COMMUNITY PARTICIPATION IN MANAGEMENT OF RAMOGI SACRED HILL

BY

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A RESEARCH PROJECT SUBMITTED TO THE INSTITUTE OF AFRICAN STUDIES, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE POST GRADUATE DIPLOMA IN THE CARE AND MANAGEMENT OF HERITAGE AND MUSEUM COLLECTIONS OF THE UNIVERSITY OF NAIROBI.

AUGUST 2005

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DECLARATION

This project report is my original work and has not been submitted for any award in any university.

SIGNATURE: ..... DATE: 2/9/2005.

Mr. Jacob Muhando

This project report has been submitted for examination with my approval as the University assigned supervisor.

SIGNATURE: ..... DATE: 4/9/05

DR. Dennis M. London

DEDICATION

To my beloved wife **Dorothy Ongaya**, my children **Mercy Andeso** and **Felix Nyangila** and my mother **Mildred Nyangila** for their moral support, love and encouragement during the research period.

ACKNOWLEDGEMENTS

I owe my appreciation to several people and institutions that contributed in various ways to the completion of this work. Dr. Dennis M. London has guided and supported me through out this study. Apart from his professional guidance, we related in many other endeavours. I thank him for his invaluable assistance, concern and encouragement. Mr. Mwadime Wazwa cannot be forgotten for reading through the first draft of this study and made useful suggestions and comments.

Others who in one-way or the other were able to contribute to the completion of this work but I' am not able to list their names are the local people of Ramogi location. Despite the inconveniences and constraints, they welcomed me into the area and their homesteads.

Many thanks go to the officials of Ramogi Hill Eco- cultural and Education Center for their informative and lively discussions. Their patience and kindness in offering time and effort to respond to my questions is greatly valued and I sincerely thank them all. Special thanks goes to the now retired Bondo District Forest Mr. John Ojwang' who introduced me to the local people which greatly facilitated my work.

Last but not least, I would like to thank my fellow students for their observations and comments on my research findings. I thank all participating donors through the Programme for Museum Development in Africa (PMDA) for providing funds that enabled me undertake this study. I wish also to thank my employer, the National Museums of Kenya for supporting and granting me permission to undertake the study. Finally, I thank my family members for their support, patience and encouragement during my research period.

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LIST OF ACRONYMS

AZTREC	Association of Zimbabwe Traditional Environmental Conservationists
CBO	Community Based Organisation.
CECIK	Centre for Cosmovision and Indigenous Knowledge
CRM	Cultural Resource Management.
FD	Forest Department.
FGD	Focus Group Discussion.
GK	Government of Kenya
IK	Indigenous knowledge
IUCN	International Union for the Conservation of Nature.
KARI	Kenya Agricultural Research Institute.
KEFRI	Kenya Forest Research Institute.
KWS	Kenya Wildlife Service.
NGO	Non- Governmental Organization.
NMK	National Museums of Kenya.
PMDA	Programme for Museum Development in Africa
RHEEC	Ramogi Hill Eco –Cultural and Education Centre.

ABSTRACT

This project report presents the findings of a study on community participation in the management of Ramogi sacred hill in Usigu Division of Bondo District in Western Kenya. The main objective of the study was to assess community participation and analyze their role in the management of cultural heritage. The study also aimed at identifying the traditional methods, which are utilized in the management of Ramogi sacred hill and describe community perceptions towards the current management responsibility of the site by the National Museums of Kenya (NMK), and how it has influenced the conservation of the site.

The study was carried out among the residents of Ramogi location, dominantly inhabited by the Luo. Data were collected using the survey methods, key informants, focus group discussions, observation method, and the use of secondary data. Qualitative methods of data analysis were used. Descriptive statistical methods were also used to analyze various variables on the management and conservation of Ramogi sacred hill.

The findings from the study show that the local community feels that they have been alienated from the mainstream activities concerning the management of Ramogi sacred hill. They feel they are not benefiting from the resources as it used to be before the management of the hill was taken over by the National Museums of Kenya (NMK). Given the wealth of relevant indigenous knowledge held by the local members of the community, the study recommends that the local community be involved in the management of the site and its natural resources.

CHAPTER ONE

BACKGROUND TO THE STUDY

1.1. Introduction

This study is about community participation in the management of Ramogi sacred hill. In the context of this study community participation is a process whereby members of a community participate directly in decision making on development projects that may affect their community. This process is an essential tool through which one can achieve community empowerment and ownership. The participation of local community members and other stakeholders in managing and protecting heritage can help to improve environmental sustainability and make rules governing such areas more enforceable. Introducing participatory management depends on institutional commitment. This requires time and other resources to develop: consensus among stakeholders; establish new institutional arrangements; ensure appropriate rules and incentives for local involvement, and build organizational capacity at the local level. It can be argued that successful management and conservation of sites and monuments can only be achieved by a truly collaborative effort between local community groups, agencies, scientists and policy makers.

Globally, communities recognized the value of protecting their cultural and natural heritage for their intrinsic worth so that they can better contribute to the sustainable use of their resource they protect. Recently, due to their biological, ecological, historical and cultural significance, a number of organizations and individuals have initiated activities aimed at preserving heritage and associated memories. Communities still using these sites have also been in the forefront in managing them. In some cases, individuals have taken it upon

themselves to protect the sites and such individuals are often the elderly who still have strong cultural attachments to the site.

The community participation is taken in the context of 'neighbours as partners'. Even though much has been said about the community participation in the management of heritage, little has been documented and therefore there is need to bridge this gap of information. The impetus for sustainable natural resource management should be given more momentum with the involvement of the local communities. It is becoming increasingly apparent that sound and sustainable environmental management will only be realized through involvement of the local communities in both the identification of the problems as well as the sustainable solution to the problems. It is in this perspective that we must welcome the participation of the local communities in the planning of what is ultimately everyone's environment (Shilabukha, 1998: 2).

1.2 Research problem

The management of the environment especially in regard to fragile ecosystems has special status in the current global effort to conserve the environment. Conservation may be defined as the management of the human utilization of the biosphere so that it may yield the greatest sustainable benefit to the present generation (Awori *et al.* 1996). At the same time, this process must be sustainable such that it does not jeopardize the needs of future generations. The present generation should view its role in resource management as that of custodians. Therefore, activities that are geared towards development must always take into consideration the future needs (Shilabukha, 1998). In Kenya, the management of cultural and natural heritage is the responsibility of government officers, who perceive resource depletion and the resultant environmental degradation as a result of the adverse practices of the local community. Thus the problem with this approach is that it creates mistrust between the

government officers and members of the local community living in the proximity of the resources.

Ramogi sacred hill has undergone destruction and degradation despite being a significant cultural landscape. This has been caused by encroachment of farms and settlements as a result of increasing human population and demand for forest resources like timber, building poles or trees for woodcarvings, woodfuel, charcoal and medicine. The result has been the degradation of the site and associated historical landmarks within Ramogi sacred hill.

The focus of this study, therefore, was to explore the role played by the communities in the management of heritage in Kenya with special reference to Ramogi sacred hill. There was need to investigate the conservation status and identify the causes of degradation of the site and to propose appropriate intervention strategies. It therefore aimed to find out what kind of resources are found within the site and look at the social rules which govern the utilization of the resources such as plants and animals found within Ramogi sacred hill. It was also important to have an inventory of the some important resources found within the site and how valued they are to the local community.

In specific terms, the study was designed to find answers to the following questions:

1. What is the conservation status of Ramogi hill sacred forest?
2. What is the perception of the local community towards management of Ramogi hill sacred forest?
3. What is the level of local community participation in the management of Ramogi hill sacred forest?
4. How can the traditional methods of conservation and management be integrated with modern system?
5. How will the community benefit as a result of conservation of the site?

1. 3. Objectives of the study

The general objective of the study was to explore the level of community participation in the management of Ramogi sacred hill. The specific objectives were

1. To investigate the conservation status of Ramogi hill sacred forest.
2. To investigate the perception of the local community towards management of Ramogi hill sacred forest?
3. To find out whether the local community is involved in the management of Ramogi hill sacred forest.
4. To find out how the traditional methods of conservation and management can be integrated with modern system.
5. To find out how the local community will benefit as a result of conservation of the site.

1.4. Rationale of the study

The National Museums of Kenya is charged with the responsibility of preserving national heritage and has made efforts to protect it from deterioration. Despite all this efforts, heritage deterioration has continued unabated because of the inability to study social and cultural aspects influencing its utilizations. Therefore, this explains why activities aimed at mitigating against heritage deterioration do not achieve their stated objectives. Most conservation activities have only focused on flora and fauna and ignored people who live in proximity and have been reduced to mere consumers of information they already have. An example is the eco – tourism activities in Kenya, in which most of the tour companies come up with information packages about the wealth of the people's heritage and how to protect it without actually involving them in its initial formulation, as a result misrepresented. In addition, the

tour companies operations in terms of income are not revealed to the local people and little is ploughed back to the community who are indeed the custodians of heritage.

In general, heritage management efforts should incorporate people's needs, aspirations, their knowledge (indigenous knowledge), expertise, perception and traditional management system. Any intervention that disregards local peoples perception is bound to fail, hence this study focused on local peoples perceptions on the management of Ramogi sacred hill. The study also investigated how traditional methods of conservation and management can be integrated with the modern system.

The methodology of study incorporated participatory approaches, for example focus group discussions and transect-walks, which were relevant in highlighting the community's thoughts, belief systems and perceptions, which may be incorporated into the intervention strategy. The transect walks method became useful as it facilitated the identification of causes of deterioration of the site.

The findings of this study is significant in identifying sustainable solutions to the problem of management of other similar sites in Kenya by the NMK and other heritage institutions in Africa. Similarly, the study took into consideration the significance of both scientific and indigenous management systems, which contribute to the existing knowledge and solution to the problem of heritage deterioration. It is envisaged that the findings and recommendations will complement the NMK's efforts towards eradicating management problems and conflicts of interest.

1. 5. Scope and Limitations

The study was limited to investigating the level of community participation in the management of Ramogi sacred hill. It was also interested in seeking to understand the conservation status of the site, and the perception of the local community on the management of Ramogi sacred hill by the NMK. The study also put emphasis in identifying the existing local knowledge and how it is useful in the management of the site. In addition, the study was also concerned with identifying the benefits to the local community as a result of conservation of the site. Quantification of conflicts that a rises from the resource use and ecotourism activities were not done as this was outside the scope of the study.

CHAPTER TWO

LITERATURE REVIEW

2. 1 Introduction

This chapter is divided into two sections, namely, literature review and theoretical framework. The literature review is further divided into six sections. The first section deals with management of protected areas, heritage management – historical perspective, heritage management and communities, the challenges in empowering communities in heritage management, sacred sites initiatives in Africa, and national laws and institutions. The second section of the chapter focuses on the theoretical framework, which guided the study.

2.1. 1. Management of protected areas

The colonial strategy for management of protected areas tended to deny local communities access to protected areas as local communities were considered to be a serious threat to nature. This attitude lingers on in the present day policy, management and administration. Exclusion seemed to work for as long as the population levels remained low. The dramatic increase in human numbers in recent years has, however, made this approach almost untenable. Consequently, dwellers around protected areas behave like thieves, sneaking into the forests to extract products for subsistence and sale, bringing in livestock secretly to graze, establishing small cultivations and cutting trees whenever they think they can safely do so. Even though one of the parties may have a constructive solution to conservation and utilization issues, a hidden agenda is usually suspected by the other.

2.1. 2. Heritage management – historical perspective

Native people throughout the world are becoming increasingly vocal about who has the responsibility for the interpretation of their cultural heritage, and in the management of their sites and artifacts, which represent that heritage (Layton 1989a, 1989b). Professionals in heritage management are therefore observing this development with a lot of interests and are supportive of local people's involvement in sites management. Hubert put across fundamental questions, which should be considered in planning for the management of cultural sites – how they are defined or how they can be recognized; who owns them and who has rights of access to them; what they mean to individuals and to communities, and what their relation is to both the living and the dead. These questions are central to the discussion of the management of sites and how they can be protected, both physically and legally, from those people and processes that threaten them (Hubert, 1998).

The ownership of indigenous cultures was seriously affected by colonialism in Africa, Australia and other parts of the world. Colonization institutionalized and legitimized western knowledge and traditions and empowered non-indigenous culture and its material remains, while excluding indigenous people and devaluating their knowledge (Taruvinga, 2005). The colonial legislation further alienated the indigenous communities by recognizing values considered to be important by the western world, thereby deliberately ignoring values important to the communities. This also witnessed the non- recognition of the traditional protection systems, which contribute to the sustainable management of cultural and natural heritage.

After independence, most of the post independent African governments transferred to state ownership most of the heritage resources. Customary local management was replaced by centralized systems. According to Barrow, these early initiatives did not have policy support

or national level institutional commitment, and thus failed to persist. It was not until 1975 those community aspirations were even mentioned in policy and legislation, though these were not acted on until the formation of KWS in 1989 (Barrow *et al.* 2000). The policies and legislation concerning conservation are inadequate and outmoded, which date back to colonial times. They have not been reviewed to address and reflect current realities and circumstances that threaten the survival of heritage.

At the start of 21st century, approaches to management and conservation are moving towards the recognition of values placed on sites and objects by the indigenous communities as well as the associated traditional protection systems. This is being done through amendments of legislation to include protection of values important to local communities, empowering local communities through grass root approach and international conventions such as the Convention on Protection of Intangible Heritage. This development has eventually seen the shifting from a focus on centralized management by government agencies and institutions to a more participatory approach that involves the local community.

Community participation as an approach to management of cultural heritage stems from the recognition by heritage institutions that success will be realized if they address local community concerns. If heritage institutions do not have the support and blessing of local people, the future of such areas is insecure. Many heritage institutions have attempted to create a variety of frameworks. A number have placed community conservation as the major component of co-management, with the notion of collaboration being dominant. However, these frameworks do not always include local community participation. They also do not recognize that rights to the resources like forest resources should be expressed in some form of collaborative arrangement.

At present, heritage institutions operate on assumption that rural people are not capable of managing their heritage thus the conservation and heritage managers seem reluctant to invite the participation of local community and still retain the belief that rural people cannot manage their heritage. This is also attributed to deeply entrenched attitudes amongst heritage managers that they know 'what is best' for local people. However, the state of affairs has changed and the human population has grown, while natural resource areas have shrunk.

Heritage and specifically natural heritage is for many rural people, an important source of their daily needs for food, fuel and medicine among others. The protection of these areas has been effective in conserving the heritage and the resources found within. However, this has created hardship and subsequent enmity with people who use these areas. The adjacent communities have subsequently been excluded from the management of these areas and thus their utilization of resources curtailed.

2.1. 3. Heritage management and communities

Heritage management is a crisis driven pursuit. Management decisions relating to heritage places are dependent on a wide range of factors, including degree of significance, and management opportunities and constraints. According to Taruvinga (2005), heritage management is a complex and diverse issue in that a wide range of expectations and perceptions of all stakeholders have to be met but above all the significance of the heritage place has to be sustained. Heritage management is born out of the concept of Cultural Resource Management (CRM). The definition of CRM has been broadened to include documentation, protection and management of cultural resources, thus bringing out the complexity of heritage management. Irrespective of the term one uses to refer to heritage management, the management of cultural resources has become important. Heritage

legislations is therefore being used in protecting sites and creating a platform for both public and private initiatives that are important to the identification, documentation, presentation, and management of sites. It is apparent that heritage management takes place within a legal and administrative framework established by governments.

According to Taruvinga (2005), local communities can play an important role in management of cultural heritage resources. Local communities are the makers of the heritage as the sites and objects hold certain values associated with their history and identity (Taruvinga, 2005). The community itself determines the significance of a place and from this perspective, they have a right to use their cultural resources. However heritage managers usually view this as a threat to the site thereby failing to realize the usage is central to maintaining and sustaining the value of a particular site.

2.1. 4. Challenges in empowering communities in heritage management

In empowering local communities, there are several challenges which the heritage managers have to deal with and this include: defining the manner in which the local communities should participate in the management process; identifying who should constitute the local community (e.g. local residents, traditional custodians, politicians); recognizing the diversity of the communities and how to balance their varying and sometimes divergent interests; and dealing with political processes that empower local communities through use of local resources. Similarly, dealing with conflicts arising from adoption of traditional protection system such restricted access, sacredness is very difficult, including problems associated with resolving wrangles relating to ownership of sites using traditional systems. It is evident that the participatory approach ensures sustainability because there is a shift from preservation to conservation, and traditional protection systems are recognized. It must be acknowledged

that the continued isolation of local communities in heritage management is a risk as it provides opportunities for destruction (Taruvinga, 2005).

Some of the heritage institutions in Africa are focusing on community participation in managing heritage resources. This is driven by several reasons: the incapability of these institutions to manage heritage from within and without protected areas; the potential for cost-effective local management using informal social sanction; and the values of local knowledge. Therefore, it is the duty of heritage managers to exercise their responsibilities sensitively and cooperation with local communities and individuals. Two way communication with local people is vital to gain understanding of their concerns and aspirations and to convey to them the goals, benefits and obligations that drive from protected landscape policy and management. This is essential to enable the manager to operate in a climate of cooperation with the local communities and broad community understanding and support can be far more effective in achieving cooperation. The manager should see policing and penalty provisions as the last resort.

In managing cultural resources, there are six general principles that have been identified to guide management (Lucas 1992). These principles state that: [1]Landscape protection is possible only when there is a vital and sound local economy with a positive perspective to the future. [2]Landscape management is possible only with support from and involvement of the local residents and therefore the concept of protection must be made attractive to local people, using a mixture of education, financial incentives and local powers of decision. Local people must see that protection provides positive advantages to them. [3]The basic ecological and cultural features of the landscape must be recorded, examined and protected. [4]In planning for development and management there should be available an adequate analysis of

values, goals, impacts and options which can be put forward in non technical terms for discussion with all concerned and which can then be used in whatever form agreed, for ongoing decision-making. [5]The control tools used should be reasonably flexible and should respect the rights, needs and interests of local people. [6] There should be no illusion that a protected landscape can be managed as if it were an island in ecological, economic, political or cultural terms. Its interests must be understood by and reconciled with those of the areas surrounding it

2.1. 5. Sacred sites management initiatives in Africa

A study on sacred forest has been carried out in Mpingi District, Central Uganda with an aim of presenting an example of a traditional conservation system to the forest management. The objective was to illustrate the important role culture plays in the people's decisions about their forests, to proof that sacred forests are of biological as well as ecological importance, and lessons to learn from local institutions. The results indicate that sacred forests are very small mainly found on private land. They are being governed by informal rules passed on through generations by the word of mouth. From the study it was concluded that indigenous knowledge system based on communities' experiences, local conditions, culture and ecology is the focal point in governance of sacred forests. This type of knowledge can be used though in a modified form to manage forests, especially the quick and cheap way of resolving conflicts resulting from the use of forests (Ssembajiwe, 1998)

In the Boosi Chiefdom in the northern Ghana, the Centre for Cosmovision and Indigenous Knowledge (CECIK) has conducted a study to look at natural resource management of the shrines and groves. The following questions were addressed: What structures guarantee the survival of shrines and groves in the Gowrie- Kunkwa area? How do the regulatory mechanisms operate? How are the shrines and groves perceived by individuals and by

communities? What is their role in bio – cultural diversity maintenance? Can they be regenerated and how? (Cosmas, et al 2003)

In Zimbabwe, the association of Zimbabwe Traditional Environmental Conservationists (AZTREC) decided to take woodland management as the starting point for conserving sacred sites in Zimuto area. In the traditional culture the woodlands are considered to be the habitats of the spirits and they provide a place where rituals can be performed (Cosmas, et al 2003)

2.1. 6. National laws and institutions

In Kenya, there are fragmented legislations, policies and implementation mechanisms dominated by the interests of the major institutions such as the Kenya Wildlife Service (KWS), the Kenya Agricultural Research Institute (KARI), the Kenya Forestry Research Institute (KEFRI) and the National Museums of Kenya (NMK). The National Museums of Kenya has the mandate to protect sacred sites. The protection of sacred sites starts when it is declared a national monument and when it is gazetted. According to the law (the National Museums Act – Cap 216), the National Museums of Kenya (NMK) has the power to preserve all the antiquities and monuments. Cap 215 (the Antiquities and Monuments Act) also gives NMK power to preserve objects of archaeological, palaeontological or historical interest but the enforcement of this act has proved difficult. This law does not indicate the protection of biological heritage. Similarly the National Museums of Kenya being a parastatal has no enforcement arm and must rely on other security departments for enforcement of the law.

The management of forests falls under different levels. The majority of closed canopy forestland is gazetted as forest reserves[1] and is managed directly by the Forest Department

[1]These are legally owned by the government and are forests that have been surveyed, demarcated on the ground and declared as forest reserves. They are managed directly by the Forest Department (FD) on behalf of the state.

(FD) and the Kenya Wildlife Services (KWS). The County Councils hold ungazetted trust land forests in trust on behalf of the local people. There are also forests in private ownership, which are small but important for catchments and conservation, managed by respective landowners. The Kenya forest policy regarding management of forests is felt to be weak. The government has put focus on water catchments protection and timber production (illegal logging). The Trustland Act recognizes customary rights but does not allow for a title deed to indicate community ownership. However the Draft Forestry Bill, 2002 recognizes the management and ownership of natural resources by local communities but still does not allow for a title deed (Draft Forest Bill, 2002)

2.2 Theoretical Framework

The theoretical framework used to guide this study was that of community participation in conservation. This covers three important issues, the **community** (which comprises the local people), the **participation** (whereby members of a community participate directly in decision making about developments) and the **conservation** (an act or process of preservation). It is apparent that proper heritage management is not possible without the participation of the local community. Institutions should strive to be more responsive to the needs of the communities they serve. The changes in the management and society, the local communities are no longer socially cohesive as before and the hold of traditional institutions has weakened particularly in the face of economic and development forces. Increasing disregard for cultural values by the youth is also envisaged to be major threat to the future of the sacred forests.

Community participation in heritage management comes in different forms and many terms have been used in trying to explain this participation. Terms that have been used include collaboration, joint, mixed or multiparty management, round table management, participation, involvement, and co-management. But the best definition of what should entail effective community role in heritage management is the term 'participatory management'. It is defined as "a situation in which two or more social actors concerned about a cultural heritage site negotiate, define and guarantee amongst themselves a fair sharing of its management functions, entitlements and responsibilities". This approach recognizes the different values, interests and concerns of all stakeholders in heritage management. It is also open to various modern and traditional types of management, thus ensuring sustainable use of both cultural and natural resources.

Metcalfe (1996) bases his co-management argument on the basis that a number of institutions, be they local, national or international, need to collaborate if co-management is to be successful. IUCN (Fisher 1995; Borrini-Feyerabend 1996) argues that collaboration between a community and a conservation authority becomes a joint agreement governing resource use of an area, despite the area often being under the jurisdiction of a state authority. Basically, there are four types of community participation in conservation and management; (1) top-down; (2) passive participation; (3) towards active participation; and (4) community-led (IIED 1994). However the levels of participation can vary within and between each of the different frameworks being used. It is widely accepted that participation of the local community in heritage management at local level and translating this into practice is difficult, expensive and time consuming. This therefore has to be planned properly before implementation. Likewise, heritage institutions should change from protectionist approaches to approach based on facilitation, dialogue, and enablement.

From time immemorial, cultural heritage sites were entrusted with the community and thus heritage institutions cannot manage these sites without the community involvement. The heritage institutions need to work closely with the community and do the stakeholders analysis and assess the situation on the ground. After assessing the situation, heritage institutions should address current management issues such as Resource use conflict resolution among others. The stakeholders (heritage institutions and community) need to work together by inviting the community to participate actively in the management of cultural heritage. When a community is involved, they will feel like 'owners' of the cultural heritage. Most of the cultural heritage sites are being managed without or with little involvement of the local community. Theoretically this could be the reason why conflicts occur and failure by heritage to manage them effectively. The local communities are the

custodians and users of these sites but are not consulted when drawing plans for management of the sites. Since Museums conserve the sites for the benefit of the local community, they should wholly involve them.

2. 3. Hypothesis

From the literature review, the following hypotheses were formulated:

1. There is no positive relationship between the National Museums of Kenya and the local community in the management of culturally important landscapes in Kenya.
2. The local community can contribute significantly to the conservation and management of Ramogi sacred hill as a cultural site.
3. Collaboration between heritage institutions and local community positively influences conservation efforts.

2. 4. Definition of terms

Community: is a group of people living in a particular local area. It can also be defined as a group of people having ethnic or cultural or religious characteristics in common. In this study, the community will be people living adjacent to Ramogi hill.

Community participation: is a procedure whereby members of a community participate directly in decision making about developments that may affect the community. Community participation is an essential tool through which you can achieve community empowerment and ownership. This involves engaging with your community beyond source of inspiration, material or consultation for an artistic brief and for employing them for more than free labour on a project.

Heritage: is something that is passed down from proceeding generation. It can also be referred to us a status acquired by a person through birth.

Heritage institution: is an institution in charge of heritage set up by the act of parliament.

Heritage manager: is a representative controlling cultural heritage on behalf of the central government or institution in charge of heritage.

Conservation: is the act or process of conserving. It is a preservation or restoration from loss, damage or neglect. It is also referred to as the protection, preservation, management, or restoration of heritage. It is also defined as the management of the human utilization of the biosphere so that it may yield the greatest sustainable benefit to the present generation.

CHAPTER THREE

METHODOLOGY

3. 1 Introduction

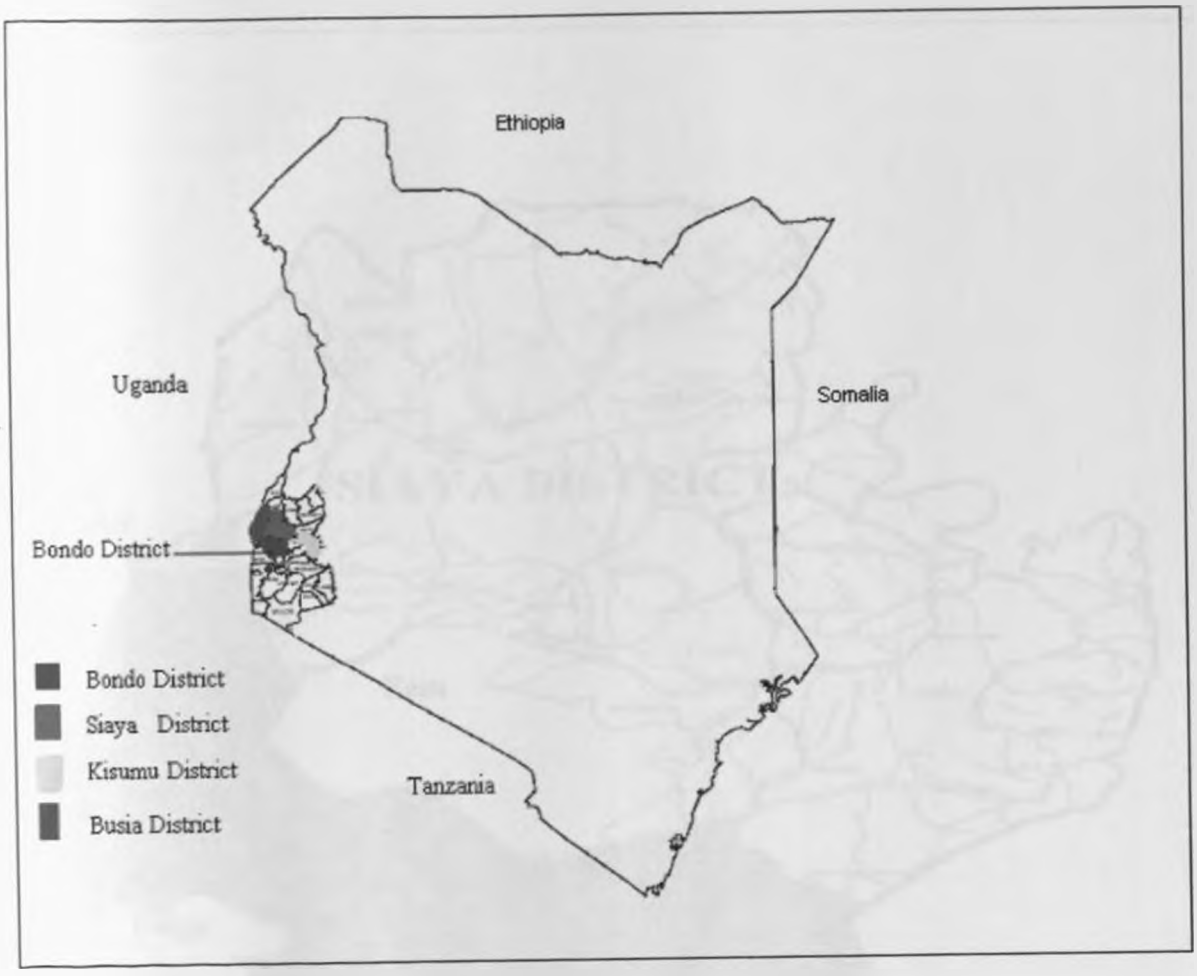
This chapter is divided into four sections. The first section deals with description of the research site, its physical environment, resources, demographic trends, socio economic activities and cultural landmarks of Ramogi hill. The second part deals with the study design in which, the sample selection, data collection methods, and pre- testing. The third section deals with the problems encountered in the field and their solutions and finally the fourth section describes the techniques applied in data analysis.

3. 2 Research site

The study was carried out at Ramogi sacred hill of central Yimbo location, Usenge division of Bondo district, on the northeastern shores of Lake Victoria basin in Nyanza province of Kenya (map 3.1). Ramogi sacred hill comprises of two hills, Minyengira (200 ha.) and Nyaidi (83 ha.). The hill is surrounded by lake Victoria and the Yala swamp in the west and north respectively. To the south – west it is bordered by heavily populated settlements of Oraro, Usigu and Jusa (map 3.2 b).

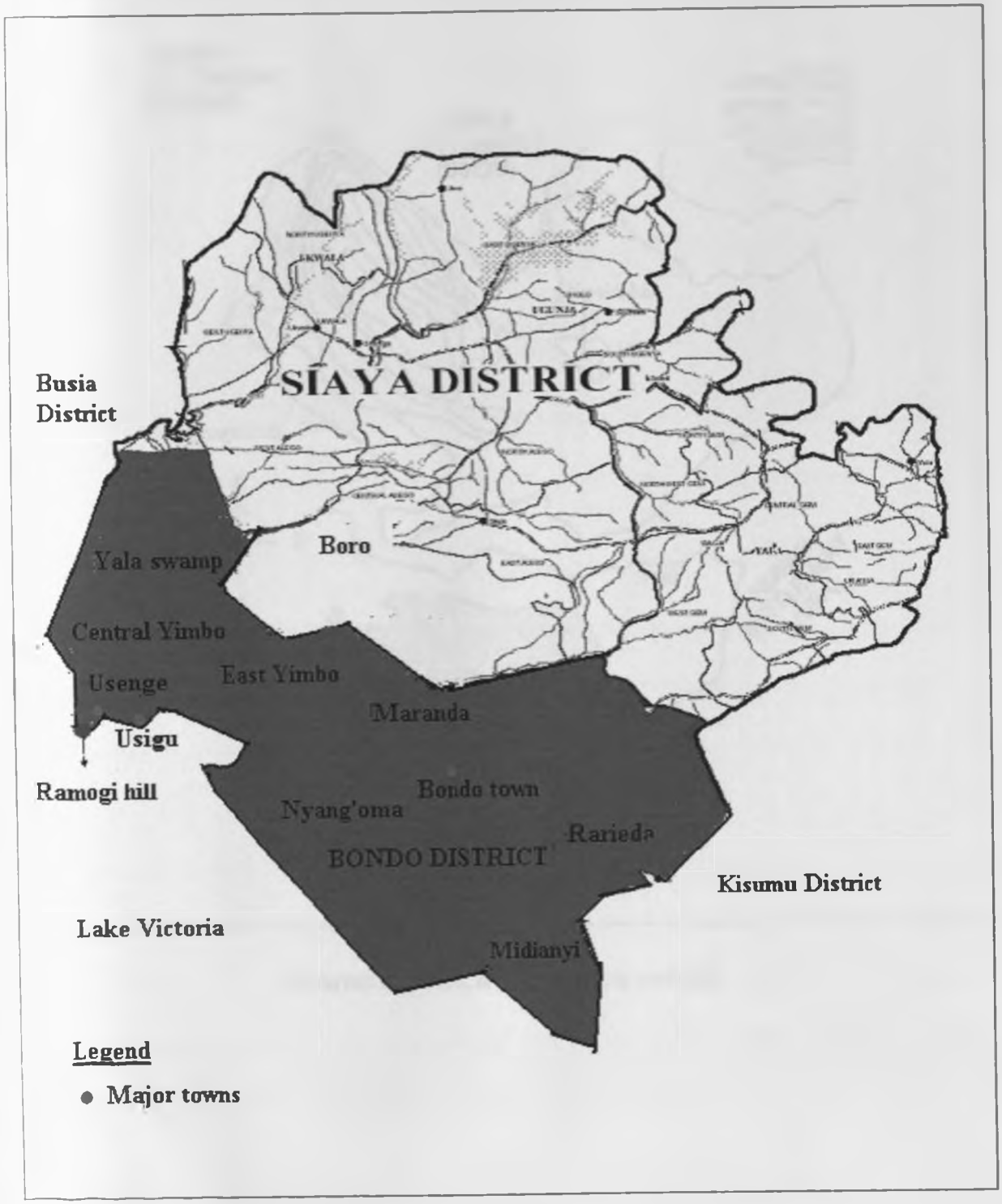
Bondo is relatively one of the new districts having been curved out of the larger Siaya district in 1998 (map 3.2 a). The district covers a total surface area of about 1,972 km^2 of which approximately 1,000 km^2 is covered by Lake Victoria. The bordering districts are: Siaya and Busia to the northwest, Kisumu to the East, and Rachuonyo, Homa Bay, and Suba to the southeast and south respectively. To the west is the republic of Uganda. Administratively, the district is composed of five divisions, namely Maranda, Nyang'oma, Rarieda, Madiany and Usigu. It has 19 locations and 49 sub- locations. It has two local authorities, namely Bondo Town council and Bondo County council (Bondo District Action plan, 2002).

Map 3.1: Position of Bondo District on the map of Kenya.



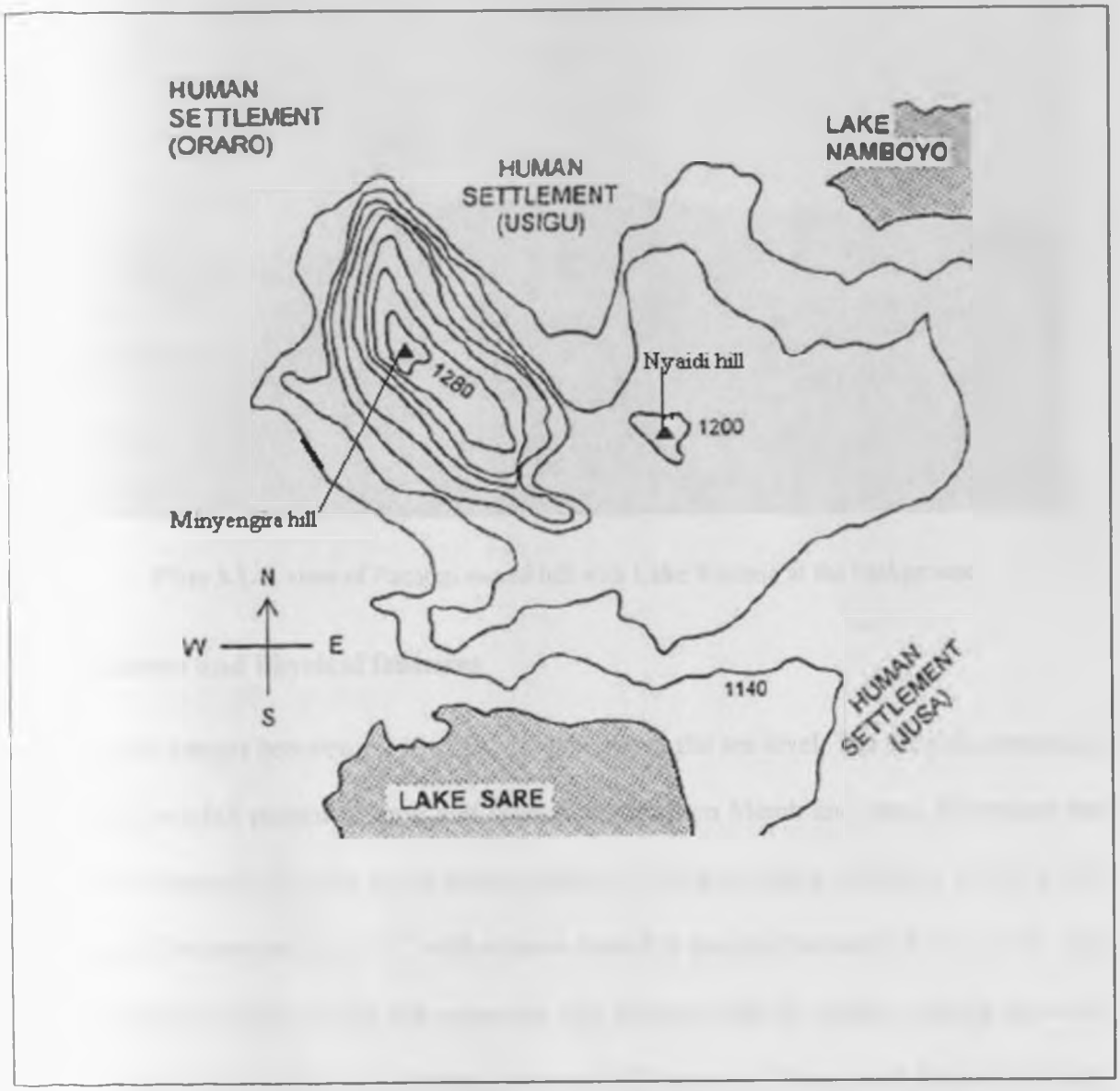
Source: – Relief web: Kenya – Siaya district NGO – CBO activity in flood affected regions May 2003 (map modified).

Map 3.2 a: Position of Ramogi sacred hill on the map of Bondo District.



Source: – Relief web: Kenya – Siaya district NGO – CBO activity in flood affected regions May 2003 (map modified).

Map 3.2 b. Research site: Ramogi sacred hill, the surrounding lakes and settlements.



Source: Bagine, R.K. (1998) – map modified

Plate 3.1. A view of Ramogi sacred hill with Lake Victoria at the background.

3.3. Climate and Physical features

The altitude ranges between 1,140m and 1,280m above the sea level. The district experiences a bimodal rainfall pattern of long and short rains between March and June, September and November respectively. The mean annual rainfall is 910 mm with a reliability of 5% to 6%. The mean Temperature is 22.5°C with relative humidity ranging between 57 % to 77 %. The main physical features include the expansive lake Victoria with its beaches running across all the divisions, River Yala, Yala Swamp, scattered hills namely, Usenge and Ramogi in Usigu division, Abiero and Serafuongo in Nyang'oma division, Rambugu in Rarieda division and Naya in Madiany division. The soils in the district are mainly laterite with low water retention capacity punctuated with red, black cotton and sandy soils.

3. 4. Socio-economic activities

The main economic activity is subsistence farming and fishing along the beaches of lake Victoria. There are a total of 79,600 hectares of arable land and a further 1,716 hectares suitable for irrigation. According to Bondo District Action plan (2002), only 30% of the arable land is under cultivation. The district suffers from food insufficiency and depends on neighbouring districts for food supplies. Approximately, Ksh. 1.8 billion is spent annually on purchasing food from outside the district. Production of cash crops such as cotton, groundnuts, sunflower, sisal and sim sim has reduced over recent years. The fish catch per annum is about 30,000 tonnes but is sold far below the market rate to middlemen due to lack of cold storage and fish processing facilities in the district (Bondo District Action plan, 2002).

3. 5. Demographic trends

The 1999 population and housing census report estimated the total population at 238,065 comprising of 111,717 males, 126,348 females. Approximately 47.2% of the population is poor and 41.1% households live below the poverty line. The most populated division is Rarieda with a population density of 319 persons per square Kilometer. Nyang'oma is the least populated with a population density of 186 persons per square kilometer. The settlement pattern mainly corresponds to favourable climatic conditions, fish landing beaches and pockets of urban/market centres. The lake shores in all the divisions are sparsely populated owing to low rainfall amounts that varies from 500mm – 910mm. In addition, these areas are infested by tsetse flies, malaria and prone to water borne diseases.

Around Ramogi hill, there are eleven clans living adjacent to the hill comprising of about 602 households[2] having 3071 individuals. The local communities are traditionally fishermen but also practice subsistence farming, hunting and gathering. With the new more sedentary lifestyle, the communities are reducing their previously predominant activities of fishing, and dependence on wild food products and have turned more towards agriculture. The crops grown include maize, sorghum and cassava. Most of the households around Ramogi sacred hill keep cattle, sheep and goats that are grazed in the forest. The table below gives information on physical, climatic and demographic profiles of the district.

Table 3.1: The physical, climatic and demographic profiles of Bondo district.

Total area	1,972
Arable area	796
Non – Arable land	176
Water surface	1,000
Urban area (included in non – arable land)	123
Topography and climate	
Altitude: Lowest Highest	1,140 m a.s.l 1, 357 m a.s.l
Rainfall: Long rains (Mar – June) Short rains (Sept. – Nov)	1,600 mm 800 mm
Temperature range	17.5 ° C – 27 ° C
Average temperatures	22.5 ° C
Humidity	57 % - 77 %.

Source: Bondo District Action plan, (2002)

3. 6. Cultural landmarks of Ramogi hill

Ramogi hill in Usigu division is dominantly inhabited by Luo or culturally known as Joluo. The history of the Luo of South Nyanza is part of the history of Luo in Kenya and East Africa. According to the theory, the original home of Joluo was in Southern Sudan.

The Luo began their long migration southwards driven by hunger and war in 1425, led by their leader *KerRamogi Ajwang'*, and settled on Ramogi hill. The *Ker* was regarded highly as

[2] Household is defined as man wives and children who are not married.

a spiritual and community leader. During this movement some settled in Uganda - Acholi, padhola, Alur and Langi and the Dinka, Nuer, Anywak and Shiluk in southern Sudan. Other groups moved and settled on the shores of Lake Victoria about sixteenth century. From the lake - shore settlement they began spreading along the shores to Kisumu and Kano plains. Their movement and settlement in South Nyanza continued into the nineteenth and twentieth centuries. The ancestors of the Luo did not believe in a high god and is an example of the ancestor – worshipping tribes in Africa. They believe in supernatural force and power such as hills, huge rocks and big snakes.

Ramogi hill is the most important cultural site of the Luo thus the hill is considered holy according to their tradition. The community uses the hill for cultural practices. The traditional doctors use the forest as a source of their herbal medicine, whereas church elders use it for prayers and mediation. There are representatives of about eleven clans who are living within and around the hill. Within the Ramogi hill there are a number of sacred points or cultural landmarks. The *Asumbi* rock popularly referred to as *Agulu dhoge ariyo'* 'Pot with two mouths' is where Ramogi family used to get water. It is believed that water from this rock has some medicinal value. Also on the hill are several Ramogi's former homesteads and a sacred lake that is believed to be at the top of the hill. *Mwanda* marks the place where Ramogi entered the hill from Uganda. Medicine men and magicians from the Luo community collect medicine from the environs. Medicinal plants growing around this site and the hill as a whole are said to have higher healing powers. *Loch* tree is said to be the first a place where Ramogi tied his livestock. *Pong'* the grinding stone of Ramogi's two wives is also found at the foot of the hill. *Lwanda Dhiang* is a rock believed to have been a cow, which turned into a stone upon its death. It is famous for rain making ceremonies and the site has a nice panoramic view of Yala Swamp.

Plate 3. 2. The Asumbi rock locally known as *Agulu dhoge ariyo'* - Pot with two mouths. It is believed that water from this rock has healing powers.

3. 7 Study Design

The study was conducted among the people of Central Yimbo location, Usigu Division, in Bondo District. Those interviewed included community leaders and elders, the Assistant Chief, Divisional Officers, Forest Officers, local charcoal burners, fuel wood collectors (women), fishermen and, traditional medicine men and women. A survey, informal interviews, focus group discussions, direct observations on the site and transect walks were undertaken.

3. 8. Sample selection

The sample consisted of all the members of Oraro, Usigu and Jusa settlements (map 3.2 b). The settlements were selected because activities directly related to the conservation of the hill are focusing on these three settlements, as the hill is the major source of their livelihood. The hill is referred to as *Got Ramogi* by the local people, named after *Ramogi,* their ancestor. In the selected households, respondents were sampled by randomly picking on any individual in the households.

Before the research was carried out, the researcher first established the resource persons. Selection of all resource persons was based on how knowledgeable the respondents were. In this case the elders, the forest guards, and government officers in different fields such as administration, culture, environment and forest assisted the researcher in identifying the resource persons. In total, the researcher gathered information from 43 respondents, comprising 21 farmers, 10 fishermen, seven herbalists, five government officials including conservationists and social workers (Appendix iv).

3. 9. Data collection Methods

3. 9. 1. The survey method

To gather qualitative data, an interview guide comprising of open - ended and closed questions was administered to the selected respondents. It was obligatory to use open-ended questions because the idea was to give the respondents leeway to discuss freely their perception regarding the management of Ramogi sacred hill. Visits to households were made and the informants areas of work. The interview guide addressed several issues among them, the utilization of the site by the local community, their involvement and contribution to management, and conflicts arising between NMK and local community over the management of the site. Probing was also done on traditional methods of conservation. Cross checking and editing of the responses given was done in the field to ascertain and detect errors and omissions.

3. 9. 2. Key Informant

Important issues were further probed by interviewing the key informants. Key informants were those individuals who specialize in the utilization and management of the site. This included the Forest Officers, Divisional Officers, local charcoal traders and burners, fuel wood collectors, fishermen, traditional medicine men and women.

3. 9. 3. Focus Group discussions

Focus group discussion (FGD) was a very useful data collection tool. One focus group discussion was held at Ramogi polytechnic. It was used to get views of a group of people with similar interests for example charcoal burners, small-scale farmers, fishermen and the Forest department staff. The discussions revolved around management of the site, utilization, community participation in resource management, as well as intervention strategies in solving conflicting interest.

3. 9. 4. Informal interviews

Informal interviews were used to obtain information on areas of interest. This method was important as it provided a relaxed atmosphere during the study. The informal interviews were carried out during leisure walks, surveys and during focus group discussions.

3. 9. 5. Direct observation

This method was used in the course of fieldwork to complement the other methods of data collection. It involved taking guided walk together with members of the community around the site. Through this, the researcher was able to observe whether there are any conservation activities being undertaken at the site. This method also helped to locate physical presence of stumps in degraded areas and also document some conservation activities being undertaken by the local community. The occurrence of the tree stumps and piles of wood showed the rate of extraction and regeneration. Direct observation also came in handy to assist in getting information that was difficult to extract from the local people and key informants during the interviews. Shorthand notes were taken and latter analysed and harmonized with the rest of the data. Photographs were taken showing different aspects of the hill. The main purpose was to illustrate some aspects of the phenomenon discussed in this report.

3. 9. 6. Transect walk

In this method, the researcher undertook three transects walk through Ramogi sacred hill with the assistance of two resource persons. The transects walk became useful as it facilitated the identification of causes of deterioration at the site.

The first transect walk started behind Ramogi polytechnic towards *Lwanda Asumbi* in an eastward direction, then down in a northward direction into a village, thereafter start climbing in a westward direction towards the hilltop. The transect walk proceeded upwards

through into the Kenya Forest Research Institute (KEFRI) experimental plots then further up to *Lwanda Dhiang* to Ramogi's homestead ruins. The second transect walk started from Ramogi polytechnic through the *Rapogi* via another Ramogi homestead ruins thereafter, *Ramogi's* son, *Alego* homestead then into *Lwanda Alego* at the peak of the hill. A third transect walk started at the Ramogi polytechnic towards *Lwanda Alego* turned southwards to the ridge overlooking Lake Sare. This went further down to the main road and back to Ramogi polytechnic in an eastward direction through *Loch* near *Mwanda* tree (map 3.3)

3. 9. 7. Secondary data

Secondary sources of information including books, journals and other publications were used to collect information on the research topic. The Bondo District Action Plan (DAP) was used to obtain background information on issues relating to cultural significance of the site, natural resources utilization, demographic trends and physical environment. Frequent discussions with local leaders in the area also built confidence and rapport between the researcher, the local authorities and the local community.

3. 9. 8. Pre – testing

Pre testing the research tool was administered to respondents at Kaya Kinondo sacred forest in Kwale District. This was done in order to identify mistakes in the research tool and correct them as appropriate and to pre judge what is expected at the site of study.

3. 9. 9. Problems encountered and their solutions

Suspicion is a common phenomenon in any research as researchers are considered to be spies and agents of doom. This was not an exception as the researcher undertook the study. However, the process of collecting data was preceded by self- introductory to the respondents. The respondents were then asked to fill the questionnaire. The participation was voluntary and respondents were at liberty to give or not give certain information about

themselves or the site. The participants were also given the right to refuse to take part in the study. The participants were assured of their right to privacy and confidentiality of the information. Consent to undertake the research was sought from the authorities. The respondents were also informed of the benefits of the research findings. At one point, to get rid of the suspicion the mention of the word *Mwanafunzi* (student) eased the tension.

The area is infested by tsetse flies, malaria and prone to water borne diseases and the likelihood of contracting diseases was high. However to solve this menace, the researcher took precautionary medication. Occasionally the temperatures were so high (30^{o} C) despite being a wet season. Rainfall was also experienced in the early hours of the evening, which disrupted some of the discussions such as focus group discussions, which were differed until the following day. As part of human nature, some community members refused to respond to questions. They had to be convinced and if unrelenting they were left out of the survey.

Being unfamiliar in the region presented another problem in terms of knowing the places to visit and how to go about. To solve this, the researcher developed good rapport with the local community and employed local research assistants who also doubled as guides. They helped in the identification of the local experts and where to find them and giving directions to key areas.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter presents the findings of the study together with the data analysis. The chapter is divided into four sections, namely the biodiversity and resource utilization, conservation status, ownership and management responsibility and emerging issues on the management of the landscape.

4.2. Overview of the data presentation and analysis

Data analysis was carried out on a daily basis in the course of fieldwork. This was because most of the data collected were qualitative in nature. Answers to open ended questions were given numerical values i.e. coding system. The question number was changed into a variable and the possible answers or values to each question given numerical values (codes). This way the question was changed into a statement but still conveyed the same meaning. Descriptive statistics inform of percentages (%) and frequencies of numerated responses, for example the number of respondents and their involvement in the management, utilization of resources found at the site, frequencies of cut stumps within different zones and their distribution within the site. In addition, descriptive statistics on whether the current arrangement of site management is acceptable to the local community.

Detailed descriptions and personal experiences of the resources found in particular areas of the site were analyzed. Qualitative data were analyzed by assumptions for example medicinal plants growing around Ramogi sacred hill are said to have higher healing powers than any other. Discussions with most of the respondents especially the elderly touched on the past when the hill was 'purely' sacred and the locals respected and worshiped at the site.

They were concerned about the current deterioration of Ramogi sacred hill and similar sites in the region. They expressed their dissatisfaction with the current management arrangement in which the NMK and the Forest Department (FD) are involved. They felt that they have been denied access and utilization of the forest resources as it was before. General ideas were formulated according to the purpose of study i.e. exploring and analyzing the level of community participation in management of Ramogi sacred hill. By analyzing the correlation between the independent and dependent variables of this study, it was possible to create a sequence of corroboration. Qualitative methods of data analysis assisted in the description of different methods used in the past in the management of Ramogi sacred hill.

4. 3. Conservation status

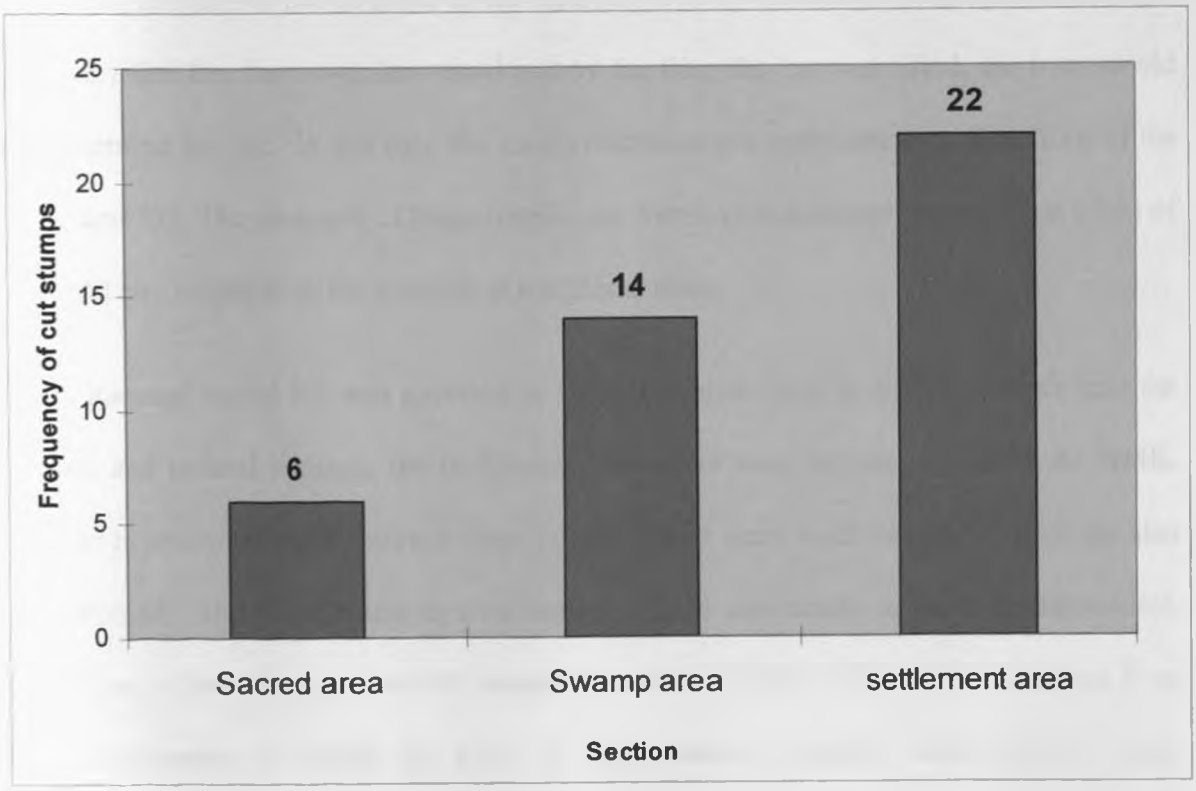
In assessing the conservation status there were conflicting views between the local community and the government officers. However, both sides agreed that degradation of the resources is caused by excessive harvesting and indiscriminate cutting of trees by both small scale commercial loggers and the local community who use poles for house construction, fuelwood and boat making. The community blamed the government officers (forest guards) who were corrupt and negligent in their work. The local community has been alerting the government authorities about the logging that was causing degradation in certain sections of the forest only to realize that no action was taken and therefore it was hard to convince them of the need to conserve the resources when the government itself was encouraging the destruction.

The local communities in the three settlements Jusa, Usigu and Oraro depend a lot on their environment and for this reason they pay a lot of attention to its conservation. Before gazzetement, the site was a trustland or belonging to the community, managed by the community

in collaboration with the FD. Harvesting of forest resources is active in all the three settlements areas, and has been going on for a long time.

Figure 4.1 indicates that more trees are harvested frequently around the settlement and swamp areas compared to sacred areas. The harvested trees are mainly used for firewood. There is an indication of large trees in the sacred section of the forest as the practice encourages the growth of mature trees. Most of the tree species harvested across all the three zones is similar and are used in building houses and as fuelwood.

Figure 4.1.Bar chart showing the frequency of cut stumps by area.



During the focus group discussions elders described several techniques that were used in the exploitation of the forest resources before the people's attitudes and values were transformed. With the transformation of the society and management, the local community is no longer socially cohesive as before and the value of traditional institutions has weakened which

opened the forest to exploitation to an extent of degradation to irreversible level. Some government officers who are said to have supported poaching of the forest resources worsened the situation. Even though individual sections and certain trees have specific rules, some general rules apply. At times, traditional medicine men restricted certain sections of the forest or certain tree species for sometime and no one could enter. No unauthorized member of the community could enter the secluded section or cut a tree. However, the indigenous medical practice was the prerogative of certain clans or families within the community thus limiting the number of people who would exploit the highly valued plants in the forest. The researcher interpreted this as some of the methods used by the elders to replenish sections of the forest that has been over harvested and by the time the ban was lifted, the trees would have matured for use. In this case the local institutions are complementing the efforts of the NMK and FD. The presence of large trees in the forest with diameter breast height (dbh) of over 100 cm, emphasizes the strength of traditional rules.

When Ramogi sacred hill was gazetted as a national monument in 2003 to protect both the cultural and natural heritage, the traditional institutions were not recognized by the NMK. The site is protected under the state laws, but these laws carry weak penalties, which are also not enforced. The gazzetement as a monument left the community as passive stakeholders. According to the elders, community based management linked with traditional values is an important means to realize the goals of conservation especially when modern forest management mechanisms and traditional norms complement each another. The best results are achieved when state laws are harmonized with the objectives of the local institutions.

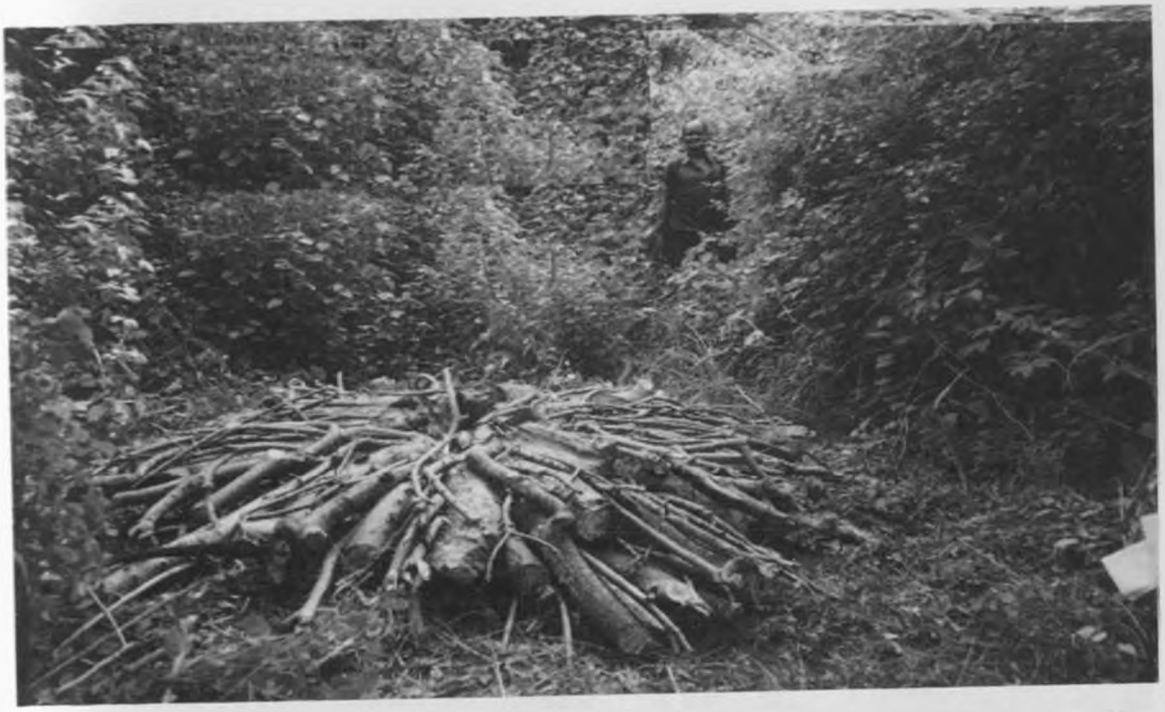


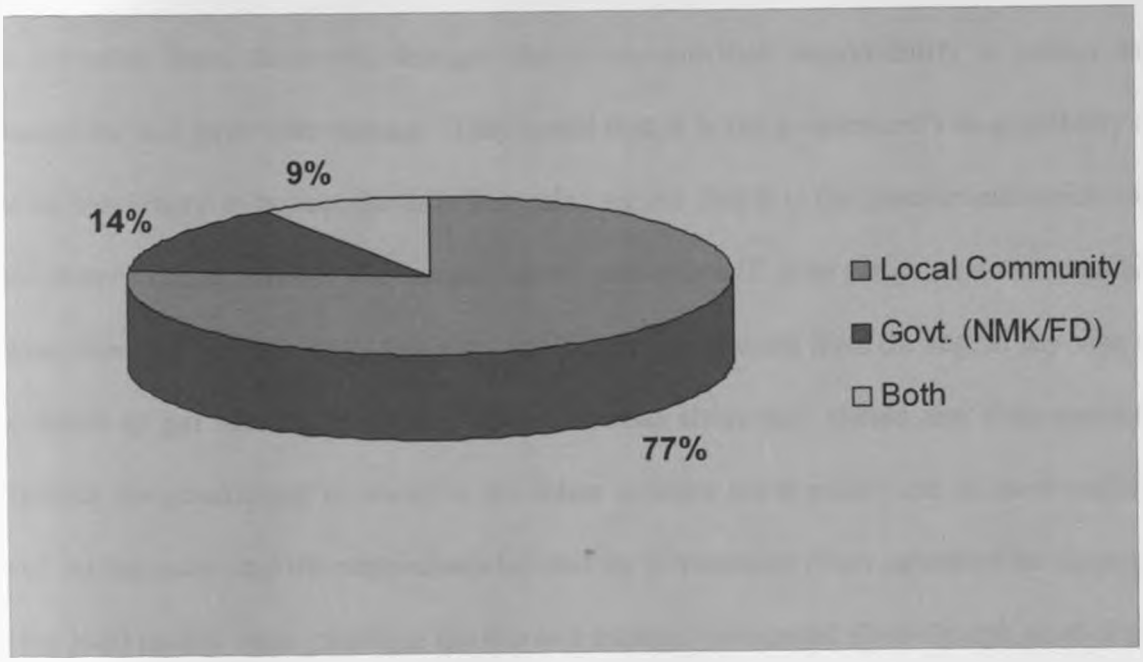
Plate 4.1 A pile of wood ready for charcoal burning from one of the most preferred *acacia* species.

Plate 4.2. *Lecarniodicus flaxinifolius* (Loch), a sacred tree estimated to be over six hundred years old.

4. 4 Ownership and community involvement in management

When interviewed on the ownership of Ramogi sacred hill and its resources, 77 % of the respondents stated that the local community own the resources. 14 % said that it was a NMK/FD (here after referred to as government) property. This was supported by the key informants, particularly the Forest and Divisional Officers in Usigu and during the FGD, and therefore it is the government to regulate and oversee the utilization of the resources. Nine percent stated that both the government and the local community own the resources (Figure 4.2).

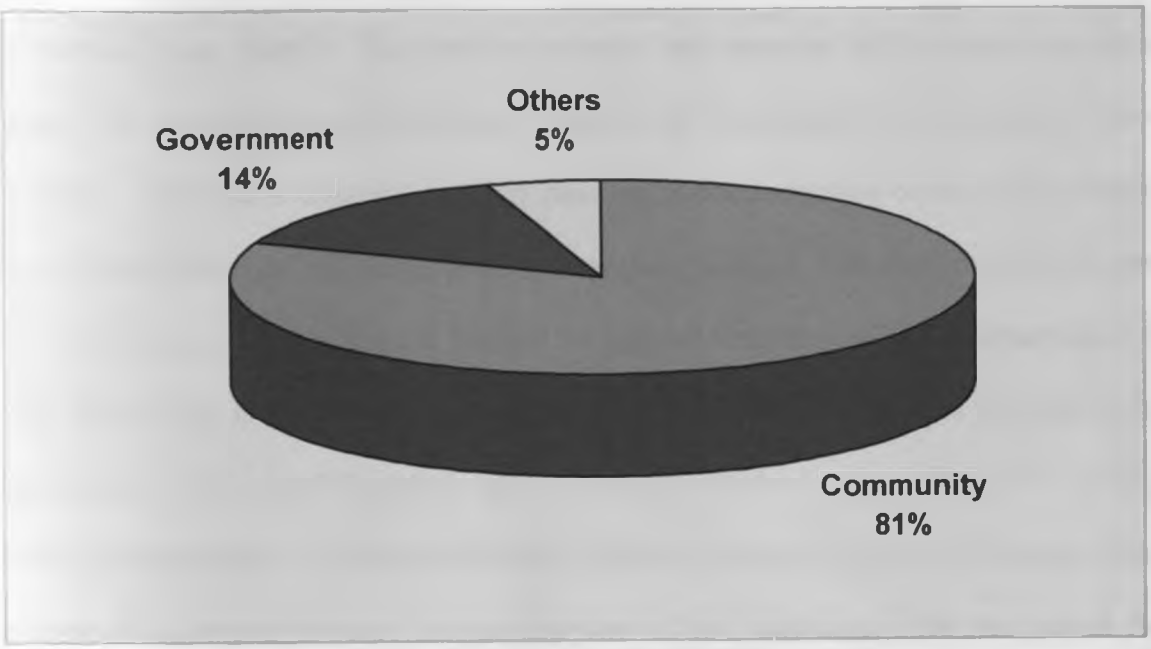
Figure 4.2. Respondents' views on the ownership of resources at Ramogi sacred hill



When the local community was asked whether they are responsible for the management of Ramogi sacred hill, 81% stated that traditionally, it has been their obligation to protect the hill, while 14% stated that it was not their responsibility and five percent did not know their position. The reasons for the response were diverse. For those who were responsible for protection and management said that it is the responsibility of every member of the community to protect the resources. They uphold the customs and beliefs of their forefathers, respect creation and live in harmony with nature. They belief that they meet their ancestors by visiting the sacred forests. The sacred forest and the immediate environment is therefore a vital part of the social structure bonding together the traditional life.

On the other hand, those who thought that it was not their responsibility to protect and manage the site gave their reasons. They stated that, it is the government's responsibility to use its machinery to protect the hill. They also argued that it is the government which will benefit in future in terms of tourism and all the proceeds will go to the government. Another reason was that since many of the local and national politicians from the region pay visit to the forest to get blessing especially during election time, they should use their status to influence the government to conserve the forest as some are at policy and decision making level. At the same time the respondents felt that the government never consulted the majority of the local people when gazetting the site as a national monument. Even though most of the village elders are involved in the stakeholders meetings, it seems information is not passed down to the villagers at grassroots level thus most villagers were not aware of the gazzetement.

Figure 4.3. Respondents' views on the management responsibility of Ramogi sacred hill



On the opinion on the present arrangement for the sustainable management of Ramogi sacred hill, 86% were not satisfied as the resources have depleted further and this was blamed on the existing arrangement. Though the communities are aware of the diverse resources in the landscape, they are not organized into proper structures that enable management of the resources in the landscape. Further more the Forest Officers were lax and encouraged or participated in the extraction of trees and other forest resources. They had an opinion that to reduce further degradation, strengthening community involvement in resource management and use of their indigenous knowledge and recognition of their traditional institutions was important. 14% were satisfied and gave the main reason as the government institutions having resources to rehabilitated depleted sections of the hill. In addition, the question of the community being sidelined in the management activities came out clearly during the focus group discussion and informal interviews. The local community can only participate in the protection of Ramogi sacred hill if they feel they have a stake it.

The perception of local community towards management of Ramogi sacred hill by the NMK (government) was negative. The local community has come up with a project aimed at setting up a community resource center - Ramogi hill Eco-cultural and Education Center (RHEEC). This will encompass a village museum, a documentation center cum a library, curio kiosks, picture gallery, nature trails and camping facilities. The center will be a central place where information on Ramogi hill and the regions' ecosystem will be made available to local, national and international visitors. However, when asked how they are involved in the management of the site, 58% stated that they are not involved and do not know anything about the management of the site by the NMK. They feel that they have never been given the platform to contribute towards the management of the landscape. 14% hear about the conservation initiatives by the NMK through public forums when the local administration like the Divisional Officer (DO) and the Chief talk about government policy to conserve the hill and forests in the country as a whole. They are warned not to step in the forest as they will be arrested and charged with trespassing into a government land, thus they are not concerned about the management of the hill. 28% thought that they were involved in the management of the hill. *Ramogi Alternative Medicine and Cultural Centre* which was established in 1992 was identified as one of well-established community Based Organization (CBO) around Ramogi hill through which these respondents are involved in the management of the hill. This group has an objective of conserving the environment and natural resources at Ramogi hill. The group has a membership of 35 people both men, women and youths. Their main activities include herbal medicine, agro forestry, guide visitors to Ramogi hill cultural sites and perform annual cultural festivals. Other groups include *Umba*, *Tang'chon Ber* and *Lipere* women groups.

Plate 4. 3. Community members of Ramogi hill Eco-cultural and Education Center

The causes of resource depletion on the hill are diverse. The local community depend fully on the forest for both domestic and small-scale commercial requirements, which has necessitated excessive harvesting. Among them is the use of forest products for firewood, medicinal plants, poles and post for building.

For instance medical facilities in the area are few with few dispensaries and clinics. The only available government hospital is in Bondo town about 40 km away from Usenge. Most people have to travel long distances to either Bondo town or the neighbouring Siaya district. Thus there is considerable reliance on herbs from Ramogi sacred hill for many ailments. It is visibly evident from many homesteads that communities have depended and may continue to depend on these resources in the long term for construction. Selection of poles for construction is based on a need for straight and preferably durable trees. Favoured indigenous

trees are *Croton dichogamous* (Ohunywa), *Drypetes gerrardii* (Odar) and *Dichrostachys cinerea* (Okiro) among others. As elsewhere in the rural areas the major source of household energy for cooking and heating is fuelwood. The entire house holds within the radius of 1–5 km use fuel wood from the forests for cooking. By the time of gazetting as a national monument, encroachment by small-scale farmers was recognized as the main threat, largely because of the high population densities in the surrounding settlements. The crops grown are maize, sorghum and cassava among others. Small-scale extraction of soil for pot making by the local women groups is another potential threat to the cultural landscape. This causes disturbance to the fragile ecological system. Encroachment of some exotic tree species in certain parts of the forest is a pronounced problem especially the *Eucalyptus camaldulensis* that has the potential to upset the hydrological balance as well as ecosystem structure.

Plate 4.4. Soil harvesting site at Ramogi sacred hill

4. 5. Community Resource Utilization

The respondents demonstrated a high knowledge level of the resources found within the site. Major forest products used by the adjacent communities include fuelwood, medicinal plants, poles and post for building, charcoal and small game meat. Most of the inhabitants from the three settlements depend on the forest for both domestic and commercial requirements. For example, all the house holds within the radius of 1–5 km totally use fuel wood for cooking. 90% of the fuel wood used is obtained from the forest and the rest from private farms thus it has a direct negative impact on the forest condition. Fishing is one of the most important activities in the area. Fuel wood from the forest is used in smoking and frying fish. The tree most commonly used for smoking is *Rhus natalensis*, which they claim adds flavour to the fish. However the tree species is extinct in the region.

Plant diversity is estimated to be over 500 species and various species of wildlife. For example *Euphorbia candelabrum* is found all the way up the slopes of the hill. The local name for this tree is *Bondo* and due to its local abundance, it was the source of the name for Bondo district. The locals use the milky sap to make bird traps. When dry, the wood is used for firewood. *Acacia sieberiana* var. *woodii* is the commonest species, covering major part of the hill. *Acacia brevispica* ssp. *brevispica,* a leguminous shrub, is common from the bottom of the hill to the top, contributing a great percentage of forest cover in the lower shrubby canopy. The stems are used for building rafters and as firewood. *Croton dichogamous,* a widely spread shrub up to 4 m. in height, is common all the way from the bottom to the top. *Aloe* sp. is common growing on shallow soil among rocks. Powder from its stems is used in making traditional beer. *Acalypha volkensii* is another common shrub, contributing much in shrub canopy cover. *Milicia excelsa,* an evergreen tree up to 30 m. high, is a sacred tree believed to be the 'mother' of all other plants around the Ramogi sacred forest. *Lannea*

schweinfurthii is occasionally found in the sacred forest. The community makes decoction from the stem bark, mixed with the bark of *Kigelia africana,* for treatment of cholera. To the north and east of Ramogi sacred hill lays the Yala swamp, whose dominant vegetation is *Cyperus papyrus*. The plants grow to a height above 2 m. producing much branched inflorescences, forming about 80 percent of the shrub cover of the swamp. Papyrus is very useful to the community as it provides raw material for making mats, which are sold in local markets. The mats are used in most homes for thatching houses and making ropes from the stems. Endangered fish species breed underneath the papyrus.

Several plants in the hill are threatened by intensive human activities. For example *Markhamia lutea* and *Olea europaea* are used in house construction, making charcoal and firewood, *Brachylaena huillensis* is used for woodcarving. One tree of *Lecarniodicus flaxinifolius* is estimated to be six hundred years old. *Milicia excelsa* is said to be the 'mother' of all other plants in the hill and endangered in the region. *Ochna ovata* is also threatened due to its popularity in construction of houses and tool handles. *Rhus ruspolii* and *Brachylaena huillensis* are threatened due to their high value as medicinal plants.

Table 4.1: Utilization of some common plant species

Scientific name	Local name	Uses
Acacia brevispica	Ongaso, Osiri	Stems are used for building rafters and making firewood
Acacia sieberiana	Oldebesi	Firewood and charcoal
Albizia coraria	Ober	Stems used as firewood and boat making
Aloe sp.	Ogaka-Lang'o	Powder from stems used in making traditional beer
Combretum molle	Keiyo	Wood is used in house building, firewood.
Commelina benghalensis	Odielo	Leaves are cooked and eaten as vegetable
Croton dichogamous	Ohunywa,	It produces hard wood used for building
Cyperus papyrus	Togo	Papyrus is very useful to the surrounding community as it provides raw material for making mats, which are sold in local markets.
Dichrostachys cinerea	Okiro	The stems are used in building houses as well as for fencing.
Drypetes gerrardii	Odar	Stems are used as building posts.
Euphorbia candelabrum	Bondo	Gum made from sap, firewood
Euphorbia tirucalli	Ojuok	Firewood
Ficus valli-choudae	Ng'ou	Wood is used for making boats and mortars
Harrisonia abyssinica	Ohudhue	Wood is used for making firewood, building and fencing
Ipomoea kituiensis	Obinju	Firewood
Kigelia africana	Yago	Baked slices of the dried fruits are used to ferment beer. The stems are used for making mortars
Lannea schweinfurthii	Bongo	Decoction from the stem bark, mixed with the bark of *Kigelia africana* (yago) to treat cholera
Lantana camara	Nyamridhi	Stems are used in making fire
Lecarniodicus flaxinifolius	Loch	Sacred tree estimated to be over six hundred years old
Markamia lutea	Siala	Building houses, making charcoal, firewood
Milicia excelsa	Olua	Sacred tree and regarded as mother of all other plants on the hill
Ochna ovata	Lwanda	Stems are used in making stool handles and also used for building. The wood is used for making fire
Olea europaea	Kango	Produce excellent firewood and charcoal.
Sesbania keniesis	Oyieko	The community uses the branches as cattle fodder during dry season
Tamarindus indica	Chwaa	Fruits used in making traditional porridge
Uvaria scheffleri	Olang'o	Fruits edible
Vitex fischeri	Jwelo	Leaves boiled for treatment of rushes for the treatment of kidney disease

Table 4. 2: Levels of resource utilization

Type of Activity	Who extract the resources
Cutting the trees for construction of houses and fishing boats	Men
Collection of firewood for domestic use	Women and children
Extraction of medicinal plants	Men (traditional doctors)
Extraction of special clay soil for pottery	Women and children
Hunting game	Men and young boys
Grazing	Young boys and Men
Charcoal burning (illegal)	Men
Collection of wild vegetable and fruits	Women
Logging timber (Illegal)	Men

From table 4.2, one can see that men know more about the tree species that are used for construction of houses and fishing boats. Women are knowledgeable about the species that are used as fuel wood and other wild harvests that they collect as food. There is evidence of selective tree cutting, grazing and hunting. Many tree species are harvested for building and charcoal burning while animals (small game) are hunted for meat. The most affected indigenous plant species are *Acacia brevispica*, *Olea europaea*, *Brachylaena huillensis*, *Ochna ovata*, and *Rhus ruspolii, which* exploited for firewood, charcoal and for medicinal purposes. As a result of extensive disturbance the animal diversity in Ramogi sacred hill is low. The community also use the forest resources not only as their source for day to day needs but also for cultural and religious practices. Traditional doctors use the forest as a source of herbal medicine, whereas church elders (Legion Maria sect) use it for prayers and meditations. It can be concluded that, from this use of forest resources, the community value the role played by Ramogi sacred hill forest.

The non – adoption of modern farming methods and low annual rainfall hamper commercial agricultural production, although the area has great potential for cotton and rice production.

Similarly, the fishing industry faces marketing and storage problems and does not provide the expected benefits. This leaves the forest as the alternative livelihood support.

In this study, 19% of the respondents concurred that Ramogi sacred hill has held a central position within social and cultural life, inspiring respect through taboos and norms. 26% of respondents mentioned that the Ramogi sacred forest where the remains of their ancestors lie, are the sources of many medicinal plants and have been protected for many centuries. As per the traditional management system, no axe or iron tool was allowed in the sacred forest and only mature trees were cut on the periphery of the forest for building houses but with strict permission from the elders. Before cutting any tree, one has to pray and request for permission and blessing from the ancestors. 22% of the respondents mostly women, utilize the hill as a source of fuelwood. Previously women were not allowed to collect firewood within the forest. When ceremonies were taking place non-members were not allowed to enter the forest. Any artefact believed to have been left behind by the ancestors like *Pong'* - the grinding stone, are kept in their original places and no one is allowed to move them. 16% of the respondents utilize Ramogi sacred hill for grazing which is allowed only during dry season and on the precincts of the forest. 12% of the respondents mentioned that they utilize the forest resources for charcoal burning. Like any other forests in Kenya, the most serious threats to Ramogi sacred forest is the demand for trees preferred for charcoal burning and fuelwood, and which is used to meet the subsistence need of the local community. Mostly men, especially the youth are involved in the charcoal burning and extraction of fuelwood for sale in the nearby Usenge town for fish smoking. The Forest Department (FD) jointly manages the hill with the NMK, and the FD has set rules for extraction of certain forest products. The local community has disregarded these rules since they feel they are being denied rightful access to the resources and there is mistrust between the local community and the

government officials. Access by local community to the forest is sanctioned through permits for instance, thatching grass may be collected and cattle grazed upon payment of a monthly fee. Dead wood, which is the main source of fuel, is collected upon payment of Kshs. 35, however cutting live wood or even carrying an axe is prohibited. Despite this, most harvesting goes unchecked in the forest areas adjacent to settlements.

Figure 4.4.Pie chart showing different levels of utilization of Ramogi sacred hill.

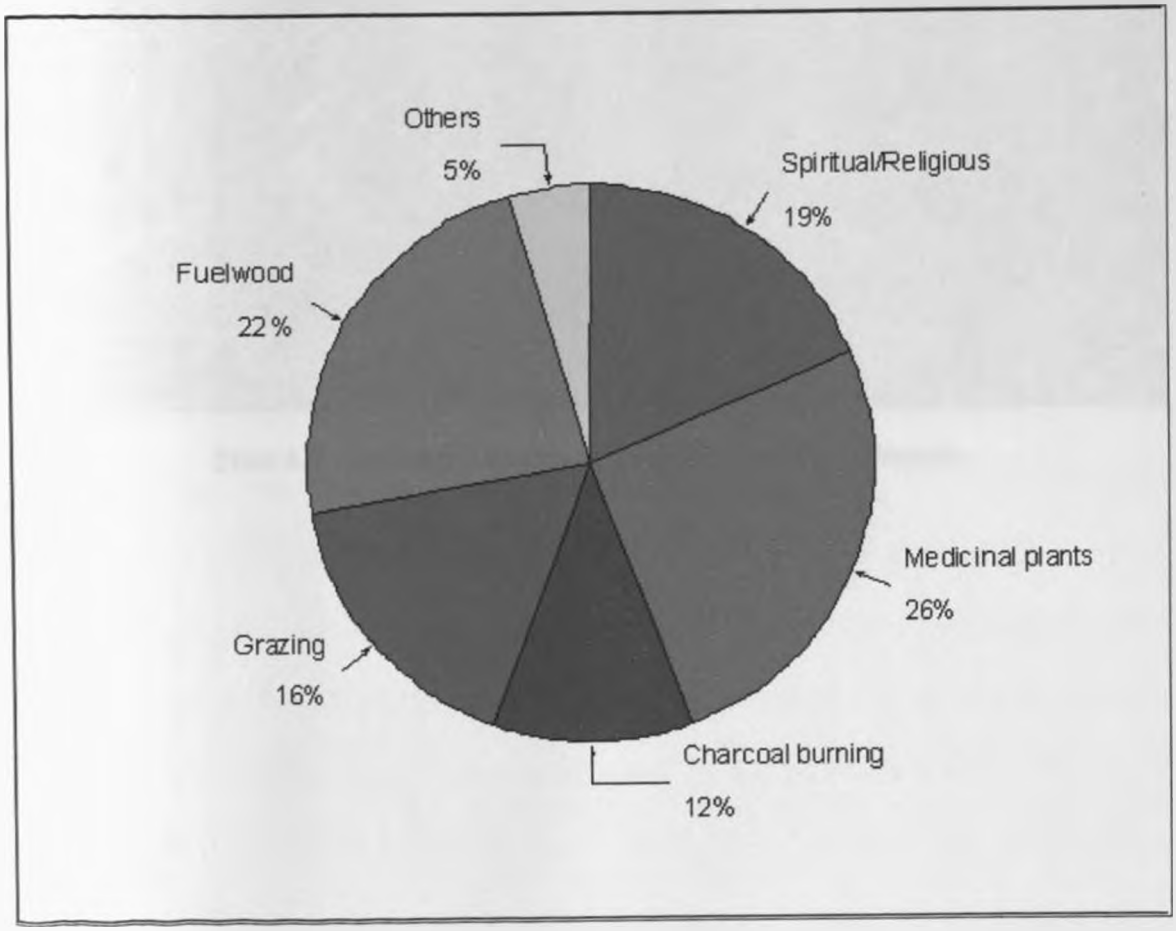


Plate 4.5. Cut stump in the forest area adjacent to the settlements.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5. 1. Introduction

This section gives a summary and conclusion of the major findings of the study. The recommendations based on these findings and the overall conclusion of the study is given. Furthermore suggestions are made based on local community perception on NMKs' approach towards the management of the cultural landscape.

5. 2. Summary of Findings

From the findings it was noted that Ramogi sacred hill contains two hills: the smaller on the northern section (Nyaidi measuring approximately 83 hectares.), and the larger (Minyengira measuring approximately 200 hectares) on the southern section, where the important features are located. The importance of Ramogi hill is linked to its natural resources and cultural values. Ramogi sacred hill has held a central position within social and cultural life, inspiring respect through taboos and norms. It is the source of many medicinal plants, which has been used by the entire community for many centuries. The management of cultural landscape should be revised in favour of more participation of the local community. The modern techniques of managing the cultural landscape should be harmonized with the indigenous methods. In addition to government enforced rules, the recognition of indigenous rights to forest resources management and utilization can lead to successful management practices.

The depletion of Ramogi sacred hill is attributed to many factors. Among them is the fully dependence on the forest for both domestic and small-scale commercial requirements. The local people are engaged in charcoal burning and extraction of fuelwood for sale at the nearby commercial centres as well as domestic use. There is over reliance on herbs from

Ramogi sacred hill forest for many ailments. Construction materials such as poles and durable trees are excessively harvested from the forest. Depletion of the forest resources was also attributed to laxity among the forest officers charged with the responsibility of managing the site. From the finding it is evident that the local people value their cultural heritage. They have always had techniques that realised the preservation of their environment.

During the survey several issues emerged. Conspicuous were issues related to reconciling conflicting interests between the local community and the government agencies mandated to manage the site. The major question revolved around how to manage the site, its resources and community benefits. Similarly, the idea of coordination of the activities and networking among the stakeholders featured. Benefits to the community after the gazzetement of the cultural landscape featured most during the discussions with the respondents. Most of the community members perceive the gazzetement as nothing new but continuation of the past situation where they have been sidelined in the management of the landscape. The need to strike a balance between conservation and socio economic needs was discussed.

There are strong links between human needs, conservation and economics thus plans to protect cultural landscapes and natural heritage in general go off target if social dimensions are ignored or local communities are ignored. Limiting and restricting local interests, access and use, make collaboration between the people and the conservation agencies impossible.

The policy regarding management of forests in Kenya is biased and mainly focuses on water catchments protection and timber production (illegal logging). The Trustland Act recognizes customary rights but does not allow for allocation of title deeds to indicate community ownership.

Apart from the government agencies, it is important to involve other stakeholders in the management of the site. Only two CBOs namely Ramogi hill Eco-cultural and Education Centre and Ramogi Alternative Medicine and Cultural Centre which are involved in the conservation of the hill, no other CBOs or NGOs are involved in management of the site.

On the ownership of the site, the local people felt that the landscape belong to the government conservation agencies that is the National Museums of Kenya and the Forest Department. Most of the local people stated that they appreciate the government's effort to conserve Ramogi sacred hill but they felt they were being sidelined in their efforts to contribute to the conservation of the site. The problem arises from the role each stakeholder has to play. On one hand the government conservation agencies believe that it is their legal responsibility to take care of the resources at the site. The National Museums of Kenya has the mandate to protect cultural sites found within protected landscapes. The protection of the site starts when it is declared a national monument. According to the law (the National Museums Act – Cap 216), the National Museums of Kenya has the power to preserve all the antiquities and monuments. Cap 215 (the Antiquities and Monuments Act) also gives NMK power to preserve objects of archaeological, palaeontological or historical interest. At the national level, management of forests falls under different levels. The majority of closed canopy forestland is gazetted as forest reserves and is managed directly by the Forest Department (FD) in collaboration with the Kenya Wildlife Services (KWS). The County Councils hold ungazetted trustland forests in trust on behalf of the local people. The highhanded manner in which the cultural landscape is managed by government institutions, and continued isolation of the local community, poses a threat to the overall management of the site. There is need to initiate awareness campaigns to educate the local youths and community at large on the need to conserve the site. Increasing disregard of cultural values

by the youth is envisaged to be a major threat to the future of the cultural landscape. Similarly, the local community and all the stakeholders should be educated on the importance of cooperation in the management of the site. The cooperation will improve the relationship between the stakeholders and remove any mistrust, and each stakeholder should appreciate the role of each player and resource user groups.

5. 3. Conclusion

The recognition of the local people's rights to forest resources management and utilization can lead to successful management practice. The local people tend to abide by the traditional rules that elders prescribe. Similarly, appropriate conservation strategies should be undertaken to ensure the continued existence of the site and the preservation of its cultural history, and for conservation of flora and fauna. The preservation of the cultural landscapes will help to safeguard their future. There is need for continued undertaking of inventories and documentation of information related to their biological resources, as such information will be necessary for planning a community based participatory approach towards sustainable use of these sites. More so, policy on the use of cultural landscapes could have more meaning if given a cultural dimension. People will only support programs that they are fully involved in and stand to benefit.

Last but not least, Indigenous knowledge (IK) is a knowledge base that local communities have developed over time. It includes knowledge on conservation and utilization of natural resources. IK is a difficult concept to define but it is the basis for natural resource management and use by local communities, which has helped them in the selection of foods, medicine, clothing, shelter and other necessities in their livelihoods. However, IK has neither been seen in a proper perspective nor accepted as an important tool for development

nor has it been given a positive outlook in entirety for its acceptance as an important tool for development.

Generally, the community involvement in the conservation of Ramogi sacred hill is affected by the community attitude towards conservation. The community involvement is at very low level, which is a result of the failure of the NMK to create an appropriate platform for participation which could cater for their needs.

5. 4. Recommendations

The National Museum of Kenya should make an effort to address the current destruction of the cultural landscape and that of the sacred forest. This should be done in liaison with local communities and government agencies. It is important for all involved in the protection of the site to have a clear and common understanding of the concept, the goals and the mechanisms by which the goals are to be achieved.

Appropriate conservation strategies should be undertaken to ensure continued existence of the cultural landscape and the preservation of its cultural history. This can be done by developing programs that maintain its integrity and the associated cultures. The local people have various cultural practices thus programs implemented to conserve the cultural landscape should incorporate support to these practices.

Local communities should be informed and sensitized on the socio economic importance of the site. The hill has the potential for the development of eco-tourism and this initiative can bring income to the local community. The site should continue to be a common property and the local community should be given priority in such development initiatives. These should however not be done at the expense of the aesthetic and cultural value and should not in any way affect the local biodiversity.

There is need for further research to assess the management needs of the site. The findings should facilitate the development of sustainable and appropriate management plan, which should focus on sustainable use of the natural resources.

Similarly, there is need to work with relevant government ministries to reinforce political will to update and implement policies, legislation and practices directly affecting conservation of the such cultural landscapes. As encroachment onto cultural sites continues, there is an agent need to set up a joint management committee with local communities. An example is collaboration, which has existed between the National Museums of Kenya in protecting the Kaya forest in the coastal region. This partnership has helped the revival of the weakening of traditional protection systems due to social, cultural, and demographic changes in local communities. This can be replicated at Ramogi sacred hill and elsewhere in the country. Furthermore there is need to take into account diverse opinions of both the local community and government agencies.

Lastly, since the local community is directly involved in the management of the landscape, they should be allowed to monitor the progress of the conservation activities and utilize the resources as well.

BIBLIOGRAPHY

Awori, A. K., Githutha and **O. Kapiyo 1996.** UHAI: A model for sustainable livelihood and natural resources management for Africa. Nairobi: Kengo

Bagine, R. K. N. Biodiversity in Ramogi Hill, Kenya, and its evolutionary significance. African Journal of Ecology. 1998; 36(3) 251-263.

Barrow, E. G. C., Gichohi, H. and **Infield, M. 2000**. Rhetoric or Reality? *Community Conservation Policy and Practice in East Africa* - African Wildlife Foundation, Nairobi, Kenya.

Bondo District Action Plan (2002). Government of Kenya.

Cosmas Gonese, *et al* 2003; In Ancient Roots, New Shoots; Endogenous Development in Practice.

Government of Kenya 2002, Draft Forest Bill.

Government of Kenya 1984. *The Antiquities and Monuments Act.* Nairobi: Government Printer. Revised ed.

Hubert, J. 1994. *Sacred beliefs and beliefs of sacredness*: In Sacred sites, Sacred Places, David L. Carmichael *et al.* (ed.), New York, USA; Routledge 1994.

IIED. 1994. *Whose Eden? An Overview of Community Approaches to Wildlife Management.* London, International Institute for Environment and Development.

IUCN 1996. Forest cover and forest reserves in Kenya: policy and practice. Nairobi, IUCN, Eastern Africa Programme, *Issues in Conservation*: 24.

Layton, R. (ed.) **1989a**. *Who Needs the Past? Indigenous values and archaeology.* London: Unwin Hyman; Routledge pbk 1994.

Layton, R. (ed.) **1989b**. *Conflict in the archaeology of Living Traditions.* London: Unwin Hyman; Routledge pbk 1994.

Lebbie, A.R. and **Freudenberger, M.S**. "Sacred grooves in Africa: Forest patches in transition," Chapter 15 in *Forest patches in tropical landscapes,* ed. J. Schelhas and R. Greenberg. Washington: Island Press, 1996.

Lucas, P.H.C 1992. Protected landscapes. Chapman and Hall, London. Xvi + index pp.

Metcalfe, S. 1996. Whose resources are at stake? Community-based conservation and community self-governance. *Rural Extension Bulletin,* 10: 14-18. Reading University, UK.

Misitu News September/December 2002: The newsletter of the Kenya Forest Working Group.

Relief web Kenya, 2003. Siaya District NGO – CBO activity in flood affected regions.

Shilabukha, D. K. 1998. The Role of Indigenous Knowledge in the Management of the mangrove Bio- diversity in Msabweni Division of Kwale District, Kenya. Thesis, Institute of African Studies, University of Nairobi.

Ssembajiwe, W. S. G. 1998. Sacred Forests: An alternative way of Conserving for cultural and biological diversity. Paper Presented at the International Symposium on Natural Sacred Sites – Cultural diversity and Biological diversity "UNESCO, Paris, France. 22 – 25 September 1998.

Taruvinga, P. 2005. *Community Participation and Rock Art Management in Zimbabwe.* Paper presented at the Rock Art Conference, April 10th - 16th 2005, University of Namibia (Unpublished).

APPENDIX I

Questionnaire Guide for the study

This questionnaire is going to help the researcher to document the level of community participation in the management of Ramogi hill sacred forest - Bondo District.

Date of interview_____ Time _____

PART A - Background information of the respondent

Please answer the following questions by either filling in or ticking as will be appropriate.

1. What is your name?_____
2. Gender of the respondent.

   01. Male adult (20 years and above)
   02. Female adult (20 years and above)

3. Where do you live? Circle or tick one of the following.

   01. Oraro village
   02. Usigu village
   03. Jusa village
   04. Other (Specify)_____

4. What is your highest level of formal education completed?

   01. Primary
   02. Secondary
   03. College
   04. University
   05. Others (Specify) _____

5. What is your occupation? Circle or tick one of the following.

   01. Fishing
   02. Farmer
   03. Business
   04. Traditional Doctor
   05. Others (Specify)_____

PART B – General information about Ramogi sacred hill

7. What do you know about Ramogi sacred hill?

_____
_____
_____
_____

8. Of what value is the Ramogi sacred hill to you?

01. Spiritual/ Religious
02. Recreational
03. Medicinal plants
04. Charcoal burning
05. Grazing
06. Fuel wood
07. Others (Specify)_____

9. List at least five important resources found in Ramogi sacred hill.

01. _____
02. _____
03. _____
04. _____
05. _____

10. Who owns these resources?

_____
_____
_____

11. Who uses the resources?

_____
_____
_____

12. Do you think you are responsible for the management of Ramogi sacred hill?

_____
_____
_____

13. What is the reason for the answer above?

_____

14. Who is responsible for the protection of Ramogi sacred hill?

_____
_____

15. Do you think this is a good arrangement for the sustainable management of Ramogi sacred hill?

_____
_____
_____

16. What is the reason for the answer given above?

_____
_____
_____

17. Are you personally involved in the management of the resources Ramogi hill?

_____
_____
_____

18. Elaborate the answer given above.

_____
_____
_____

19. What is the perception of the local community towards the management of Ramogi sacred hill by the National Museums of Kenya (NMK?

_____
_____
_____

20. Are there NGOs/CBOs involved in the Ramogi sacred hill management activities? If so what is their work?

_____
_____
_____

21. How involved are the local community in the management of Ramogi sacred hill?

_____
_____
_____

22. Has the management of the Ramogi Sacred hill involved indigenous, modern or both methods?

_____
_____
_____

23. Elaborate the answer given above.

24. What is the state of the Ramogi sacred hill?

25. What factors are responsible for this state?

26. How can this trend be reversed or curtailed?

27. What can you say about the present state of affairs about Ramogi sacred hill conservation?

28. What areas need improvement and strengthening?

29. How is the relationship between the NMK and the local community over the management of Ramogi sacred hill?

30. Elaborate the answer given above.

Thank you very much for taking your time to answer my questions and your assistance.

Appendix II

Interview guide for the key informants

Name _____

Social position_____

1. Could you give an overview of the resources found in Ramogi sacred hill?

   _____
   _____
   _____

2. Who is responsible for the management of Ramogi sacred hill?

   _____
   _____

3. Is (are) the Institution (s) doing a good job?

   _____
   _____

4. What is the reason for the answer above?

   _____
   _____
   _____
   _____

5. What role should the local community play in the management of Ramogi sacred hill in relation to the conservation efforts being undertaken?

   _____
   _____
   _____

6. There are diverse resource user groups. How would you advice them to develop a sustainable management for Ramogi sacred hill?

   _____
   _____
   _____

7. What should be done to ensure good management and sustainable utilization of resources at the Ramogi sacred hill?

   _____
   _____
   _____

Appendix III

Focus group discussion guide for elders and local experts

1. The types of resources found in Ramogi sacred hill and their uses.
2. Causes of degradation of the site.
3. The role of the local community in the efforts to conserve Ramogi sacred hill.
4. Whether or not Ramogi hill should be managed by the NMK
5. Perceptions of the local community towards the management responsibility by NMK.
6. Taboos on the utilization of Ramogi sacred hill resources.
7. Changes that have occurred, both cultural and ecological in the management of Ramogi sacred hill.
8. Relationship between Ramogi sacred hill and other socio – economic activities (Fishing and farming).
9. What should be done to improve and strengthen the management of Ramogi sacred hill?

Appendix IV

List of resource persons interviewed

Name	Contact address- P.O. Box (Usenge)	Occupation
1. Mr. John Opol	71	Chairman - Ramogi Eco- cultural and Education Center/Farmer
2. Mr. James Alunga Asingo	71	Vice- Chairman - Ramogi Eco- cultural and Education Center/Farmer
3. Mr. James Oyoyo Opudo	71	Secretary - Ramogi Eco- cultural and Education Center/Farmer
4. Mrs. Teresia Alindi	71	Treasurer - Ramogi Eco- cultural and Education Center/Farmer
5. Mrs. Jenipher Adhiambo	71	Ramogi village representative/Farmer
6. Mr. James Odongo	71	Ureje village representative/Farmer
7. Mrs. Ema Ombaka	71	Goma village representative/Farmer
8. Mr. Jared Awour	71	Goma village representative/Farmer
9. Mr. David Orimba	71	Former forester Ramogi hill
10. Mr. Peter Ajigo Ogando	71	Member/Environmental Officer
11. Mrs. Margaret Oduor	71	Community Development Assistant – Usigu Division
12. Mr. William Ogera	71	Chief Central Yimbo
13. Mr. John A. Ojwang'	-	Former District Forest Officer - Bondo
14. Mr. Samuel Obuodia	71	Farmer
15. Mr. Richard Otiende	71	Farmer
16. Mr Bernard Orianga	71	Farmer
17. Mr George Osumba Agalo	71	Farmer
18. Mr.Vitalis Agutu	71	Farmer
19. Mr Jarred Odhiambo	71	Farmer
20. Mrs. Phoebe Okwom	71	Farmer
21. Mrs. Sarah Adhiambo	71	Farmer
22. Mrs. Magarita Nyolowenyi	71	Farmer
23. Mrs. Elida Obor	71	Farmer
24. Mr. Richard Otiende	71	Farmer
25. Mr. Vitalis O. Muga	71	Farmer
26. Mr. Jared Ogara	71	Farmer
27. Mr. Stephene Ogaya	71	Fisherman
28. Mr. Gideon Golo	71	Fisherman
29. Mr. John. Onyango	71	Fisherman
30. Mr. Juma Owidi	71	Fisherman
31. Mr. Owino Tulo	71	Fisherman
32. Mrs.Mary Agoro	71	Fisherman
33. Mr. Enock Omuga	71	Fisherman
34. Mr. Odongo Obade	71	Fisherman
35. Mr. Gombe oriedho	71	Fisherman
36. Mr. Chodhi Ago	71	Fisherman
37. Mr. Alfred Onditi	71	Herbalist
38. Mr. Omollo Kanyariwo	71	Herbalist
39. Mr. Odinga Kodinga	71	Herbalist
40. Mr. Hesbon Obudho	71	Herbalist
41. Mr. Tito Arori	71	Herbalist
42. Mr. Onyango Owino	71	Herbalist
43. Mr. Alfayo Agumba	71	Herbalist

Appendix V

List of participants present during the focus group discussion at Ramogi polytechnic.

Name	Address- (P.O. Box –Usenge)	Occupation
1. Mr. John Opol	71	Chairman - Ramogi Eco- cultural and Education Center
2. Mr. James Alunga Asingo	71	Vice- Chairman - Ramogi Eco- cultural and Education Center
3. Mr. James Oyoyo Opudo	71	Secretary - Ramogi Eco- cultural and Education Center/Farmer
4. Teresia Alindi (Mrs)	71	Treasurer - Ramogi Eco- cultural and Education Center
5. Jenipher Adhiambo (Mrs)	71	Ramogi village representative
6. Mr. James Odongo	71	Ureje village representative
7. Mrs. Ema Ombaka	71	Goma village representative
8. Mr. Jared Awour	71	Goma village representative
9. Mr. David Orimba	71	Former forester Ramogi hill
10. Mr. Peter Ajigo Ogando	71	Member/Environmental Officer
11. Mrs. Margaret Oduor	71	Community Development Assistant – Usigu Division
12. Mr. William Ogera	71	Chief Central Yimbo
13. Mr. John A. Ojwang'	-	Former District Forest Officer - Bondo