Contextualising Ogiek's Indigenous Environmental Education through Oral Literature for Sustainable Conservation of Mau Forest, Kenya.

Ronoh, T.K., Barasa, F.S. and Matheka, R.M.

Abstract

Environmental conservation in many parts of the world presents a daunting task owing to factors like population increase. In Kenya, for example, environmental degradation has occurred at an alarming rate in areas such as the Mau Forest, the home of the majority of the Ogiek people. Traditionally, the Ogiek are hunter-gatherers and have distinctive histories of interaction with the natural environment. But, they have been gradually rendered homeless through appropriation of parts of the Mau Forest for other uses since the colonial periods. Mau Forest is located in the Rift Valley Province and straddles Kericho, Nakuru, Narok and, Bomet districts. Over the years, the Ogiek have inhabited in the Mau Forest with little impact on the environment. This paper critically examines the influence of Ogiek indigenous education on environmental conservation. The study was informed by General Systems Theory and the Cultural Ecology Theory. An ethno-historical approach was employed in the design, instrumentation, data collection, analysis and interpretation. To achieve systematic collection of data, purposive sampling techniques were used. The research sample was drawn from seven sites in the Mau Forest, namely; Teret, Sururu, Nessuit, Mariashoni, Bararget, Tinet and Kiptororo. Fourty-five members of the Ogiek community, mainly cultural consultants, were interviewed for the study. Cultural consultants provided the most complete and representative information about particular aspects of Ogiek life because of their experience and training. Informants were interviewed individually as group interviews were susceptible to biases and distortion of information. The main instruments for data collection were observation and interview schedules. In addition to oral interviews, this study used a variety of documentary sources. The information obtained from the various sources was checked for validity and reliability using triangulation as well as external and internal criticism approaches to data analysis. The results reveal that the Ogiek had two primary methods of education: initiation and Konoito territorial strategy as integrated within their oral literature environmental conservation strategies. It is hoped that the research findings will be useful to policy makers in such fields as education and environmental conservation on the need for the integration of indigenous knowledge systems into modern environmental management strategies.

Introduction

Education is an integral part of life in any society. The social and cultural forces surrounding each individual thus form the basis of indigenous education. Hinzen (1988) observes that during the long ages of Pre-history, human beings survived because they were capable of learning by example and experience to adapt their way of life to their environment throughout succeeding generations.

Indigenous education in its various forms is intimately intertwined with social life. Sifuna (1990) emphasizes that what was taught in traditional societies was related to the social context in which people lived as well as the demands of their particular environment.

Thus, indigenous education had a direct and symbiotic relationship with the environment (Castle, 1966 and Ocitti, 1973, 1974). Indigenous education also responded to social change and was an important catalyst of change. Indigenous education was therefore associated with social development.

Indigenous education takes many forms, depending on the particular historical and cultural background. According to Ishumi (1976) this education is influenced by the prevailing economic, social, religious and political systems. In short, this system of education sustains community development. In support of this, former President of Tanzania, Mwalimu Julius Nyerere, described indigenous education as an integral part of life (Hino, 1996).

The Ogiek also referred to as the Dorobo, form a minority group among the Kalenjin. They constitute an underlying sub-stratum for the Kalenjin and the Maasai people and perhaps the Kikuyu according to Muriuki (1976), Kipkorir and Welbourn (1973). The Ogiek are one of the earliest known inhabitants of East Africa. They are presently among the few survivors of the early inhabitants of East Africa. Unfortunately, they are facing extinction as they are being assimilated by other communities (Sutton, 1976 and Towett, 2004). The Ogiek have been mostly hunter-gatherers who inhabited the forest areas of East Africa. Representatives of this group are today scattered over various parts of Kenya, but the majority of them are to be found in the Mau Forest. Mau Forest, the home of the Ogiek people, is located in the Rift Valley Province and straddles four districts: Kericho, Nakuru, Narok and Bomet.

However, Kratz (2000) notes that the Ogiek, unlike many other hunter- gatherers, gathered little plant food and mostly relied on a diet of meat and honey, supplemented by the trade in grains during the pre-colonial times. She stresses that with abundant rain and rich volcanic soils on the escarpment, few plants produce the large tubers, nuts and meaty fruits that were so important to the hunter-gatherer diet in the drier areas. The Ogiek of Mau Highlands have a history of sustainable interaction with the natural environment (Yeoman, 1979). They are indigenous minority hunting and honey gathering people. Over the years, this community has managed to survive in the Mau Forest without causing significant environmental degradation.

Methodology

Detailed explanations of the relevant research design and instruments that were used to collect data were discussed. Similarly, sample size and sampling procedures as well as data analysis were also addressed.

Research Design

The subject of inquiry was based on the assumption that individuals construct social reality in the form of meanings and interpretations and that the reconstructions tend to be transitory and situational (Cohen, 1993; Gall, 2003). This was the study of a people's representations of their history and hence linked to the study of their oral tradition.

A relevant research design for this study was an ethno-historical design. This is the systematic and objective location, evaluation and synthesis of evidence in order to establish facts and draw conclusions concerning the past events. The study sought to investigate the socio-

cultural aspects of indigenous education of the Mau Ogiek that have been able to engender sustained environmental management of Mau Forest.

An ethno-historical design typically combined two research strategies, the emic (local viewpoint) and the *etic* (scientist-oriented) approach. On the one hand, the emic approach investigated how the local people explained, thought, perceived and categorized their worldview. From this, the researcher identified the rules of behaviour and the meanings attached to them.

On the other hand, while in the field the researcher used the *etic* (scientist- oriented) approach that shifted the focus from the local categories, expressions, explanations and interpretations to those of the ethno-historian. This approach counterchecked the defects of the first approach taking into account that members of a culture are often too involved in what they are doing to interpret their cultures impartially. Operating ethically, the researcher emphasized what was observed and seen to be important to this study. In this way, the researcher tries to bring an objective and comprehensive viewpoint to this study.

Sample Size and Sampling Procedures

The research sample was drawn from seven sites in Mau Highlands: Teret, Sururu, Nessuit, Mariashoni, Bararget, Tinet and Kiptororo. These are the places where the majority of the Mau Ogiek reside (Towett, 2004). To ensure an objective and comprehensive data, the selection of the informants was done using the snowball and purposive sampling techniques of the non-probability sampling strategy. These techniques were advantageous over probability sampling because not everybody in the target population was knowledgeable about specific details and information that the researcher intended to investigate.

Using the snowball and purposive sampling techniques, the researcher identified fourty five elderly Ogiek individuals who provided useful information on specific knowledge that this study sought to investigate (Babbie, 1986 and Gall, 2003). These people were then used as informants to identify others who qualified for inclusion in the study and these, in turn, identified yet others, hence the number kept on snowballing (Dalen, 1979; Cohen, 1994; Gall, 2003). Some of the informants were identified from the Kenya National Archives (KNA) in Nairobi while undertaking collection of archival sources. The others were mentioned in the course of the fieldwork. Most informants were interviewed individually as often group interviews were susceptible to biases and distortions of information.

Those fourty five elderly persons interviewed included men and women among the Ogiek. More specifically, oral interviews focused on obtaining relevant information from the key cultural consultants who by experience and training provided the most complete and useful data about particular aspects of life of their society (Kottak, 2002). Key cultural consultants interviewed included members of specialized groups like religious and ritual experts, herbalists, sponsors and all those who were skilful in the art of traditional rites such as initiation.

Instrumentation

The main instruments that were used to collect the data were an observation schedule and interview schedules. The researcher administered observation and interview schedules for each of the targeted groups; the council of elders, herbalists, sponsors and religious leaders as well as early converts, colonial chiefs and government officials.

The items in the instruments were designed in such a way that they were relevant to each of the group of informants mentioned above and were ultimately useful in achieving the research objectives outlined in this study.

The interview schedule was designed to collect data on establishing whether there was a relationship between Indigenous Education and environmental conservation among the precolonial Ogiek of Mau Forest.

Data Collection Procedure

Data collection approaches included the use of field observations, oral interviews and documentary (primary and secondary) sources. Oral interviews, observations and documentary sources were the main sources for data collection in this study. The data was collected by interviewing individuals, observing events as well as analyzing documentary (primary and secondary) sources.

The researcher conducted fieldwork that addressed specific questions that have been identified to ensure the realization of the set objectives. Hence, the study was approached with a specific problem to investigate and collect the data that took into account fundamental issues such as beliefs, customs, taboos and values that were deemed relevant to the problem.

Being an ethno-historical design, the researcher conducted content analysis of materials in libraries, archival and internet documents as well as oral interviews that were supplemented by observation.

Data Analysis

The critical undertaking in analyzing qualitative research was for the researcher to manage and organize the data. The researcher constructed patterns that emerged from the data and tried to get meaning out of them. Starting with a large set of issues and data, the researcher progressively narrowed them into small and important groups of the key data as acknowledged by earlier scholars and based on the research objectives (Dey, 1993; Bogdan, 1998; Krathwohl, 1998; Kottak, 2002; Gall, 2003). Following Patton's (1990) and Gay & Airasian's (2003) approaches to data and content analysis, the investigator undertook a multistage process of organizing, categorizing, synthesizing, and interpreting the data. Each of these processes were found to be iterative as the researcher cycled through these stages more than once in a continual effort to narrow and get meaning of the emerging themes and categories that formed the organizing frame work in this study. Indeed, Gay and Airasian (2003:229) identify four steps in analyzing qualitative research data, which were ultimately utilized in this study, namely: reading or memoing, describing, classifying and interpreting.

Results and Discussion

The intention of this paper is to explore the relationship between the Ogiek system of indigenous education and environmental conservation as practised in Mau Forest of Kenya. Using this objective as the key to analyse and discuss the results, the study identified three major findings based on the superstructural systems, theories and institutions among the Ogiek. The first finding revealed that it was the dependency on the natural resources and the relationship between the Ogiek and all life within the forest that motivated them to use their indigenous skills and wisdom to protect the environment. Secondly, the paper established that the continued existence of the Ogiek culture was dependent upon the survival of Mau Forest, and hence the ability to live in it, for without it, the Ogiek culture would cease to exist.

Thirdly, the finding of the study revealed that the Ogiek were incapable of retaining their essential characteristics if the ecosystem was eventually destroyed. It was this in-built attitude which enabled the Ogiek to conserve their natural resources without any written legislation.

Clan, Council of Elders and Konoito Territorial Strategy

Indigenous education forms an integral part of the total process of _socialisation' within the Ogiek society by which children and youth acquired acceptable codes of behaviour. The process of socialization was effectively implemented in real-life situations. For instance, in the home, or in the field and during ceremonial occasions, the child was made aware of the relationship which bond the family, clan and his ethnic community with its immediate natural environment.

In order to affect these issues, certain social and cultural mechanisms were applied and designed to regulate the child's behavioural patterns. And, also to initiate one into an acceptable mode of conduct which conformed to the norms of behaviour within the Ogiek Society. Through the prolonged period of socialization and experience with nature, the Ogiek were able to maintain a stable and balanced co-existence with the natural environment. For that reason, various clans regulated the conservation of the forest by ensuring that none of their members felled trees irresponsibly (Tuei, 2006). In fact, indiscriminate felling of immature, mature and sacred trees were prohibited especially those used to serve self ends.

Indeed, authority to use the forest products was sanctioned by the council of elders and only permission was granted for products that were utilized mostly in communal activities such as annual ceremonies, festivities and other related rituals, as well as for purposes of apprenticeship. Such restriction on utilization of the natural products also applied to wild animals within each territorial unit. To enforce this, each *Konoito* was assigned to a specific clan to look after it. The clan was thus accountable for the proper use of the trees, plants and animals thereof. Clans that did not observe such restrictions were forced to surrender their *konoito* and errant members were punished so as to discourage them from destroying the environment. For instance, children were denied food while others were severely beaten. Serial offenders (Rop, 2006; Maina, 2006) were forced to carry heavy logs over long distances under supervision by the parents, some elders and clan members. In conjunction to the significant role played by the council of elders, parents and other elderly persons in society, they were bestowed with the sole responsibility as being society's custodians and

models of good behaviour, as well as embodiments of the instrumental virtues and values related to environmental conservation. In essence, they provided examples of how values attached to conservation of natural resources were integrated into daily undertakings.

Ogiek's broad curriculum entailed adopting members of the younger generations (children) to their physical environment and teaching them how to control and use it. Furthermore, it formed the basis of explaining to the youth that their own future and that of the community depended on the understanding and perpetuation of the institutions dealing with issues of the biosphere. All these issues find acceptance in the conceptual understanding that Ogiek socialization process took a vertical dimension whereby the elders instructed the young to adopt the already established social ecological norms without questioning hence maintaining their status quo. In fact, children had absolute freedom to attend adult activities without the consent of the parents and elders. Though, acquisition of education was strictly adult centred. Moreover, Ogiek indigenous education emphasized preservation of the cultural heritage and nature, since their education ultimately grew out of their immediate heritage and nature based on realistic and situational learning as predetermined by their physical environment.

Therefore, children had to learn about weather, landscape, animals and insect life. Precisely, they learnt which kinds of grasses or trees were suitable for which purposes and what had to be done on them to sustainably conserve the same for future generations. Imperatively, they were also taught how to care for the animals within their territorial unit, by joining with the elders while performing such responsibilities. Participation and observation were the fundamental principles guiding the learning process of the Ogiek's forest education. The exploitation of the natural resources had clear checks and balances thus allowing indigenous environmental sustainability (Chelule, 2006). In pursuance of the normative (acceptable standards and beliefs governing correct behaviour) and expressive (unity and consensus) goals, Ogiek indigenous education fostered a strong communal sense and responsibility in control and utilization of the physical environment. Ideally, individualistic tendencies were allowed to grow only under the umbrella of society. In that sense, youths were trained on their roles in all-embracing network of kinship relationship and what their rights and obligations were within their immediate environment.

The Ogiek had a system of managing the forests through their lineage based on their management techniques (Sigei, 2006) which enabled the community to use it in a sustainable way without degrading the environment. The Ogiek, through their customary tenure system, have managed their forests communally. They allocated blocks of forests to various clans. The forest areas or territories (Konoituek) were first occupied by the clan, which in turn divided it according to the family tree (Blackburn, 1976, 1986). Each family was then responsible for the animals and plants in the allocated land. It was this environmental conservational strategy that ensured that no one hunted or cut any tree without permission from the family responsible for the particular forest land (Sangwea, 2006).

According to Ogiek customary law, hunting, gathering and tree felling must first meet the standard criteria explained in the earlier discussion before it was sanctioned by the council of elders. The natural resources of the Mau Forest are essential to the lives of the Ogiek. Water resources were placed under the control of the elders. However, because of cross-cutting permanent streams which run parallel to each other draining the Mau Forest, this enabled animals and humans to remain in the areas for long periods. Between the streams are strips of land, sloping down the Mau Forest from a central ridge, which extends upwards through all

the forest zones (Yeoman, 1979). According to Blackburn (1974) each zone was owned by a different local lineage for easier environmental management strategy.

More significantly, Ogiek parents did their best to provide children and youths with an essentially practical type of education. As the foregoing analysis shows, the nature and content of this practical education was largely emanated from the immediate environment and was distinctively gender –centred. A male child's education was greatly determined by his father's occupation while that of a girl was associated with the mother's feminine roles. Fundamentally, though Ogiek children were instructed and guided by their parents, there was a strong emphasis in the learning process through participant observation.

Indeed, the Ogiek land tenure system aimed at defusing feuds resulting from conflict over hunting and bee-keeping rights. Essentially, it was the responsibility of the elders to ensure that the resources were appropriately utilized for the benefit of the community and the methods for preserving and conserving the natural environment were passed on from generation to generation (Obare & Wagnwe, 1998; Nomi, 2004; Sigei, 2006). Indeed, their guidance affirmed the integrative ethical and moral responsibility of each member of the community to the physical and spiritual laws of nature. It was clearly understood that the existence of the community depended on their continued preservation of their habitat.

Educative Proverbs, Songs, Stories and Dance as Ecological Learning Strategies

Therefore, each individual had a duty to conserve the environment for their own survival. Lessons on environmental conservation were taught by parents and elders to the rest of the community through proverbs, legends and folktales. Indeed, proverbs were used widely in ordinary conversation (Chesaina, 1991) as a way of enhancing informal instructions by Ogiek elders. One commonly used proverb that has clear emphasis on environmental conservation was *onion ak kwoni, ko Chepiswet* (Sangwea, 2006) meaning Chepswet, the bird associated with rain, is here and there. This called for the need to preserve it. A second proverbs, also used as a folktale, was, *Konyun Kotinye Temenik mut*, (Sang, 2006; Kirui, 2006) meaning my house has five branches. This emphasized the importance of branches to trees and stressed on the attainment of numeracy skills by the learners. Another proverb illustrating the importance of conserving trees was *Makiyumen Sosur*, *Yemoeniyeb* (Chelule, O.I. 31.5.2006; Tuei, 2006). This wise sayings stressed that one should not shelter under a *Sasuriet* tree when it is raining only for them to start cutting it after the rain. These proverbs were used by adults to convey lessons, warnings and advice to the children on the need to conserve the environment by using the resources in it wisely.

The Ogiek attached great importance to proverbs, legends and folktales as the condensed wisdom of their ancestors that had great impact on the mind of individuals than the ordinary words. Children were therefore instructed to conform to the mores, customs and standards of behaviour inherent in these teachings by learning the minute details of the folklore. Disobedience was however followed by various forms of punishment as illustrated above. Legends as understood as tales that were fabricated to account for real events that took place as vividly illustrated in Ogiek sayings that, *ngwan muma sirgiriet* (Sangwea, 2006) meaning you should not killed donkeys as the consequences are grave; bad omens) would befallen on the victim. This clearly became a good reinforcing strategy to preservation of animals generally. We would summed up that learning through oral literature (Proverbs, legends,

folktales etc) by the Ogiek entailed constant correcting and warnings to the children of the vices that were forbidden in their broad based curriculum of the physical environment. Indeed, they were constantly reminded to uphold proper management and utilization of the natural resources within their territorial jurisdiction.

The Ogiek had no centralised institutions like chieftaincies or political leaders (Ogot, 1978) such as headmen but rather relied heavily on lineage councils to handle social and ecological issues (Bargochut, 2006). It was within their kinship structure that one's rights and duties were defined and articulated. Based on the foregoing discussion, it is imperative to acknowledge that the youth were advised to create a strong sense of unity and to maintain it. This maintenance of the status quo was achieved through clan observance of the taboos, rituals, ceremonies, ownership of land, communal responsibility and mutual help of the clan membership. These issues were wholistically approached and articulated in relation to the social and natural environment. In this way, the young were brought up within the forest environment. They were made up to become well adjusted persons so as to acquire their appropriate skills for their sex roles to control and exploit the natural resources within it.

The Ogiek were rich in ecological knowledge with a sophisticated and widely respected intangible heritage, consisting of dance, music, myths, the culture of forest spirits as well as indigenous knowledge of biodiversity, medicine and sustainable exploitations of the natural resources. It was also through their elaborate indigenous institutions that enabled the Ogiek to co-exist peacefully with the natural environment. Hence, they had well organized clan leadership of council of elders whose mandate was to deal with the community's welfare, land and security (Towett, 2004).

As already discussed in the foregoing analysis of Ogiek's educational curriculum, it should also be stressed that the development of their culture has been largely centred on transmission of knowledge about biodiversity and ecosystem capacity from generations to generations. This was done through the medium of oral literature (proverbs, songs, stories, dance) and ceremonies (initiation) as some of the learning methods and processes of education. More specifically, they clearly demonstrated these endeavours as embodied in their songs and speeches that were made with specific reference to conservation of their environment as reflected (Bisimba, 2006; Chebunye, 2006 and Tonui, 2006) in the following instances:

- i) Kemenye Kipleleon ole yotu moek sait aeng meaning Ogiek adored the beautiful scenery of Kipleleon which was endowed with fertile land and plenty of pasture as a result of being a forested area. It was also a source of water for their wild and domestic animals hence the need to jealously guard it of over exploitation.
- ii) Ngungunyandenyon nemi Kuto Kile boisiek mat obagach, demonstrated the fertility of expansive Mau Forest and promised to protect it under all cost from being degraded by aggressors of other communities and hence the need for constant check to ensure conservation of natural resources thereof.
- iii) Kipluguny en tugat kot kout Sigiriet en Likia koboru ngorsetnebo mengotet this vividly explained that their pattern and settlement would be complete with the occupation of Likia indigenous Forest in Eastern Mau Forest as it was regarded as the central abode for them by their ancestors. They attached greater significance to it because of the mythological understanding of it to be sacred and where various rituals

were performed, hence the need to have it preserved as an embodiment of their cultural heritage.

In these selected episodes and myths, it was clear that the Ogiek demonstrated as knowledgeable environmentalists as earlier deduced by Majtenyi (2001) and had adequately developed refined methods and an onset determination to preserve and conserve Mau Forest ecosystem. In this way, their ecological knowledge systems were passed down from generation to generation by the elders of the community (Obare & Wagnwe, 1998; Ronoh, 2006). At the lineage level, children and youths learnt what was of utility to the society as concern the management of their ecosystem in a balanced and integrated way.

However, at the lineage level, all kinds of subjects were discussed by the council of elders particularly those touching on the regulation of social and ecological management system. At the lineage council, the elders lead the young in inculcating indigenous knowledge systems with regards to ecological management of the environment. In essence, the youths were taught about their natural environment and basically how they could utilize their surroundings for their survival (Tuei, 2006; Langat, 2006; Sangwea, 2006). For instance, they learnt which kinds of grasses were suitable for which purpose and the work that had to be done to obtain food by joining with elders in this work. Based on the relationship between survival and environment, the Ogiek children and youths learnt through a difficult forest environment' and thus life was a real struggle against these difficult aspects of the environment such as learning the tactics and techniques of escape when attacked by dangerous animals, poisonous snakes or fighting for safety from fierce bees. As a result, certain emotional attitudes and sentiments were developed around them. Therefore, children had to be taught an integrated and broad based curriculum on all these important aspects of the environment in order to overcome and exploit them, and taking into account their normative and moralist view of sustainable utilization of these natural resources.

Most of the songs (as cited thereof) were geared towards perpetuation of their customs of sharing to which young people were taught to conform with. They were also inculcated values concerning their intricate relationship both to the social and the natural environment. In this particular respect, Ogiek cosmology promoted values that supported conservation and discouraged values and ethics incompatible with sustainable ways of life. Knowledge was imparted through strict instruction of the young by the old, through proverbs, songs and sayings intended to teach about environmental conservation.

In these songs and proverbs already discussed, some emphasis could be inferred on the need to conserve the young trees as they were the most important in the forest. This type of education ensured that actions needed for the survival and well-being of their society were taught (what was strictly of utility to them) and passed down from one generation to the next, thus maintaining the equilibrium and status quo of the society as far as nature was concerned. For instance, as a sign of respect and identification, each family names their portion of land acknowledging their responsibility to the occupancy and usage of the property. This also explained the central role that land played in the life of the Ogiek. In this regard, each individual was taught the importance of preservation of natural resources and they individually monitored the progression of environmental conservation strategy as they acted as demarcation devices that regulate their territorial settlement and forest conservation mechanisms.

Therefore, regulations on the management of environmental resources were followed to the later since the punishment meted on an individual who degraded the environment outweighed its benefits. It was revealed by various cultural consultants interviewed, that the punishment of those found destroying the natural habitat for whatever purpose outweighs the reward they would ultimately get in return. (Maina, 2006; Mosonik, 2006; Sirgatet, 2006). And, because of such a penalty, many individuals saw that there was no need to destroy the environment and thus they resorted to using it in a more appropriate and sustainable way to attain their basic needs as recommended thereof in their unwritten constitution (Oduor, 2004; Sang, 2006). Therefore, the youths were taught to be more pragmatic in their approach and utilisation of environmental resources at their disposal.

In the context of the Ogiek community, freedom of the individual was purely subordinated to the interests of the lineage or the community and hence co-operation in the management of environmental resources was preferred to competition. It was such collective responsibility and interrelated bonding that greatly assisted in environmental conservation of its rich biodiversity of Mau Forest. It was that co-operative spirit of love and sympathy for fellow human beings (Ocitti, 1990, 1994) that was emphasized as cardinal principles as reflected in all aspects of human relations and most activities within the Ogiek lineage system. This normative philosophy of education promoted to a greater extent a clearly defined integrative strategy in the management of environmental resources within Mau Forest (Chumo, 2006). Basing on this strategy and deducing from the foregoing analysis, it was very clear that individuals, parents and council of elders contribute to decisions that affected them and played an indispensable part in creating a secure and sustainable society. It was through, Ogiek's cosmology that they cultivated a strong sense of individual and collective responsibility, generosity and justice among the people, and between people and the environment.

Taking into cognizance the views and arguments postulated in this discussion, it would be clear to deductively emphasize that the Ogiek indigenous education was based on the core principle of an intuitively inseparable and an indepth conceptual understanding of the link and closer relationship between the people, mode of subsistence and the environment. Therefore, for environmental conservation to be achievable, every individual in the society was to have a sound philosophy that was based on an unwritten constitution framework on the need to maintain a stable, secure and sustainable environment for the good of the Ogiek community in general. Such a framework was integrated and modelled on the broad-based curriculum of education offered to Ogiek children and the youth. The main objective of such environmental education was aimed at sustainability, adaptation and continuosly redirection in response to experience and emerging trends and needs in the society. Indeed, Ogiek precolonial society's goals, contents, and methods of education were geared to help the learners to realize their full potentials so as to be able to cope with their local, social, and physical environment as well as their metaphysical understanding of the universe.

Conclusion

The purpose of this paper was to explore the relationship between the Ogiek system of indigenous education and environmental conservation as practised in Mau Forest of Kenya. Using this objective as the key to analyse and discuss the results, the paper identified three major findings based on the Ogiek's socio-economic superstructural systems, theories and institutions as they relate to their natural environment during the precolonial times. The first

finding revealed that it was the dependency on the natural resources and the relationship between the Ogiek and all life within the forest that motivated them to use their indigenous skills and wisdom to protect the environment. Secondly, the study established that the continued existence of the Ogiek culture was dependent upon the survival of Mau Forest, and hence the ability to live in it, for without it, the Ogiek culture would cease to exist.

Thirdly, the finding of the study revealed that the Ogiek were incapable of retaining their essential characteristics if the ecosystem was eventually destroyed. It was this in-built attitude which enabled the Ogiek to conserve their natural resources without any written legislation.

In essence, the existence of the indigenous Mau Forest ecosystem was inextricably linked with the survival of the community. Indeed, the transmission of indigenous education among the Ogiek was a complex and fundamental process embedded within their insights socioecological, economic, political, cultural and religious structures and institutions. It was this characteristic rather than the inherent complexity of any biological and physical environment that determined the intricacy and methods of the transmission process and the complexity of their curriculum.

The Ogiek, commonly referred to as the _caretakers' of the Mau Forest have existed for centuries living in a symbiotic and peaceful relation with nature. Their deeper understanding of their relationship with the environment, have helped the Ogiek to cultivate a variety of methods as elaborated and articulated in the various socio-political economic institutions and religious endeavours discussed thereof, in order to conserve and preserve the Mau Forest's natural resources. By so doing, they became very successful protectors of the forest. In fact, the study findings revealed that it was the dependency on the natural resources and the relationship between the Ogiek and all life within the forest that motivated them to use their indigenous skills and wisdom to protect the environment.

Essentially, the Mau Forest's natural resources played an important role in Ogiek culture that rendered the urgent need for their conservation extremely imperative. The unique relationship with the land and its environment in totality was necessary for the cultural and spiritual survival of these people. The vitality of the biodiversity and the ecological system of the Mau Forest was virtually central to the traditions, spiritual growth and economic livelihood of the Ogiek. Therefore, the study findings revealed that the continued existence of the indigenous Ogiek was dependent upon the survival of Mau Forest, and hence the ability to live in it, for without it, the Ogiek would cease to exist. The Ogiek perfected a cultural and spiritual tradition that closely integrated their culture and nature.

The Ogiek were uniquely specialized people and were intimately related to Mau Forest ecosystem in many respects. In cognizance to this fact, the findings of the study revealed that the Ogiek were incapable of retaining their essential characteristics, if that ecosystem was eventually destroyed. This was in tandem with the fact that the Ogiek indigenous education put much emphasis on the normative and expressive goals where by their educational theory hold the view that each individual's relationship affects and is affected by that of the others and subsequently that of its immediate ecological settings.

The Ogiek managed the environment and its resources thereof quite successful for a long time through well-designed, productive and sustainable indigenous environmental conservation strategies that had evolved gradually through well defined socio-ecological, economic and political superstructures of this community. However, there could be little doubt that these strategies emanated from the people who had valued and concerned for their environment and its related ecosystem. Such an attitude enabled the Ogiek to conserve their natural resources without any written legislation.

References

Babbie, E. (1996) The Practice of Social Research, Belmont. California: Wadworth Publishing Company.

Bargochut, S. (2006) Oral Interview, Kapchorwa, Tinet, 25th April 2006.

Barkosiach, S. (2006) Oral Interview, Cheptuech, Olenguruone, 24th April 2006.

Bisimba J. (2006). Oral Interview, Tuiyotich, Mauche, 19th February 2006.

Blackburn, R. (1971). —Honey in Okiek Personality, Culture and Society", Ph.D. Dissertation, Michigan State University.

Blackburn, R. (1976). —The Okiek", B.A. Ogot (ed.), *Kenya Before 1900*, Nairobi: East African Publishing House.

Blackburn, R. (1986). —Okiek Resource Tenure and Territoriality as Mechanisms for Social Control and Allocation of Resources, *Sprache And Ceschichte in Afrika*, 7,1:61-82.

Blackburn, R. H (1974) - The Okiek and their History", Azania ,9, 150-153.

Bogdan, R. C, & Bikien, S. K. (1998). *Qualitative Research for Education: An Introduction to Theory and Methods*, Needham Heights, M.A: Allyn & Bacon.

Brown, G.N. & Hiskett, M. (1975) Conflict and Harmony in Education in Tropical Africa, London: George Allen & Urwin

Castle, E.B. (1966). Growing up in East Africa. Nairobi: OUP.

Chebunye, J. (2006). Oral Interview. Ewaat, Emaisiek (Mache), 14th June 2006.

Chelule, K. (2006). Oral Interview, Saino, Kiptororo. 2nd June 2006.

Chesaina, C. (1991). Oral Literature of the Kalenjin, Nairobi: Heinemann Kenya Ltd.

Chesang, I.C. (1973). — A Analysis of the Superstructure of the Semi-Pastoral Keiyo", B.A. Dissertation, University of Dar es Salaam

Chumo, C.A. (2006). Oral Interview, Likia, Mau-Narok, 5th March 2006.

Cohen, L. et al (1994). Research Methods in Education, London & New York: Routledge.

Dalen, B.V. (1979). Understanding Educational Research: An Introduction, New York: McGraw-Hill, Inc.

Dey, 1. (1993). Qualitative Data Analysis, New York: Routledge.

Diallo, G. (2003). Indigenous Learning Forms in West Africa: The Case of Mauritania, London: UNESCO.

Gall, M.D., et al. (2003) Educational Research: An Introduction, New York: Pearson Education

Gay, L.R. & Airasian, P. (2003) *Educational Research: Competencies for Analysis and Applications*, New Jersey, Ohio: Macmillan Publishing Company.

Hino, A. & Camozzi, A. (1996) — Ault Environmental Education: A Handbook on the Context and Methods", Journal of Adult Education and Development, IIZ/DVV, 47: 21-43

Hinzen, H. (1988). —Western Schooling, Traditional Education and Alternative Development in Sierra Leone", *Adult Education and Development*, 30: 379 392

Hobley, C.W. (1953). —The Dorobo of the North Tinderet Forest (Kipkurerek) in the Southern Nilo-Hamites", Ethnographic Survey of Africa, 7: 15-26

Huntingford, G.W.B. (1955). The Nandi Culture, London, OUP.

Ishumi, G.M. (1976). Education and Development: Theory and Practice, Nairobi: EALB.

Kesteeren, G.V. (2005). Global Response: Environmental Action and Education, Amsterdam, Indigo Magazine, accessed from http://www.nicv. net/engel/mau/20forests.htm.

Kipkorir, B.E. & P. Welbourn (1979) *The Marakwet of Kenya: a Preliminary Study*, Nairobi: East Africa Literature Bureau

Kirui, S.K. (2006). Oral Interview, Marishoini, Elburgon, 6th June 2006.

Klamp, D. & Kratz, C. (1993) — Aesthetic, Expertise and Ethinicity: Okiek and Maasai Perspectives on Personal Ornament", Being Maasai. Ethnicity and Identity in East Africa (ed.). Thomas Spear & Richard Walter (eds), London and Nairobi: Oxford University Press, 115-158.

Koskey, M.K. A. (2006). Oral Interview, Dikirr, Trans Mara, 6th March 2006.

Kottak, C.P. (2002). Anthropology: The Exploration of Human Diversity, (9th ed), New York: McGraw-Hill Higher Education.

Krathwohl, D.R. (1998). Methods of Education and Social Science Research, New York: Longmans.

Kratz, C. (1990). —Sexual Solidarity and the Secrets of Sight and Sound: Shifting Gender Relations and their Ceremonial Constitution", *Journal of Ritual Studies*, 6: 2, 449-451.

Kratz, C. (1991). -Amusement and Absolution: Transforming Narratives During Confession of Social Debts", *American Anthropologist*, 93:4, 826-851.

Kratz, C. (1995). – Okiek", Encyclopedia of World Cultures: African and the Middle East, John Middleton & A. Rassam (ed.). Boston: Macmillan, 9,2:1-10.

Kratz, C. (1999). —Okiek of Kenya, Foraging Peoples", *Encyclopedia of Contemporary Hunter-Gatherers*, Richard Lee & Richard Daly (Ed.), Cambridge: Cambridge University Press, 220-224

Kratz, C. (2000) —Gender, Ethnicity and Social Aesthetics in Maasai and Okiek Beadwork", *Rethinking Pastoralism in Africa: Gender, Culture and the Myth of the Patriarchal Pastoralist*, (ed.) Dorothy Hodgson. Oxford: James Currey Publisher, 43-71

Kratz, Corine A. (1986) — Ethinic Interaction, Economic Diversification and Languages Use: A Report on Research with Kaplelach and Okiek", *Sprache and Geshiche in Africa*, 7, 189-226.

Kratz, Corine A. (1989). —Okiek Potters and their Wares", *Kenyan Posts and Potters*. L. Barbuour and S. Wandibba (ed). Nairobi: Oxford University Press, 24-60.

Kratz, Corine A. (2002). The Ones that are Wanted: Communication and the Politics of Representation in a Photographic Exhibition. Berkeley: University of California Press.

Kratz, Corinne A. (2001)—Conversations and Lives". *African Words, African Voices: Critical Practices in Oral History*" by Luise White, Stephen Miescher, and David William Cohen (ed)., Bloomington: Indiana University Press, 127-161.

Langat, P. (2006). Oral Interview, Kiptagich, Olenguruone, 15th May 2006.

Lesan, C. (2006). Oral Interview, Cheboyo, Bomet, 6th July, 2006.

Majtenyi, C. (2001). Even the Forests are Being Privatized. New African. Retrieved October 20, 2004, from http://gateway.proquest.com/opennurl;url.

Marindany, A.N. (2006). Oral Interview, Seger, Olenguruone, 24th April 2006.

Mbiti, J.S. (1990). Africa Religions and Philosophy (2nd edition) Portsmouth: NH: Heinemann.

Mosonik, M.D.(2006). Oral Interview, Kapchumbci, Sotik, 27th June 2006.

Muchemi, J. & N. Crawhall (2008). —Education for Sustainable Development: Safeguarding Traditional Ecological Knowledge (TEK) through Participation Natural-Cultural Landscape Mapping in Kenya", Report to UNESCO, ERMIS Africa & IPACC.

Muriuki, G. (1976). A History of the Kikuyu, 1500-1900, Nairobi: OUP.

Mwanzi, H.A. (1977). History of the Kipsigis, Nairobi. EALB

Ngetich, I. (2006). Oral Interview, Belbur, Njoro, 6thMarch 2006

Nomi, R. (2004). The Ogiek: The Guardians of the Forest, Retrieved on January 16, 2007, from http://www.ogiek.org/indepth/forest-guardians.htm.

Ntoror, K.M. (2006). Oral Interview, Emitik, Olengunione, 12th April 2006.

Obare, L. & Wangwe, J.B (1998,). Underlying Causes of Deforestation and Forest Degradation in Kenya. World Rainforest Movement. Retrieved on October 21, 2004, from www.wrm.org.uydeforestation/ Africa /Kenya/html.

Ocitti, J.P. (1973). African Indigenous Education as Practised by the Acholi of Uganda, Nairobi: Kenya Literature Bureau.

Ocitti, J.P. (1990). Indigenous Education for Today: The Necessity of the Useless", Adult Education and Development, 35, 53-64.

Ocitti, J.P. (1994). —An Introduction to Indigenous Education in East Africa: A Study in Supplement", *Journal of Adult Education & Development*, Bonn, 42, 24-33.

Oduor, A.J. (2004) —Following God's Constitution: the Gender Dimensions in the Ogiek Claim to Mau Forest Complex", M.A. Dissertation, Southern and Eastern Africa, Regional Centre for Women's Law, University of Zimbabwe.

Ogot, B.A. (1978), -The Kalenjin," Kenya Before 1900: Eight Regional Studies, Nairobi, EAPH, 63-84

Okoko, S. (2003) Mau Forest on the Spotlight Kenyans Must be Told the Truth, *Daily Nation*, November, 16, 6:3.

Ottenberg, P.et al (1960) Cultures and Societies of Africa, New York: OUP.

Patton, M.Q. (1990). Qualitative Evaluation and Research Methods, London: Sage Publications.

Rambaldi, G.J.et al (2007) Through the Eyes of Hunter- gatherers: Participation 3D Modelling among Ogiek Indigenous Peoples. New York: Information Development Model.

Rogony, J. (2006). Oral Interview, Tinet, Kiptororo, 7th June 2006.

Ronoh, A.A. (2006). Oral Interview, Oloonamuka, Narok, 12th April 2006.

Ronoh, T.K. (2000). — History of Colonial Education Among the Kipsigis of Kenya, Circa 1895-1963", M.A. Thesis, Egerton University

Ronoh, T.K. et al (2006). Critical Issues in African Indigenous Education as Practised among Kipsigis Precolonial Society of Kenya, *JEDHURE*, *Journal of Faculty of Education and Community Studies*, Egerton University, 4:1, 55-85.

Rop, A.K., Samuel, S. (2006). Oral Interview, Mau Narok, 1st March 2006.

Sang, J. K. (2002) — The Ogiek Land Question". Paper Submitted at Indigenous Rights in the Commonwealth Project, Africa Regional Expert Meeting, Cape Town, South Africa. 22-24th July

Sang, R. (2005) Oral Interview, Ogiek Welfare Council's Office, Kwanza House, Nakuru 25th May 2005.

Sang, S. (2006). Oral Interview, Ewaat, Mauche, 27th January 2006.

Sangwea, K. (2006). Oral Interview, Sururu, Mau-Narok, 10th February 2006.

Sifuna, D.N. (1990). Development of Education in Africa: The Kenyan Experience, Nairobi: Initiatives Publishers.

Sigei, K. (2006). Oral Interview, Kirenget, Molo, 31st May 2006.

Sirgatet, A. (2006). Oral Interview, Tinet, Molo, 27th July 2006.

Tonui, K. (2006). Oral Interview, Ndeffo, Mauche, 16th February 2006.

Torongei, K., Chemorta, A. (2006). Oral Interview, Sururu, Mauche, 2nd January 2006.

Towett, K. (2000). A Statement by the Ogiek People National Assembly on the Mau Forest Complex. Statement presented to OPNA, Nakuru, Kenya. Retrieved on October 19, 2004 from http://www. Ogiek.org/indepthlopna 2002 htm

Towett, J.K. (2004). Ogiek Land Cases and Historical Injustices, 1902-2004, Nairobi: Ogiek Welfare Council.

Tuei, S. (2006). Oral Interview, Saino, Kiptororo, 30th May 2006.

Wass, P. (ed) (1995). Kenya Indigenous Forests; Status, Management, and Conservation, Gland, Switzerland and Cambridge: IUCN.