enough of the destruction,
Encourage Malihai to conserve the environment.

Chorus:

Song by Nsoo Secondary School:

Today is a joyful day in Kibosho.
Guests have come to celebrate Malihai.

**Chorus: Dear father, mother, brother and sister,
Let us join Malihai, we shouldn't wait for tomorrow
To foster Malihai.**

We appreciate your attendance,
To come and join us in celebrating Conservation Day.

Chorus:

You are most welcome,
Just feel at home with us.

Chorus:

You ask yourselves how to conserve the environment.
We shall give you the answer.

Chorus:

Once we initiate environment,

We should protect it.

Chorus:

Who initiated? The Founder, Mr. Chuwa,
For all our schools.

Chorus:

We all should volunteer to seek the culprits,
And take punitive measures against them.

Chorus:

Evacuate the riverbanks, all who have settled there,
Before we force you out.

Chorus:

Lastly we wish you a safe journey back home.
May God Bless You All.

Chorus:

Poem by Mweka Primary School:

I am coming to air my views,
Emphasise environmental conservation.
Let us join hands in protecting our environment.

Chorus: *Protect the environment for own good.*

You said you were coming to air your views,
What views?
Environmental conservation, I want to understand,
You have to educate me on that.

Chorus:

My friend let me tell you something,
People are complaining about destruction of wildlife and vegetation.
We are going to be ashamed, as there is an imminent situation ahead.

Chorus:

Let me mention what kind of destruction,
Forest fires, pollution,
Water contamination.

Chorus:

Forests are burned all over the world.
That inheritance is wealth, environment is vanishing,
Deserts are approaching.

Chorus:

Let us not burn our fields and forests.
Our toilets should be far from the house.
Factory wastes should be burned.

Chorus:

We are the cause of dry weather.
The deserts are shooting like bullets.
Cut a tree, plant trees, should be in our blood.

Chorus:

It is necessary to protect the environment.
Trees are natural resources.
Timber, herbs are plenty in the forest.

Chorus:

Land is the mother of everything.
We should protect it as it is our wealth.
Whoever misuses it, let him be ostracised.

Chorus:

Let us not forget our National Parks,
Serengeti, Ngorongoro, Manyara, and Mikumi,
They keep wildlife to attract tourists.

Chorus:

Elephants and zebra decorate our Parks,
The old man elephant is there,
And others are equally attractive to watch.

Chorus:

We profit a lot when we protect the environment,
Foreign exchange, rain, and firewood -
To protect the environment and get clean water.

Chorus:

We have benefited quite a lot,
To speak out for the environment,
To spread education everywhere.

Chorus:

Go and tell others all that you have heard,
So that they may learn the importance of the environment,
And future generations get something to inherit.

Chorus:

Observe the following:

Factors contributing to pollution of the environment:

- Cigarette smoke
- Overstocking
- Smoke from charcoal stoves
- Pesticides

- Industrial pollution
- Fumes from motor vehicles

Poem by Omi Primary School:

We are coming, reciting our poem,
 To all invited guests and villages.
 This is an important day, we charge you that -
Chorus: To protect the environment is our responsibility.

Today we are celebrating environmental week,
 The whole world is celebrating.
 We have made resolutions to avoid its loss.
Chorus:

Let us protect our water sources;
 Let us not destroy our forests, the source of water.
 Water is life, to us it is precious.
Chorus:

We are driving campaigns in our Division
 To plant trees everywhere, from Division to International level.
 We are making concerted efforts.
Chorus:

We are echoing our voices all over the country
 To conserve the environment,
 Our vegetation as well as wildlife.
Chorus:

Environment is life, and we know its benefits.
 Vegetation has life, as its friends, wildlife.
 We benefit through these.
Chorus:

We wipe out vegetation by fire,
 Vegetation and wildlife, all these are destroyed.
 Let's protect wildlife, vegetation.
Chorus:

Inhabitants of Kilimanjaro,
 We have been spared from the fire,
 Many elephants perished,
 Congratulations to Regional Commissioner, Professor Mbwiliza, and District
 Commissioner, Simon Mbesere for assisting in putting out the fire.
Chorus:

Creatures in the sea are diminishing day by day,
 Due to industrial pollution and other toxins.
 Dynamite fishing should be banned.

Chorus:

Let us be careful,
Tanzania is rich in natural resources,
Poachers should be severely punished.

Chorus:

Congratulations, Mr. Sebastian Chuwa,
For your true devotion in becoming the Chief Patron.
We shall follow your footsteps.

Chorus:

You commenced these activities in 1992-
Environmental Conservation,
To grow tree seedlings.

Chorus:

With God's blessings the seedlings thrived.
You distributed them without prejudice to all villages,
Trees everywhere in all our schools.

Chorus:

The Chief Patron of Kibosho East
Introduced the Brazil Resolutions to the entire Division,
Inaugurated Malihai Clubs in all schools.

Chorus:

We thank our visitors for coming.
We end up here,
Appealing to every one of you to adhere to what we have just said.

Chorus:

Play by Mapinduzi Primary School:

A meeting was convened by the Village Chairman to sensitise his fellow villagers about the importance of conserving the environment. He invited a Forest Officer to talk to the people and tell them about the adverse effects of destroying the environment and the benefits gained in protecting it. After the presentation he was asked questions by the villagers, which he clearly answered to the satisfaction of all.

Then the Chairman thanked him and all those present, and appealed to them to follow what the Forest Officer has said.

Song by Kibosho Primary School:

Today is a joyful day
To celebrate Malihai.
Welcome all invited guests
To celebrate Malihai.

Welcome our visitors
To see what we have done,
To protect the environment
In our schools and homes.

From the Ward to the Division level
We lead in environmental conservation.
Kibosho East Division,
We are a shining example in environmental conservation.

It is the livelihood of our Nation,
The forests are the sources of water.
Let them exist for ever.

Congratulations, Mr. Chuwa,
For inaugurating Malihai in Kibosho.
We are happy to have plenty of trees,
Congratulations, Mr. Chuwa.

It is high time for you all
To participate in conservation,
To plant trees everywhere.
That is our motto: Plant trees, cut a tree.

Look at our schools,
They are beautiful and we look smart.
We have maintained physical hygiene,
Malihai has taught us all these things.

We are now very healthy,
Development is starting in our Division.
We get timber to make desks
To educate all Tanzanians.

It is the duty of all members
To educate the mass,
To understand the truth of life
For the good of the nation.

We have enough pots
To plant seedlings,
Orchards, and timber,
Trees for shade and fresh air.

Our beautiful flower gardens
Surrounding our schools,
Plenty of vegetable gardens,
We are self-sufficient in food.

We have received lots of sports gear.

Malihai Clubs love us.
We have received books also to educate ourselves.
Congratulations, Mr. Chuwa.

Song:

Listen to our cry,
From Kibosho
Our forests are vanishing.

**Chorus: Plant trees, cut a tree,
For the good of your future.**

Kibosho schools are the leaders
In Malihai Clubs all over Kilimanjaro.

Chorus:

Mr. Chuwa is our Leader
Who heads the Malihai Clubs.

Chorus:

We have beautiful flowers in our schools
Surrounding our environment.

Chorus:

Song from Singa Chini Primary School:

It is high time for all Tanzanians
To put more efforts into the environment
In order to bring about good development.

**Chorus: We appeal to everyone
To conserve the environment.
From village to national level,
Development is brought about by good environment.**

Quality environment in schools is very important,
Nice buildings and enough tools.
It is important for the government to observe this,
For schools without buildings are like an axe without a handle.

Chorus:

It is important for teachers to advance themselves
To increase their knowledge.
Parents and teachers should co-operate.
School is not an island, but a centre for education.

Chorus:

Awarding of Prizes and Certificates:

To encourage the villagers to conserve the environment, various presents from Malihai Clubs/Arusha were awarded to the best schools and outstanding people who

did their level best to conserve the environment. The first school was Omi Primary, the second one was Sungu Primary School, and the third one was Mweka Primary School. All got books with pictures of birds and animals and certificates. Others were villagers from Singa being the first, Mweka was the second, and Sungu the third. All got certificates and agricultural tools.

Then there followed the crowning of the Chief Patron and the Pioneer of all these events, Mr. Sebastian Chuwa. He was chosen the Best Conservationist of the Year, 1997. He was clad in a local robe and given a spear and an arrow as a brave man who fought bravely all calamities which came his way in establishing the idea of conserving the environment. Without the good cooperation of his wife he would not have been able to achieve all this, and so she was also awarded some presents as a token of appreciation.

Mr. C. Mushi, the Chairman of Malihai Clubs Division in Kibosho East, introduced all the invited guests who later gave speeches as follows:

Speech by Mr. P.Ottaru the Coordinator of Malihai Clubs of Tanzania:

Guest of Honour,
Invited Guests,
Ladies and Gentlemen,

First and foremost, I would like to thank you and all the invited guests for accepting our invitation to come to celebrate World Environment Day. I also would like to take this opportunity to thank the Chief Patron with his team, the Malihai Club members, for all the preparations done over a period of time to make this day a success. I promise to co-operate with them very closely and make sure that all that has been started will continue.

In 1972 the United Nations chose the 5th of June to be World Environment Day after seeing how the environment was being abused throughout the world. It was commemorated for the first time in 1974, and today we are joining our counterparts throughout the world to celebrate it in Kibosho.

On this day we reminisce about our past progress in conserving the environment. We look back to see progress made in trees planted, progress made in nurturing seedlings, etc. In the past people used to plant trees and leave them to care for themselves. Many trees died and never got replaced. As a result the land remained bare.

I would like to stress here that all the activities done throughout the week should not cease henceforth. Let them be the order of the day, and in that way we shall make our Division green and clean. You should also teach your parents how to conserve the environment so that not only schools look green, but even your homes. Every one of you should strive to do the best so that on such a day the best school gets rewarded.

Guest of Honour, let me give a brief history of Malihai Clubs. Malihai Club activities extend beyond planting trees. These clubs are found in all East African countries, but with different names. In Kenya and Uganda they are called Wildlife Clubs. The name notwithstanding, we work hand in hand with each other in all affairs concerning our clubs. Kenya was the first to start, followed by Uganda. We were the last. We were first organised like a Department of Environmental Education under the National Parks, and in 1985 were under the Board of Trustees of Tanzania's Wildlife Protection Fund. The head office of our Secretariat is in Arusha. In order to diversify our activities we formed two zones, namely, the Northern Zone and the Lake Victoria Zone. The Lake Victoria Zone serves Mwanza, Kagera, Shinyanga, and Mara. In all these zones we have networks like the Kibosho East Network, which is in the Northern Zone.

Therefore, the duty of Malihai Clubs is first to sensitise members about conserving the environment. We started with students, who would pass on the message to their parents, the outcome of which will have far reaching effects. Through this we can achieve our goal. Not only youth can join these clubs, even adults are welcome as associate members. In addition to sensitising members, they will contribute towards our journal by writing articles on the environment. Members and non-members are all invited to send us articles on the environment.

In 1990 the Government saw the need to start a department dealing with the environment only. We work very closely with all institutions dealing with the environment. All that you have done this week was on a voluntary basis, which proves how you are committed to the environment.

Once again I would like to remind you to take good care of the trees you planted so that you will be proud to show them next year. Please pass on the spirit to your parents and this will make Kibosho the greenest area in the whole Kilimanjaro Region.

Speech from the Rector of Kibosho Senior Seminary:

Guest of Honour,
Invited Guests,
Ladies and Gentlemen,

We at our Seminary conserve the environment very strictly. We always plant trees, bearing in mind that we are between two rivers, Karanga and Nsoo. People have cultivated along the riverbanks and caused soil erosion. When I was studying there in 1968, I planted a lot of trees knowing very well why I was doing so. Today I am very proud when I look at them.

On coming back in 1985, I have been emphasising to students to plant plenty of trees for shade, fruit, and beauty. We should abide by the words taught us by these children in order to achieve our goal. They tell us to cut a tree and plant two, but I am saying to cut a tree and plant five or ten.

Thank You

Speech by the District Natural Resources Officer:

Guest of Honour,
Invited Guests,
Ladies and Gentlemen,

First of all I would like to thank you for your beautiful songs and poems. We were all moved by the way you cultivated the culture of preserving the environment at your tender age. Being a government representative, I am really impressed by what Malihai Clubs have done with regard to conserving the environment. This is our duty, but Malihai Clubs have gotten into our shoes and done a tremendous job. Everywhere you go, you see destruction of the environment but nobody cares. All the Clergy present here will agree with me that God decorated the earth with beautiful trees, flowers, birds, animals etc., but due to our own stupidity we have destroyed everything by craving for wealth because we want to live comfortably, not bearing in mind that we are turning the world into desert.

The other day as I was watching TV, I saw places like Monduli, which has been turned into a desert, and this has resulted in the death of wildlife as well as domestic animals. Dodoma is another place which is completely dry for lack of trees to catch rain. We are blessed to have crystal clear water flowing from Mt. Kilimanjaro, and yet we are abusing this privilege by cutting down trees. Worse still, we are burning our forests. As a result of all this destruction, all rivers and streams will one day dry up. What I want to emphasize today is that we should conserve what we have and add more. We from the Forest Division say: Plant ten to twenty trees and cut one. We don't say cut one tree and plant five. For in those twenty planted, five will definitely grow to maturity whereas in the case of five, one, or two, or none, will reach maturity stage.

We should not ignore what these children have just told us in their play. They have taught us a very good lesson. Cutting trees for timber and firewood will make the whole village suffer from lack of water. They condemned those cultivating and living along riverbanks as they are the source of all these calamities. If we take these children seriously we shall hopefully retrieve what we have lost.

Thank You.

Speech from the Counsellor, Mr. L. Orot:

Guest of Honour,
Invited Guests,
Ladies and Gentlemen,

I would like to express my sincere gratitude to Malihai Clubs for choosing my Division to host the annual World Environment Day. I assure them that we shall not abuse this great honour bestowed on us. We shall strictly adhere to the norms of Malihai Clubs to the letter. Guest of Honour, please note that not everybody in this Division is the enemy of conservation. There are good people with good farms and plenty of trees and they take good care of them. My colleagues and myself shall cooperate with the villagers to make sure that everybody lives in a conducive

environment as it has been insisted by these children. We have been chosen from the entire Northern Zone to commemorate this day with our counterparts all over the world; we assure you that we will work very hard from now onwards to love and nurture the environment, so that when you come next year you will see changes. We want to reach a stage where we are going to excel all zones and be the first.

I conclude by thanking you for being with us today and ask my fellow villagers to put into action all that we heard today.

Thank You.

Speech from the Principal of the College of African Wildlife Management, Mweka read by Mr. E. Msyani:

Guest of Honour,
Invited Guests,
Ladies and Gentlemen,

The objective of our College is to conserve the environment. Let me give you an example of how to conserve the environment. When you receive your salary you budget it to last you till the end of the month. If you are extravagant you will finish all the money before the end of the month and you will lead a miserable life. Similarly with the environment — we don't know how much we have destroyed and how much we have left for the coming generation. So we should use the existing natural resources with utmost care.

Last year at a similar occasion, emphasis was laid on sensitising the public about environmental conservation. My College has been following very closely the efforts put on sensitisation and found out that the same zeal you had last year is the same one today and even more. Not long from now Kibosho East will be the best in conserving the environment.

Thank You.

Speech by Malihai Clubs – Kibosho East:

Guest of Honour,
Invited Guests,
Ladies and Gentlemen,

We would like to thank you for being with us today to celebrate World Environment Day. We would also like to thank all the invited guests and all the villagers for seeing the importance of attending these celebrations. The Malihai Clubs are very pleased to welcome you all.

Dear Guest of Honour, the idea of starting Malihai Clubs in Kibosho East was initiated by Mr. Sebastian Chuwa in 1992 when he voluntarily agreed to become its Chief Patron.

Guest of Honour, some of the activities done by our Clubs according to the constitution are:

- To protect the environment in our schools and homes (here we insist on hygienic conditions in our area),
- To plant and care for the trees,
- To emphasize environmental education in our schools, and
- To sensitise people to protect the environment.

Guest of Honour, some of the achievements made are:

- We have planted orchards, trees for timber, firewood, and coffee seedlings.
- Cooperation between schools and teachers has been enhanced.
- Physical cleanliness for students is very conspicuous now.
- Villagers around the schools have emulated the example of students in conserving the environment.

Guest of Honour, the Malihai Club network has enabled our teachers to visit National Parks and all the Patrons have attended a Seminar on Environmental Conservation at the Headquarters in Arusha.

Guest of Honour, in 1996 we celebrated World Environment Day in this Division. On that day we aroused the spirit of protecting the environment and some of those present have already practised what was taught to them. The same year, our clubs planted 10,000 trees of various kinds such as orchards and indigenous trees for timber, firewood, and shade.

We are indeed saddened when we see people felling trees for timber or firewood in a bid to get rich quickly, without considering the adverse effects this has on our environment. Already these effects have been seen in those low land areas, where during the dry season all the rivers and streams dry up.

We end up conveying our gratitude to all those benefactors who made this day a success.

Speech by the Guest of Honour:

Mr. Chairman,
Chief Patron,
Hon. Counsellor,
The Clergy,
Leaders of Different Parties,
Invited Guests,
Ladies and Gentlemen,

Before I begin my speech I would like to apologise on behalf of the Regional Commissioner for not being able to attend this important occasion due to unavoidable circumstances. Much as he would have liked to be with us to witness what our Chief Patron has organised today, it has been impossible, so please excuse him for his absence.

It is indeed a tedious job to organise such a big function and make it a success. I know how people have been running up and down, patching up things here and there to make this day a wonderful one. I say **BRAVO** to our Chief Patron, Mr. Sebastian Chuwa, who is the initiator of these celebrations, for without him we would not be here enjoying ourselves today. I would like to take this opportunity to thank him personally and all who participated in one way or another to make this day a big success. I also want to thank the cultural group, for they have made my work easy, as they have said everything in their songs, poems and plays. My sincere thanks to all those who prepared these children. You have been doing a commendable job throughout the week sensitising people about environmental issues, planting trees, etc., and today we have reached the climax, when we are joining our fellow environmentalists to commemorate this day. **CONGRATULATIONS**. The previous speakers said that God has privileged us by putting us in this beautiful garden but we have spoiled its beauty. You have reminded us all not to go on with this destruction. We were all fascinated by your artwork, the number of trees you have planted, and the most astonishing of them all are some of the trees which you told us are medicinal. In the past our parents kept this as a secret lest you took over the profession.

There is a saying which goes: 'Prevention is better than cure'. We haven't had the culture of observing these words. We have a lot of herbs to treat many diseases, but nobody has done any research on them. Had we taken this seriously it would have saved a lot of problems, as we wouldn't be depending so much on chemicals, which are expensive and have side effects. Many deaths are caused by our negligence. We don't observe proper hygiene, like having toilets, drinking clean water, cleaning our environment, washing our hands before we eat, etc. We always hear and read about people dying of cholera, diarrhoea, and other related diseases which could be prevented if hygiene would be observed. We should cultivate the culture of 'Prevention is better than cure'.

Not only should we apply this culture to our homes, but also to our environment. The other day we had a seminar. After the seminar we went to visit the town sewage system. It was indeed pathetic. The system has not been attended for years. As a result the dirty water finds its way to the river and people use that water for drinking and other purposes. You can imagine the disaster ahead of us. People in Kibosho have the tendency of making the local brew using stream water, which is infested with all sorts of bacteria. On drinking this brew they get amoebic dysentery, a common disease in the Division. As the previous speaker said, his farm is situated between two rivers on very steep slopes and to prevent soil erosion he has planted trees. Other people do not observe his efforts, as they just cultivate without even establishing terraces. Worse still, last year we did not get the short rains because people burned our beautiful Mt. Kilimanjaro. This is a treasure given to us by God for it is not found anywhere else in Africa.

Some people have tried to light a torch to enlighten us to observe the environment and protect the mountain and its surroundings. But people didn't see that, they went to the extent of building houses right at the river sources. Malihai Clubs are now teaching us not to destroy the environment. We should preserve and salvage what has remained. Though the Chairman, the Counsellor, and the Chief Patron don't like

to be congratulated, I say **BRAVO TO YOU ALL**. Such celebrations are very good as a means of sensitising people about the environment. I once attended a ceremony conducted by the Vice President, at which a pioneer in conservation was announced, the First Environmentalist of the Year. I now say if that person were here he would bestow the same honour to our Chief Patron, Mr. Sebastian Chuwa. Kibosho East will be the teacher of all other Divisions and I will be one of the students.

The third government has realised the importance of conserving the environment. That is why it has formed a special independent institution to deal with the environment only. Our children have insisted on taking stern measures against those who destroy the environment. There are many cases of these defaulters, though they are fined. But what is that compared to the benefit we get from trees, which are enjoyed by the majority?

All those who have settled and cultivated along the river banks should move out immediately. The other day the Minister of Natural Resources and Tourism commended the good job done by people from this Division of extinguishing the fire which was burning on Mt. Kilimanjaro.

He observed how people are grazing their cows in the forest and directed that the rules governing natural resources must be strictly adhered to in order to protect the natural vegetation.

The government in its bid to conserve the environment has raised the fine of defaulters from 20,000 shillings to 500,000 shillings. I once again appeal to everyone to conserve the environment and if you find someone or know of anybody destroying the environment, do not hesitate to bring him to me, either in person or by writing. I assure you I will not disclose your name.

Thank You.

A word of thanks from the Chief Patron:

Guest of Honour,
Invited Guests,
Ladies and Gentlemen,

May I take this opportunity to thank you all for accepting our invitation to come to celebrate World Environment Day in Kibosho East.

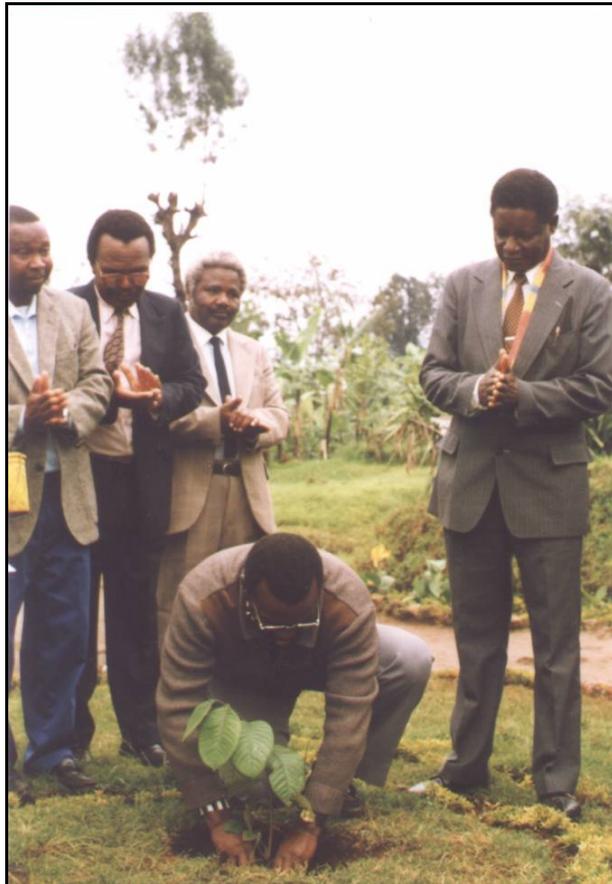
Guest of Honour, we have made tremendous achievements since we started Malihai Clubs in 1992. People in this area have responded very well to our call of conserving nature. Every household has planted orchards, trees for timber, firewood, and shade, even though they know clearly that they are doing so for the coming generations.

Guest of Honour, our friends in Europe who came to know what we are doing have been very impressed and they have assisted us financially and otherwise. There is an organisation known as Rafiki/Friends Foundation, which has donated various

things like garden tools, books, sports gears, etc. They, in collaboration with myself, have renovated Sungu Primary School and built a nursery school. They have agreed to assist us if the villagers will participate. If they do so they will be encouraged and assist us more by renovating all the schools in this Division. These people have come to see our natural resources, they have climbed Mt. Kilimanjaro and seen its beauty, so they are glad when they see the villagers protecting the environment and that is why they are willing to help us.

Guest of Honour, all the dances and songs prove clearly how environmental conservation has brought development in our area.

I wish all our guests a nice and safe journey home but please do not forget to come to visit us again. Thank You.



33

Guest of Honour, the District Commissioner, Mr. Simon Mbesere, planting a tree to commemorate the occasion.



34
Environment Day 1997 at Mweka Primary School.



35
Visitors looking at the local herbs displayed on Environment Day - 1997.



36
Cultural dance by Mweka villagers.



37
In a bid to save Mt. Kilimanjaro, Malihai Clubs Kibosho East have started a very big tree nursery at Kifura, where they plant indigenous tree seedlings and transplant them to the forest border, especially those areas badly affected by forest fire.



38

Mweka Primary School members helped in the planting of 15,000 trees along Mweka route, a popular trail for backpackers on Mt. Kilimanjaro, to mark Environment Day - 1997.



39

Visitors looking at pictures showing how the environment has been destroyed.

CHAPTER THREE

PARENTS' RESPONSIBILITIES IN KIBOSHO VILLAGE



40

International call for 1997 Environment Day is:
MAZINGIRA NI UHAI (ENVIRONMENT IS LIFE).

This chapter will dwell on day-to-day activities of a family in Kibosho and also will mention something on how they unthinkingly destroy the environment.

The community here in Kibosho is composed of:

- 1) Agriculturalists,
- 2) Practitioners of animal husbandry,
- 3) Technicians,
- 4) Businessmen, and
- 5) Civil Servants.

AGRICULTURISTS

There are two types of agricultural production, namely cash crop and food crop agriculture. Coffee (*coffea arabica*) is the main cash crop in Kibosho. The pruning and spraying is done mainly by men twice a year. The picking of coffee is done by the entire family. The crushing, which is a process of separating the beans from the outer cover, is done manually by a special type of machine. The peeled beans are then soaked in water for two days, and on the third day when all the sap is gone,

they are washed and dried and taken to a local cooperative marketing society to be sold. The money so obtained runs the affairs of the family. All the money is given to the head of the family, who has full control over it. The recent coffee disease has drastically affected output, and so proceeds from the sale are meagre.

It is the duty of the men to prune trees and banana (*Musa sp.*) plants. They usually start this job early in the morning before the sun becomes too hot, and in the afternoon they retire to their homes or go for a walk. They like to visit local pubs, where they mingle with others while sipping a local brew known as "Mbege". They sometimes take their wives along or go alone.

The women's duty is to do all household chores, clean the cow shed, and make sure the animals are fed well, as here zero-grazing is in practice. They also look after the farms. Each household has two farms. One is next to the residence, and the other in the lowland, far away from home. The farm away from home is tilled once a year, and only maize and beans are grown. The one next to the homestead is planted in bananas, and during other times of the year, depending on the rain, maize and beans are grown. There are also vegetable gardens. Once a banana plant reaches a certain height, it has to be supported by a special type of wood support which is branched at the top (nshii). This job is done by men. In Kibosho there are twenty five types of bananas, namely: mchare, mkonosi, ndishi, mnanambo, kitarasa, mlali, kisukari, mzuzu, matoke, mbowo, kiukanda, and kimalindi, etc. All these types of bananas grow together with coffee plants and yam plants known as 'nduu', 'shia', etc.

This type of mixed farming thrives well because there is plenty of water and cow dung which serves as natural manure. The bananas are for food and commercial purposes. When ripe they are sold. The ripe bananas are the main ingredients in making the local brew. During the dry season, the ripe bananas sell like hot cakes as they are scarce, and so the prices soar, but during the rainy season they are in abundance and the price goes down to the extent that they are even used as manure.

In order to subsidize their income, the men fell trees for timber and women collect firewood in the forest, thus destroying the environment without knowing. It is the custom of Kibosho women to rest completely for three months after delivery and eat a special diet. The men do all the household chores, assisted by other members of the family.

ANIMAL HUSBANDRY

Animals that are reared are: cows, goats, sheep, and pigs. There are no open grounds for them to feed, so the livestock keepers practise zero-grazing. The milking is done by women and feeding is shared by both. The by-products obtained from these animals are first used by the family and the excess is sold to augment family income. As this is sometimes not enough, the men resort to petty business like carpentry, masonry etc. On the other hand, the women do tailoring or weaving. All this is done to subsidize their income. A few have butcheries, shops, or own pubs. However, this type of venture needs a lot of investment, which not many can afford.

TECHNICIANS, BUSINESSMEN, AND CIVIL SERVANTS

This category of people usually comprises the elite class. They normally work in towns and cities and come to visit their families only during holidays.

CHILDREN'S RESPONSIBILITIES IN KIBOSHO VILLAGE

The children in this Division are taught good manners, language, and culture while still very young. As they grow up, they are taught small household chores and sent on errands, as there are no means of communication in the village. They are sent to school at a tender age, and after finishing primary education they either remain with their parents and get married or are sent for further studies to secondary schools. After finishing secondary school, they either take vocational training, or attend a University, depending on their ability. Sometimes those who are not lucky enough to go for further studies, are either employed as housemaids or run petty businesses.

APPENDICES

THE DISAPPEARANCE OF WILDLIFE, MAINLY ANIMALS, BIRDS, FISH, AND INSECTS IN KIBOSHO EAST

As in many parts of the country, history shows that these places were full of all sorts of wildlife and birds. This is true because the inhabitants are the ones who invented the names given to these animals without getting them from any other source. They could distinguish one animal from another according to its name, behaviour, and noise. The disappearance of these animals started when the Europeans came and cleared big acres of land for coffee, sisal and tea plantations. Then the inhabitants started hunting the animals, forced by the circumstances, and moved towards the north, approaching the Kilimanjaro Forest. Other causes which affected the disappearance of these animals are:

- The burning of the forest in a bid to clear land for settlement
- The pesticides used in spraying the big plantations
- The influx of people who settled on forest borders and river banks

Wildlife chased out of these areas went to the east and west of Mt. Kilimanjaro and settled in Amboseli and Tsavo National Parks in Kenya.

The following lists will show you the names of different animals, trees, and birds which existed, and those still remaining. The list is in the local language, Swahili, with English, and scientific names.

APPENDIX A

LIST OF TREES

S/N	LOCAL NAME	BOTANICAL	ENGLISH OR COMMON NAME	USE
1	IDIDI	<i>ERYTHRINA ABYSSINICA</i>	RED HOT POKER	FENCE/STAMP HOLDER
2	IFUMU/MFUMU	<i>FICUS THONNINGII</i>	STRANGLER FIG	SHADE/WATER RESERVATION
3	IFUMU/MFUMU	<i>FICUS VOGELII</i>	STRANGLER FIG	SHADE/WATER RESERVATION
4	IISI	<i>TREMA ORIENTALIS</i>	PIGEON WOOD	TIMBER AND BUILDING PURPOSES
5	IKANGACHI	<i>PHOENIX RECLINATA</i>	PHOENIX PALM	MAKE BASKETS
6	IKUFI	<i>ACACIA MEARSII</i>	BLACK WATTLE	ROPES FOR BUILDING HOUSES
7	IKUNDUKUNDU	<i>MITRAGYNIA RUBROSTIPULATA</i>	FOREST ALMOND	TIMBER/WATER RESERVATION
8	IKUU	<i>FICUS EXASPERATA</i>	WILD FIG	PRESERVE WATER WELLS
9	IMUMU	<i>KIGELIA AFRICANA</i>	SAUSAGE TREE	FRUIT FOR LIQUOR
10	INGERE	<i>CUSSONIA HOLSTII</i>	CABBAGE TREE	FODDER
11	IRINGA/MRINGARI NGA	<i>CORDIA AFRICANA</i>	LARGE LEAVED CORDIA	TIMBER/ORNAMENT
12	IRINGONU	<i>ALANGIUM CHINENSE</i>	ALANGIUM	BUILDING
13	ITATA	<i>CORDIA OVALIS</i>	SAND PAPER TREE	CLEAN WOOD SURFACE BEFORE PAINTING/ BUILDING/MEDICINE
14	ITOBETOBE	<i>ANNONA SPP.</i>	CUSTARD TREE	FRUIT
15	IWIRIWIRI	<i>MUSSAENDA MICRODONTA</i>	WHITE FLAG BUSH	BUILDING/HANDLES
16	IWURUKA	<i>MYRICA SALICIFOLIA</i>		MEDICINE/FIRE- WOOD
17	KIBAARA MBOMBO	<i>GARCINIA VOLKENSII</i>	LADIES TREE	MINCER
18	KABILIA	<i>GREVILLEA ROBUSTA</i>	SILK OAK TREE	TIMBER/ FIREWOOD
19	KIDAKALE	<i>RHYTIGINIA SCHUMANNII</i>		BUILDING/HANDLES
20	KIDOWO	<i>VANGUERIA ACUTILOBA</i>	WILD MEDLAR	FRUIT
21	KIMARORO	<i>COMBRETUM MOLLE</i>	VELVET BUSHWILLOW	HANDLES/MEDICINE/ FIREWOOD
22	KIWIRO/ KITAWERA	<i>KEETIA VENOSA</i>	MONKEY COFFEE	MINCER/BUILDING
23	MAHAA	<i>MACARANGA KILIMANDASCHARICA</i>	MACARANGA	BUILDING/ FIREWOOD
24	MAWALE	<i>ARUNDINARIA ALPINA</i>	BAMBOO	BUILDING
25	MBILO	<i>APHLOIA THEIFORMIS</i>	ALBINO BERRY	BUILDING/

S/N	LOCAL NAME	BOTANICAL	ENGLISH OR COMMON NAME	USE
				FIREWOOD
26	MCHIO	<i>OLEA WEWITSCHII</i>	OLIVE TREE	TIMBER
27	MDUKA	<i>ALBIZIA SCHIMPERANA</i>	ALBIZIA	TIMBER/MEDICINE/ FIREWOOD
28	MEEFU	<i>CYATHEA MANIANA</i>	TREE FERN	BUILDING
29	MFURUFURU	<i>CROTON MACROSTACHYUS</i>	BROAD LEAVED CROTON	MEDICINE/ FIREWOOD
30	MKONDEKONDE	<i>PRUNUS AFRICANA</i>	BITTER-ALMOND	TIMBER
31	MKUFI	<i>NEWTONIA BUCHANANII</i>	RIVER-NEWTONIA	TIMBER
32	MMANGO	<i>DOVYALIS ABYSSINICA</i>		FRUIT
33	MMASE	<i>ZYZIGIUM GUINEENSE</i>	WATER BERRY	BUILDING/FIREWOOD
34	MRUNDU	<i>CELTIS AFRICANA</i>	STINK-WOOD	TIMBER
35	MSEERI/ MWOWONI	<i>OCOTEA USAMBARENSIS</i>	CAMPHOR	TIMBER/MEDICINE
36	MSESEWE	<i>RAUVOLFIA CAFFRA</i>	WILD MANGO	CARVINGS/FIRE- WOOD/MEDICINE
37	MSONOBARI	<i>JUNIPERUS PROCERA</i>	JUNIPER TREE	TIMBER
38	MTOKOSI	<i>PODOCARPUS MILANJIANUS</i>	YELLOW WOOD	TIMBER
39	MWAANA/ YAANA	<i>AGAURIA SALICIFOLIA</i>		FIREWOOD
40	NDIDI	<i>XYMALOS MONOSPORA</i>	LEMON WOOD	BUILDING
41	MDURUMA/ IBOROORI	<i>POLYCIAS FULVA</i>	PARASOL TREE	BEEHIVE
42	NLIMANG'UMBE	<i>RAPANEA RHODODENDROIDES</i>	CAPE BEECH	BUILDING
43	NRACHA	<i>TABERNAEMONTANA HOLSTII</i>	FOREST WILD MANGO	ORNAMENT
44	NSAADA	<i>OLINIA USAMBARENSIS</i>	OLINIA	BUILDING/MEDICINE
45	NSURUWACHI	<i>ALBIZIA GUMMIFERA</i>	FOREST LONG- PODDED TREE	TIMBER/FIREWOOD
46	NYIFIFINA	<i>COMMIPHORA ZIMERMANNII</i>	HORNBILL TREE OR ASH-LIKE	MEDICINE/FENCE
47	SEERA	<i>ILEX MITIS</i>	AFRICAN-HOLLY	TIMBER/BUILDING

APPENDIX B

LIST OF BIRDS

S/N	LOCAL NAME	ENGLISH	SCIENTIFIC
1.	KIMACHUCHU	HUNTERS SUNBIRD	<i>NECTARINIA HUNTERI</i>
2.	KINAREENGE	RED BILLED FIREFINCH	<i>LOGONOSTICTA SENEGALA</i>
3.	IRUAYI	TROPICAL BOUBOU	<i>LANIARIUS FUNEBRIS</i>
4.	KIKOORO	BLUE SWALLOW	<i>HIRONDO ATROCAERULEA</i>
5.	KING'ONG'ONDA	FINE BANDED WOODPECKER	<i>CAMPETHERA TAENIOLEMA</i>
6.	IFUMBUDU	VERERAUX EAGLE OWL	<i>TYTO ALBA</i>
7.	IKURANG'A	TRUMPETER HORNBILL	<i>BYCAMISTERS SHARPII</i>
8.	IKEKEE	CROWNED HORNBILL	<i>TOCLEUS ALBOTERMINATUS</i>
9.	IRIE	HARTALAU'S TURACCO	<i>TAURACCO HARTLAUBI</i>
10.	ISULULU	SPECKLED MOUSEBIRD	<i>COLIUS STRIATUS</i>
11.	OREKE	GREEN PIGEON	<i>TRERON AUSTRALIS</i>
12.	MBUI	TABOURINE DOVE	<i>TURTUR TYMPHANISTRIA</i>
13.	IBATA MUDA	AFRICAN BLACK DUCK	<i>ANAS SPARSA</i>
14.	OWISHI/OBISHI	LITTLE SPARROW HAWK	<i>ACCIPTER MINULLUS</i>
15.	MBERO	AUGUR BUZZARD	<i>BUTEO RUTOFUCUS</i>
16.	IMAMASILA	LONG CRESTED EAGLE	<i>LOPHAETUS OCCIPITALIS</i>
17.	NGWAALE	HILDEBRANDT'S FRANCOLIN	<i>FRANCOLINUS HILDEBRANDTI</i>
18.	MBUKU	AFEP PIGEON	<i>COLUMBA UNICINETA</i>
19.	MBETA	RED EYED DOVE	<i>STREPTOPELIA SEMILORQUATA</i>
20.	NGUUMA	GROUND HORNBILL	<i>TOCKUS NASUTUS</i>
21.	KIDOMBAMUDA	AFRICAN PIED WAGTAIL	<i>MOTACILLA AGUIMP</i>
22.	IKOLOWIRI	YELLOW VENTED BULBUL/COMMON BULBUL	<i>PYCONOTUS BARABATUS</i>
23.	IKURUKURU	WHITE NECKED RAVEN	<i>CORVUS ALBICOLLIS</i>

S/N	LOCAL NAME	ENGLISH	SCIENTIFIC
24.	NYONYORI	PARADISE FLYCATCHER	<i>TERPSIPHONE VIRIDIS</i>
25.	INANFORI	OLIVE THRUSH	<i>TARDUS OLIVAUES</i>
26.	IFAJIO	NUBIAN NIGHTJAR	<i>CAPRIMULGUS NUBICUS</i>
27.	IKORIISA	WHITE EYED SLATY FLYCATCHER	<i>DIOPTRORNIS FISCHERI</i>
28.	NKANNDOKO	EMERALD CUCKOO	<i>CHRYSOCOCCYX CUPREUS</i>
29.	NCHOKI	BLUE BREASTED BEE-EATER	<i>MEROPS MUCCER</i>
30.	NDOO	MARTIAL EAGLE	<i>POLEMAETUS BELLICASUS</i>
31.	KIMANCHOLA	PIN-TAILED WHYDAH	<i>VIDUA FISCHERI</i>

APPENDIX C

LIST OF ANIMALS

S/N	LOCAL NAME	SWAHILI	ENGLISH	HABITATION	NUMBER
1.	NGANGAYA	KOMBA	BUSH BABY	TREE TOPS	MANY
2.	NGIMA	KIMA	BLUE MONKEY	TREE TOPS	MANY
3.	NDOORO	MBEGA MWEUPE	BLACK AND WHITE COLOBUS	TREE TOPS	FEW
4.	KINANGOYO	TUMBILI	VERVET MONKEY	TREE TOPS	FEW
5.	KISAFURI	KALUNGUYEE	HEDGEHOG	IN HOLES	FEW
6.	IFUWE	NYANI	OLIVE BABOON	TREE TOPS/FARMS	FEW
7.	SASA	NUNGUNUNGU	PORCUPINE	IN HOLES	FEW
8.	SUNGURA	SUNGURA	HARE	IN HOLES	FES
9.	MBELELE	PIMBI	TREE HYRAX	TREES/ CAVES	MANY
10.	BARO/RITI	FUNGO	CIVET	IN HOLES	FEW
11.	KICHECHE	KANU	GENET	TREE CAVES	FEW
12.	MBAA	NGUCHIRO	WHITE TAILED MANGOOSE	IN HOLES	FEW
13.	NGU'RUU	FISI	SPOTTED HYENA	IN HOLES	ARE NOT SEEN
14.	IBAARA	MBWA MWITU	WILD DOG	IN HOLES	NOT SEEN
15.	OLUWARU	CHUI	LEOPARD	ON TREES	NOT SEEN
16.	NGUWE YA NGARA	NGURUWE MWITU	BUSH PIG	IN CAVES AND HOLES	MANY
17.	CHOFU	TEMBO	ELEPHANT	FOREST	NOT SEEN
18.	SARIA	POFU	ELAND	HIGHLANDS/ FORESTS	FEW
19.	NSYA	NDIMBA	RED DUIKER	FOREST	NOT SEEN
20.	SUNU	SUNI	SUNI	FOREST	FEW
21.	MBURU YA SAKA		MOUNTAIN REEDBUCK	FOREST	FEW
22.	NGYAMA	KAKAKUONA	GROUND PANGOLIN	IN HOLES	FEW
23.	SEE	NYEGERE	HONEY BADGER/ RATEL	IN HOLES	MANY
24.	KIBOBORU	NDEZI	GIANT RAT	IN HOLES	MANY
25.	KICHAKORO		SQUIRREL	ON TREES	MANY
26.	MWAANGA	MUHANGA	AADVARK	IN HOLES	FEW

S/N	LOCAL NAME	SWAHILI	ENGLISH	HABITATION	NUMBER
27.	NGURU	KOBE	TORTOISE	JUNGLE	FEW
28.	FUKO	FUKO	MOLE RAT	IN HOLES	MANY

APPENDIX D

LIST OF NATURAL MEDICINES

NO.	LOCAL	BOTANICAL	PART USED	HOW TO USE	DISEASES TREATED	SIDE EFFECTS	USED BY
1.	KIMBATUMBATU	<u><i>HELICHRYSUM ODORATISSIMUM</i></u>	LEAVES	WASH THE LEAVES, CHEW HANDFUL ONCE BEFORE GOING TO BED	COUGHING	NIL	HUMAN BEINGS
2.	IKANGA NGORU	<u><i>BORRERIA PRICEAE</i></u>	LEAVES AND STEM	WASH, GRIND, APPLY THE MIXTURE ON THE WOUND, GIVE TO COWS WITH MASTITIS	WOUNDS AND MASTITIS	NIL	HUMAN BEINGS/COWS, GOATS AND PIGS
3.	INGERESA	<u><i>CONYZA BONARIENSIS</i></u>	ROOTS	WASH, CHEW HANDFUL	STOMACH PROBLEMS AND FOOD POISONING	USE VERY LITTLE AMOUNT	HUMAN BEINGS
4.	IMAMBALE	<u><i>VERNONIA GALAMENSIS</i></u>	LEAVES	WASH AND CHEW	STOMACH PAIN. VERY BITTER, NOT GOOD FOR CHILDREN	TOO MUCH CAUSES NAUSEA AND VOMITING	HUMAN BEINGS
5.	IBERO	<u><i>PSIDIUM GUAJAVA</i></u>	TENDER LEAVES	WASH AND CHEW	STOMACH ACHE AND DIARRHOEA	NIL	HUMAN BEINGS AND ANIMALS
6.	IFUUNA	<u><i>AGERATUM CONYZOIDES</i></u>	ROOTS	WASH, GRIND, DRINK THE LIQUID	STOMACH PAIN	NIL	HUMAN BEINGS AND ANIMALS
7.	OSODA	<u><i>LANTANA CAMARA</i></u>	LEAVES AND FLOWERS	WASH, GRIND, MIX WITH HONEY, DRINK THE LIQUID	FLU AND DRY COUGH	NIL	HUMAN BEINGS

NO.	LOCAL	BOTANICAL	PART USED	HOW TO USE	DISEASES TREATED	SIDE EFFECTS	USED BY
8.	ORUCHU	<u>TODDALIA ASIATICA</u>	LEAVES	WASH THE TENDER LEAVES, GRIND AND DRINK THE LIQUID TWICE A DAY	COUGH	NIL	HUMAN BEINGS/ ANIMALS
9.	KIDOCHA	<u>OPUNTIA VULGARIS</u>	LEAVES	REMOVE ALL THE THORNS FROM THE LEAVES AND CHEW	INDIGESTION AND CONSTIPATION	NIL	ANIMALS
10.	KYAAWE	<u>DRYOPTERI INAEQUALIS</u>	BULBS	WASH, PEEL BULB, GRIND, BOIL, DRINK THE FILTRATE	TAPEWORM, CESTODES, MALARIA, STELEZIA-RHODENSIS – CONTAINS NICLOSAMIDE	NIL	HUMAN BEINGS/ANIMALS
11.	IIFU	<u>CYATHEA STUHLMANNII</u>	YOUNG BULBS	CUT AND WASH, STEEP IN COLD WATER FOR THREE DAYS DRINK THE FILTRATE	HERNIA, AMOEBA, COCCIDIOSIS	NIL	HUMAN BEINGS
12.	VITUNGUU SAUMU	<u>ALLIUM CEPA</u>	BULBS	WASH, USE LIKE VEGETABLE, SALAD OR EAT RAW	BLOOD PRESSURE	NIL	HUMAN BEINGS
13.	KITALEMBO/NCHUNGA	<u>LAUNAEA CORNUTA</u>	LEAVES	WASH, USE LIKE VEGETABLE	STOMACH ULCERS, MEASLES	NIL	HUMAN BEINGS

NO.	LOCAL	BOTANICAL	PART USED	HOW TO USE	DISEASES TREATED	SIDE EFFECTS	USED BY
14.	IKWANDRI	<u>CLERODENDRUM JOHNSTONII</u>	LEAVES	WASH, CHEW.	FOOD POISONING, STOPS DIARRHOEA	NIL	HUMAN BEINGS/ANIMALS
15.	IRAACHA	<u>TABERNAE MONTANA JOHNSTONII</u>	SAP	PUT THE SAP ON A RAW WOUND	INJURY/ WOUND	NIL	HUMAN BEINGS/ANIMALS
16.	MSESEWE	<u>RAUVOLFIA CAFFIRA</u>	ROOTS/TREE BARK	WASH, BOIL, DRINK. OR ROAST AND CHEW	HOOKWORM	USE MODERATELY	HUMAN BEINGS/ANIMALS
17.	IFURUFURU	<u>CROTON MACRO-STACHYUS</u>	TREE BARK/ LEAVES	WASH, MIX WITH NO.18, BOIL, DRINK; BURN DRY LEAVES AND SNIFF THE SMOKE	FEVER, MEASLES, ITCHING, ALLERGY, DIARRHOEA, CONSTIPATION	NIL	HUMAN BEINGS/ANIMALS
18.	IWINU	<u>SENNA DIDYMOBO-TRIYA</u>	DRY LEAVES	WASH, BOIL AND DRINK OR SNIFF THE SMOKE OF DRY LEAVES	ASTHMA, CONSTIPATION	MAY CAUSE DIARRHOEA	HUMAN BEINGS
19.	MDUKA	<u>ALBIZIA SCHIMPERIANA</u>	COLLECT THE SAP FROM STEM	WASH AFFECTED PART, SMEAR SAP ON THE SKIN	SKIN DISEASE	NIL	HUMAN BEINGS/ANIMALS
20.	ISALE LYA CHOFU	<u>ALOE VOLKENSII</u>	SAP	PUT ON THE AFFECTED AREA	EYE DISEASE, BURNS, WOUNDS,	NIL	HUMAN BEINGS/ANIMALS
21.	IRUNG'UNU	<u>ALANGIUM CHINENSE</u>	BARKS	WASH, BOIL AND GIVE THE DECOCTION TO ANIMAL	INFERTILITY AND NOT COMING INTO HEAT	NIL	ANIMALS

NO.	LOCAL	BOTANICAL	PART USED	HOW TO USE	DISEASES TREATED	SIDE EFFECTS	USED BY
22.	IWURUKA	<u>MYRICA SALICIFOLIA</u>	BARKS/ROOTS	GRIND AND MIX WITH BLACK TEA	STOMACH ULCERS, LOSS OF APETITE	NIL	HUMAN BEINGS
23.	MWOWONI	<u>OCOTEA USAMBARENSIS</u>	BARKS	WASH, GRIND, MIX WITH WATER AND DRINK	WORMS, LOSS OF APPETITE; REDUCES SWELLING, ASCIATIS	NIL	HUMAN BEINGS AND ANIMALS
24.	NGESI	<u>EMBELIA SCHIMPERI</u>	SEEDS	WASH, BOIL, CHEW HANDFUL	SEVERE COLD, TAPE WORM	DIARRHOEA	HUMAN BEINGS/ANIMALS
25.	IFIFINA	<u>COMMIPHORA ZIMMERMANNII</u>	ROOTS/BARK	WASH, BOIL, APPLY DECOCTION OR SAP ON AFFECTED TOOTH	TOOTH ACHE	NIL	HUMAN BEINGS
26.	IKASINGO	<u>SYNADENIUM VOLKENSII</u>	SAP	PUT SAP ON THE AFFECTED AREA SEHEMU	ALL SKIN DISEASES. (NDUDU)	DO NOT PUT ON RAW WOUND	HUMAN BEINGS
27.	LALAANGWE NGITU(PARASITE)	<u>LORANTHUS SPP.</u>	LEAVES	GRIND OR BOIL	LOSS OF HEAT	NIL	ANIMALS
28.	MAKOKOO	<u>KALANCHOE DENSIFLORA</u>	LEAVES/STEM	BOIL AND SPONGE	PRESS ON THE SWOLLEN AREA	NIL	HUMAN BEINGS
29.	SHISOIYA	<u>IPOMOEA/BATATUS</u>	STEM AND LEAVES	WASH, GRIND, MIX THE EXTRACT LIQUID WITH WATER AND DRINK.	CONSTIPATION, TO STIMULATE OXYTOCIN HORMONES	NIL	HUMAN BEINGS/ANIMALS

NO.	LOCAL	BOTANICAL	PART USED	HOW TO USE	DISEASES TREATED	SIDE EFFECTS	USED BY
30.	INYIIRI	<u>BASELLA ALBA</u>	LEAVES/ STEMS	WASH, GRIND, MIX WITH A PINCH OF SODIUM BICARBONATE	TO STIMULATE HEAT	NIL	ANIMALS
31.	SHODOYE SHYA NDIIU		STEM	WASH, GRIND AND SIEVE	NGUU ANAPLASMOSIS CONSTIPATION	NIL	ANIMALS
32.	MWAARIE	<u>BRIDELIA MICRANTHA</u>	TREE BARK	WASH, BOIL, GRIND AND MIX THE LIQUID WITH BEER	COCCIDIOSIS, DIARRHOEA, AMOEBIOSIS, VENERAL DISEASES	URINATE FREQUENTLY	HUMAN BEINGS
33.	KIMANDUKA	<u>PHYLLNTHUS LEUCANTHUS</u>	LEAVES AND STEM	WASH, GRIND AND CHEW TWICE A DAY	TUMOUR IN THE UTERUS; THE LEAF POWDER IS GOOD FOR WOUNDS	NIL	HUMAN BEINGS
34.	INABORU		BULBS	WASH, DRY AND GRIND	USE THE POWDER TO TREAT FOOD POISONING AND UPSET STOMACH	VERY SOUR MONOGAS- TRICS	HUMAN BEINGS
35.	KIBANGASA		LEAVES	BOIL AND EAT	GAS IN THE STOMACH, AMOEBA,	NIL	HUMAN BEINGS
36.	MBALASHO	<u>CAJANUS CAJAN</u>	LEAVES	WASH, BOIL AND DRINK HALF A CUP THRICE A DAY	MEASLES, FEVER. POUR THE LIQUID ON THE PATIENT'S BODY AND WASH HIM	NIL	HUMAN BEINGS
37.	NDUO	<u>SOLANUM INCANUM</u>	ROOTS	WASH, CHEW, OR GRIND AND DRINK THE LIQUID	TO MINIMISE POISON IN FOOD. WOUNDS	NIL	HUMAN BEINGS

NO.	LOCAL	BOTANICAL	PART USED	HOW TO USE	DISEASES TREATED	SIDE EFFECTS	USED BY
38.	CHIMBILILI	<u>SELLAGINELA KRAUSIANA</u>	LEAVES	RUB WELL ON THE BLISTERS	FUNGUS (CELULITIS)	NIL	HUMAN BEINGS
39.	IMBATUMBATU	<u>TITHONIA VERSIFOLIA</u>	LEAVES	GRIND , SIEVE AND GIVE THE LIQUID TO THE ANIMAL	RETAINED PLACENTA	NIL	ANIMALS
40.	MBATA (IUNGU)	<u>PEPONIUM SPP.</u>	LEAVES	GRIND, SIEVE AND GIVE THE LIQUID TO THE ANIMAL	RETAINED PLACENTA	NIL	ANIMALS
41.	ISALE NA IRIDO	<u>DRACAENA SPP. AND MAESA LANCEOLATA</u>	ROOTS	WASH, BOIL AND MIX WITH SOUP OR BLOOD	HELMITHIASIS	ADMINISTER ONLY A SMALL AMOUNT	ANIMALS ESPECIALLY DOGS
42.	KIYA KYA IFUE	<u>HAEMANTHUS MULTIFLORUS</u>	BULBS	APPLY THE LATEX IN THE CERVIX	INFERTILITY. THE COW GETS HEAT AFTER 72 HOURS. POSTAGLANUDS	HORMONAL; CAN CAUSE ABORTION IN PREGNANT ANIMALS	ANIMALS
43.	KYOOLOKA NA RUA	<u>CASSYTHA FILIFORMIS</u>	STEM	WASH, GRIND TOGETHER WITH SODIUM BICARBONATE	NOT GETTING HEAT-SILENT	NIL	ANIMALS
44.	IBAABAI	<u>CARICA PAPAYA AND MUSA SPP.</u>	PLANTAIN ROOTS AND PAPAYA ROOTS	WASH, AND BOIL TOGETHER. DRINK ONCE EARLY IN THE MORNING	GONORRHOEA, NEPHRITIS, TUMOR OF THE KIDNEYS. MAKES THE MEAT TENDER WHEN BOILING.	DO NOT USE DURING THE NIGHT AS IT CAUSES FREQUENT URINATION	HUMAN BEINGS AND MONOGASTRICS

NO.	LOCAL	BOTANICAL	PART USED	HOW TO USE	DISEASES TREATED	SIDE EFFECTS	USED BY
45.	ONAFU	<u>SOLANUM NIGRUM</u>	LEAVES	WASH AND PREPARE AS VEGETABLE	VITAMIN 'K' FOR PREGNANT MOTHER, STOMACH ULCERS	NIL	HUMAN BEINGS
46.	KIFUCHA MUDO	<u>DESMODIUM REPANDUM</u>	LEAVES	WASH, CHEW TWICE A DAY	DIARRHOEA	NIL	HUMAN BEINGS
47.	INUKA	<u>OCIMUM SUAVE</u>	LEAVES	WASH AND CHEW	HEPATITIS, TAKE AWAY GAS IN THE STOMACH, FLY REPELLANT	NIL	HUMAN BEINGS AND MONOGASTRICS
48.	NY'YAMBI	<u>OXALIS CORNICULATA</u>	LEAVES	WASH AND CHEW FREQUENTLY	FEVER, BLOOD PRESSURE	NIL	HUMAN BEINGS
49.	MANLOODA	<u>RUMEX USAMBARENSIS</u>	LEAVES	WASH, CHEW FREQUENTLY	FEVER, BLOOD PRESSURE	NIL	HUMAN BEINGS
50.	NDUU	<u>DIOSCOREA BULBIFERA</u>	BULB	WASH, BOIL, PEEL AND EAT AS FOOD	SKIN DISEASES, BLOOD PRESSURE	NIL	HUMAN BEINGS
51.	IDIDI	<u>ERYTHRINA ABYSSINICA</u>	BARK	WASH, BOIL AND DRINK THE LIQUID	DO NOT EXCEED 8 DAYS	NIL	HUMAN BEINGS
52.	ISHENGE	<u>RICINUS COMMUNIS</u>	SEEDS	WASH, BOIL, SIEVE AND DRINK CUP FULL	LAXATIVE	NIL	HUMAN BEINGS/ANIMALS
53.	NSAADA	<u>OLINIA USAMBARENSIS</u>	TENDER LEAVES	WASH, BOIL, SIEVE AND DRINK. MIX WITH INCENSE, MFURUFURU, MAKINGI MFUKIZIE MGONJWA	HIGH FEVER, MALARIA, HEADACHE, CHEST PAIN	NIL, BUT VERY SOUR	HUMAN BEINGS/ANIMALS

NO.	LOCAL	BOTANICAL	PART USED	HOW TO USE	DISEASES TREATED	SIDE EFFECTS	USED BY
54.	ISHOKOSHOKO	<u>TRIUMFETA FLAVESCENS</u>	LEAVES	WASH AND CHEW. FOR ANIMALS GRIND AND GIVE THEM THE LIQUID	COUGHS, LOSS OF APETITE. UNEASINESS AND DULLNESS	NIL	HUMAN BEINGS/DOGS
55	IKUU	<u>FICUS CAPENSIS</u>	LATEX/ROOTS	WASH, BOIL AND DRINK CUP FULL	TOOTH ACHE AND STOMACH PAIN	NIL	HUMAN BEINGS/ANIMALS
56	ITUNDA LYA NGARA	<u>PASSIFLORA EDULIS</u>	ROOTS	WASH, GRIND AND PUT A DROP IN THE AFFECTED EAR SIX-HOURLY	EAR ACHE	NIL	HUMAN BEINGS/ ANIMALS
57	TANGURINGURI	<u>PEDALIUM</u>	ROOTS	WASH, BOIL, SIEVE AND DRINK THE LIQUID	GONORRHOEA	NOT TO BE TAKEN BY PREGNANT MOTHERS	HUMAN BEINGS/ANIMALS
58	KWERIWERI	<u>RUMEX</u>	ROOTS	WASH, GRIND AND DRINK	STOMACH ULCERS, BOIL	NIL	HUMAN BEINGS/ANIMALS
59	KITARICHE	<u>RUBIA CORDIFOLIA</u>	ROOTS	WASH, GRIND AND DRINK	STOMACH PAIN, FOOT AND MOUTH DISEASE	NIL	HUMAN BEINGS/ANIMLAS
60	MLAMBA	<u>ADANSONIA DIGITATA</u>	ROOTS AND BARK	WASH, BOIL, GRIND, AND DRINK	HIGH FEVER, GOOD FOR CONVALESCENCE AND FATIGUE. IN ANIMALS IT IS USED TO WASH A NEWLY BORN WEAK CALF.	NIL	HUMAN BEINGS/ANIMALS

NO.	LOCAL	BOTANICAL	PART USED	HOW TO USE	DISEASES TREATED	SIDE EFFECTS	USED BY
61.	BAMIA	<u>HYBISCUS ESCYLEANTUS</u>	FRUIT	WASH, PREPARE AS VEGETABLE. GRIND AND GIVE TO COWS.	CONSTIPATION, ESPECIALLY WITH ANAPLASMOSIS	NIL	HUMAN BEINGS/ANIMALS
62.	BANGI	<u>CANNABIS SATIVA</u>	TENDER LEAVES	WASH, GRIND AND PUT IN THE AFFECTED EAR	EAR ACHE (OTITIS MEDIA)	POISON IF IT IS USED LIKE CIGARETTE	HUMAN BEINGS
63.	BILIBILI	<u>CAPASICUM SPP.</u>	FRUIT	WASH, CHEW OR PUT IN THE FOOD	INCREASE APETITE, GUMBORO IN CHICKEN OR INFECTIOUS BURSITIS DISEASE (IBD)	DO NOT USE IF YOU HAVE STOMACH ULCERS AND DO NOT RUB IN THE EYES.	HUMAN BEINGS/CHICKEN
64.	BANGI	<u>TAGETES MINUTA</u>	LEAVES	WASH, GRIND MIX WITH LUKEWARM WATER, AND BATHE THE SICK.	RASHES AND ITCHING	NIL	HUMAN BEINGS/ANIMLAS
65.	MOOKO	<u>MANIHOT ESCULENTA</u>	TENDER LEAVES	WASH,USE AS VEGETABLE	ANEMIA/IN PREGNANT MOTHERS	NIL	HUMAN BEINGS
66.	KIMARORO	<u>COMBRETUM MOLLE</u>	ROOTS	WASH, BOIL AND DRINK	HOOKWORM, DYSENTRY, SNAKE BITE, SMALL POX, OEDEMA	NIL, BUT NOT TO BE USED BY PREGNANT MOTHER	HUMAN BEINGS/ANIMALS
67.	NTUNDURU	<u>VERNONIA SPP.</u>	LEAVES	WASH,GRIND, MIX WITH A LITTLE WATER AND DRINK HALF CUP FULL	CHEST PAIN, CONSTIPATION	NIL	COWS

NO.	LOCAL	BOTANICAL	PART USED	HOW TO USE	DISEASES TREATED	SIDE EFFECTS	USED BY
68.	ITAREEMBE	<u><i>DODONEA VISCOSA</i></u>	LEAVES	WASH, GRIND , SIEVE AND TAKE	GOOD FOR INFANTS WITH STOMACH UPSET	NIL	HUMAN BEINGS
69.	KIMANGANU	<u><i>EUPHORBIA INAQUILATERA</i></u>	SEEDS	BURN AND DIRECT THE SMOKE ON THE TOOTHACHE	TOOTH ACHE ESPECIALLY ONE WHICH HAS A HOLE	NIL, AND MAKE SURE YOU DON'T EAT THE SEEDS	HUMAN BEINGS
70.	IKENGERE	<u><i>COMMELINA BENGHALENSIS</i></u>	LEAVES/BUDS	WASH, GRIND, AND ADMINISTER	CONSTIPATION	NIL	ANIMALS
71.	NDIU	<u><i>CYPERUS ROTUNDUS</i></u>	FLOWERS	WASH, RUB AGAINST GUMS	TO SPEED UP TEETHING PROCESS	NIL	HUMAN BEINGS
72.	MUWA O SAMU	<u><i>SACCHANUM OFFICIANARUM</i></u>	BULB	WASH, PEEL AND EAT	YELLOW FEVER AND DIABETES	NIL	HUMAN BEINGS
73.	ISALE	<u><i>DRACAENA AFROMONTANA</i></u>	ROOTS	WASH AND BOIL	HOOKWORM AND CAUSES DIARRHOEA	NIL	HUMAN BEINGS
			LEAVES	WASH, CHEW AND GURGLE JUST A HANDFUL	TAKES AWAY BAD ODOUR IN THE MOUTH AND GIVES FRESH BREATH	NIL	HUMAN BEINGS
74.	NG'INDA YA NCHAARE	<u><i>MUSSA SPP.</i></u>	ROOTS	WASH, BOIL, DRINK ONE CUPFUL TWICE A DAY	OEDEMA	NIL BUT DO NOT USE DURING THE NIGHT AS IT CAUSES FREQUENT URINATING	HUMAN BEINGS
75.	KYA KYEEKOO	<u><i>DISCOREA TRIFIDA</i></u>	LEAVES	WASH, GRIND AND RUB ON THE FOREHEAD	HEADACHE	NIL	HUMAN BEINGS

NO.	LOCAL	BOTANICAL	PART USED	HOW TO USE	DISEASES TREATED	SIDE EFFECTS	USED BY
76.	MFUMU	<u><i>FICUS THORNINGII</i></u>	YOUNG ROOTS	WASH, GRIND, MIX WITH CANNABIS SATIVA AND CHEW A HANDFUL BEFORE GOING TO BED FOR THREE DAYS	BLOOD PRESSURE	NIL	HUMAN BEINGS
77.	ITONGOWIRO	<u><i>CUCUMIS SPP.</i></u>	LEAVES	WASH, CHEW THE LEAVES	GAS IN THE STOMACH	NIL	HUMAN BEINGS
78.	ITONGOWIRO LYA KASA	<u><i>CUCUMIS MINIMA</i></u>	DRY FRUIT	WASH, BOIL AND DRINK 250CC ONCE A DAY	CHESTBURN AND ACID	NIL BUT CAN CAUSE VOMITING IF USED IN EXCESS	HUMAN BEINGS
79.	ONANAA	<u><i>INDIGOFERA ARRECTA</i></u>	ROOTS	WASH, AND CHEW A HANDFUL	STOMACH ACHE; BAIT IN TRAPPING MOLE, RAT	NIL	HUMAN BEINGS/ANIMALS
80.	KISASAIYA	<u><i>SANICULA ALATA</i></u>	ROOTS	WASH, CHEW ON THE TOOTHACE GRIND, SNIFF	TO EASE TOOTH ACHE HEADACHE	NIL	HUMAN BEINGS
81.	IBANGASA	<i>VIGNA VEXILLATA</i>	LEAVES	WASH, PREPARE AS VEGETABLE	AMOEBIA	NIL	HUMAN BEINGS
82.	YEEMBE	<u><i>MANGIFERA INDICA</i></u>	BARK	WASH, BOIL, GRIND, MIX WITH HONEY AND DRINK	LOW BLOOD PRESSURE	NIL	HUMAN BEINGS

NO.	LOCAL	BOTANICAL	PART USED	HOW TO USE	DISEASES TREATED	SIDE EFFECTS	USED BY
83.	MBALASHO	<u>CAJANUS CAJAN</u>	LEAVES	WASH, BOIL & BATHE THE PATIENT WITH DECOCTION	MEASLES, HIGH FEVER	NIL	HUMAN BEINGS
84.	KYUMBURA	<u>CLUTIA ABYSSINICA</u>	DRY YELLOW LEAVES	WASH, CHEW AND SWALLOW	COUGH	NIL	HUMAN BEINGS
85.	MRINDWA	<u>BERSAMA ABYSSINICA</u>	LEAVES ROOTS	WASH, CHEW, GRIND AND DRINK THE LIQUID OR SNIFF LIKE SNUFF MASH, SIEVE. DRINK THRICE A DAY	FLU, WORMS IN INFANTS. EPILEPSY, HAEMORRHOIDES, MEDICINE TO WASH WOUNDS	NIL BUT CAN CAUSE DIARRHOEA IF USED IN EXCESS	HUMAN BEINGS/ANIMALS
86.	MSHIMBAMBA KIRUMAACHI	<u>RHAMNUS PRINOIDES</u>	ROOTS	WASH, GRIND, BOIL WITH MEAT OR BONES AND DRINK THE SOUP	GONORRHOEA RHEUMATISM	NIL BUT CAN CAUSE FREQUENT URINATING IF USED IN EXCESS	HUMAN BEINGS

NO.	LOCAL	BOTANICAL	PART USED	HOW TO USE	DISEASES TREATED	SIDE EFFECTS	USED BY
87.	MWAANGA	<u>HAGENIA</u> <u>ABYSSINICA</u>	ROOTS FLOWERS BARK	WASH, BOIL WITH MEAT AND DRINK THE SOUP FLOWERS OF FEMALE PLANTS - DRIED AND EATEN GRIND, MIX WITH COLD WATER AND DRINK	MALARIA TAPE WORM STOMACHACHE WITH DIARRHOEA	IT SHOULD NOT BE USED BY A PREGNANT MOTHER AS IT CAUSES ABORTION NIL NIL	HUMAN BEINGS/ANIMALS
88.	IDUDUU	<u>VERNONIA</u> <u>AURICULIFERA</u>	TENDER LEAVES LEAVES	WASH, GRIND, MIX WITH BUTTER GRIND DRY LEAVES AND PUT ON THE WOUND	AMOEBIA NOSE BLEEDING	NIL NIL	HUMAN BEINGS
90.	IMANLILIMI	<u>RUMEX</u> <u>BEQUAERTII</u>	BULB	WASH, CHEW AND SWALLOW	STOMACH ULCERS AND TOOTH ACHE	NIL BUT CAN CAUSE DIARRHOEA IF USED IN EXCESS	HUMAN BEINGS/ ANIMALS
91.	IWURUKA	<u>MYRICA</u> <u>SALICIFOLIA</u>	BARK	WASH, DRY OUTSIDE OR USING CHARCOAL. GRIND, SIEVE, AND PUT ONE TEASPOONFUL IN ONE GLASS OF HOT WATER OR TEA.	BOIL, AMOEBA, SNIFF THE DRY BARK TO TREAT FLU OR HEADACHE	NIL	HUMAN BEINGS

NO.	LOCAL	BOTANICAL	PART USED	HOW TO USE	DISEASES TREATED	SIDE EFFECTS	USED BY
92.	YAAMBADA	<u>DRYMARIA</u> <u>CORDATA</u>	LEAVES	WASH, GRIND AND SNIFF	HEADACHE	NIL	HUMAN BEINGS
93.	KINYJOMBA	<u>JUSTICIA</u> <u>METAMENSIS</u>	LEAVES	PREPARE AS VEGETABLE. IT HAS VITAMIN 'K'	ANAEMIA IN PREGNANT MOTHERS	NIL	HUMAN BEINGS/ANIMALS
94.	KAAWA	<u>COFFEA ARABICA</u>	FRUIT	WASH, BOIL WITH MEAT	MEAT TENDERISER TAKES AWAY GAS IN THE STOMACH	NIL	HUMAN BEINGS
95.	ILIMAO	<u>CITRUS LIMON</u>	FRUIT	WASH, SQUEEZE, SIEVE, MIX THE JUICE WITH BLACK TEA AND DRINK.	FLU, INDIGESTION	NIL	HUMAN BEINGS
			LEAVES	WASH, BOIL, ADD A PINCH OF SODIUM BICARBONATE	COUGH, PYREXIA	NIL	HUMAN BEINGS
96.	OBANI	<u>EUCALYPTUS</u> <u>SPP.</u>	LEAVES	WASH, BOIL AND INCENSE	FEVER AND FATIGUE	NIL	HUMAN BEINGS
97.	IMUMU	<u>KIGELIA</u> <u>AFRICANA</u>	FRUIT	WASH, DRY AND MIX WITH LIQUOR TO MAKE IT STRONG	NONE APART FROM MAKING LIQUOR STRONG	NIL	HUMAN BEINGS
			BARK	WASH AND BOIL	MALNUTRITION	NIL	HUMAN BEINGS