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TOWARDS SUSTAINABLE DEVELOPMENT OF SACRED SITES ON THE LANDSCAPES OF THE LAKE VICTORIA BASIN(LVB) OF EAST AFRICA

Barack O Owuor¹, S Kilonzo¹, F Odoic¹, J Asimwe³ & M Ocaido²

ZHANG San¹, LI Si¹

Chinese Society for Environmental Sciences, Beijing, P. R. China, 100082
{san.zhang, si.li}@chinalakes.org

Abstract: Sacred sites in the Lake Victoria Basin (LVB) are repositories of community cultural belief artefacts replete with folklore and rich biodiversity threatened with extinction. These resources can be developed as "Exotic products" in an ecotourism package. There are hardly any community conservation efforts for protecting and conserving sacred sites yet they constitute the only sources of community treasured plant and animal species. The major objective of the study was to generate information for conservation, sustainable utilization and management of sacred sites in the LVB. The study reviewed secondary data and used participatory methods as well as field and on-station experiments.

This research apart from documenting sacredness also inventoried biodiversity of sacred habitats, and sought paths for sustainable development. Sensitization, training in asset management, plant propagation and improved resource harvesting are needed. Value addition with eco-tourism including nature trails, documentation of artefacts, folklore and development of 'indigenous exotic cuisines' using indigenous vegetables, fruits and other native recipes are suggested. Further interventions may include informal education for capacity building in communities and integration of informal education in school curriculum.

Keywords: Sacred sites, biodiversity conservation, cultural artefacts, folklore, indigenous cuisines, ecotourism

1 Introduction

Although the lowlands of the Lake Victoria region where sacred habitats are found, are under catastrophic extent of degradation brought about by indiscriminate bush and vegetation clearance for agriculture; over-extraction of fuelwood, medicine, fruits, craft and building materials [1,13]. There are hardly any community conservation efforts aimed at protecting and conserving these sacred bush fallows. Regrettably poverty and inappropriate conservation policies prevail [2,17]. Yet these remnant sacred habitats constitute the only sources of community treasured plant and animal species and related natural products including vital food supplements, potentially high value fruits and herbal medicinal plants amongst other equally important products [6,8].

¹Maseno University, P.O Box 333, Maseno, Kenya,

²Makerere University, P.O Box 7062 Kampala, Uganda, ³Mbarara University, P.O Box 1410

Mbarara, Uganda

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This research apart from documenting sacredness also assessed the biodiversity of sacred habitats, and other important habitat management attributes.

It is also envisaged that adding value to these habitats through activities like introduction of eco-tourism, nature trails and performing art could cause reversals in the poverty curve in this region.

The major objective of the study was therefore to generate information that will enhance community conservation, sustainable utilization and management of sacred sites in the LVB

2 Methodology

The study was initiated with a review of secondary data. This was followed with surveys, done with the aid of participatory methods to select suitable sites for project implementation. In Kenya, 7 sites, namely Got Ramogi, Kit Mikayi, Oluoch Rakuon, Kanyibola, Gembe, Rusinga and Thim Lich Ohinga were evaluated while in Uganda, nine sites including: Ssezibwa falls in Mukono district, Naggallabi Budo coronation site in Wakiso district; Kateroko Prison ditch, Budo Wakiso district; Lusiti Sacred site at the shores of Lake Victoria, Wakiso district, Ziika forest Wakiso district, Kakoola at the land site of Lake Victoria, Wakiso district; Sseguku ewa Mayanja, Wakiso district, Malumbic pits at Tanda Hill, Mityana district and Kigulu Hill at Iganga district. (Fig 1)

2.1 Sacred artefact documentation

Participatory appraisal methods were used for obtaining socio-cultural information. Semi-structured interviews were held with key informants in focus group discussions aided by a checklist to elicit information on origins, meanings and functions of sacred groves/sites, symbols of sacredness embedded in the sacred sites, forms of sacredness, objects of sacredness, cultural activities that take place at the sacred

sites and their significance to conserving these sites and contemporary community perceptions of the sacred sites and their sacredness. Photographs of artefacts at sacred sites were taken.

2.2 Propagation Experiments

Community priority and high premium species identified facing eminent threat of extinction or that have suffered serious genetic erosion were identified through preference ranking [7,16] and propagated either through seedlings or vegetative propagation via rooting of cuttings and specific conditions for achieving this with various species were tested [11,19,22]. Ripe seed were collected in polyethylene bags and handled according to the needs of the species to enable them retain viability for planting [4,16].

3 Results and Discussion

Fig 1 presents the location of study, its situation in Africa and specifically in the East African countries of Kenya and Uganda

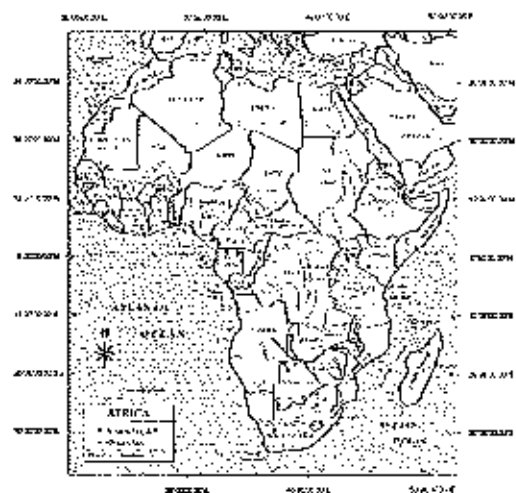
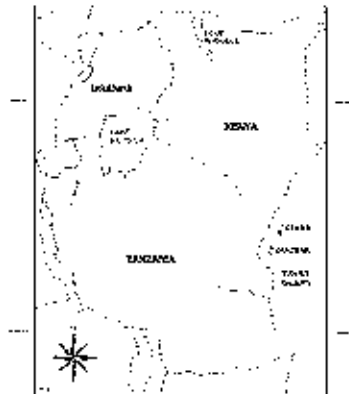


Fig1 Political map of Africa: not to scale



Situation of Lake Victoria in E. Africa



Location of Sacred sites and artefacts

3.1 Sacred Sites for Sustainable Development

Access to Sacred sites is denied through taboos and totemic hindrances. A rich diversity of animal and plant species conserved in sacred sites contrast dramatically with the degraded, denuded surrounding landscape. Previous and present results indicate that both Ugandan and Kenyan communities appreciate the existence of sacred sites. The merits were listed (Table 1). It was observed that 40% of the sacred sites had lost their sacredness, yet if the sacredness is lost, for how long can they be sustained? Any artefact held as of a religious concern to the community remains revered only for its supernatural

relevance. To regain cultural heritage, it is mandatory to keep a balance of the indigenous culture with modernity [6]. Fortunately many recently evolved indigenous African Christian religious groups find their faith only meaningful if Christianity is laced with their heritage and hence regularly use these sacred sites for pilgrimage and for meditation complete with offerings and libation (Fig 1)



A ritual pot; see candle wax libations

We cannot replace Christianity with African traditional religion (ATR) but we can indeed facilitate enculturation.

Tab.1 Use of resources from sacred sites in Kenya & Uganda

Use	% Resp onse	% ranking use of resources from sites			Mean score
		Rare ly=1	Moder ately =2	Com monly =3	
Medicines	80	0	40	40	2±0.3
Firewood	59	0	13	40	1.7±0.4
Crafts	13	0	13	0	0.3±0.2
Rituals	20	20	0	0	0.2±0.1
Fruits	66	0	20	46	1.8±0.4
Building materials	73	0	73	0	1.5±0.2
Grazing pasture	72	0	26	46	1.9±0.3

3.2 Sacred Sites for Eco-Tourism

Economic challenges in Most Third World countries are the reasons behind the depletion of the sacred sites. The need to derive economic utility from these sites including building stones, timber, medicine, fuel, food, animal feeds, among others (Table 1) encourage misuse of the natural resources that conserves plant animal species as well as water sources [6]. This leads to a cycle of extinction facilitating unsustainability. The indigenous vegetables and fruits are part of community recipes and cuisines that are exotic to foreign tourist groups and can enhance the ecotourism package at these sites. It is in this regard that the eco-tourism sector is believed to harbour an innate potential that would not only lead to conservation of these sites, but also involve the local communities for both resource

management, and economic benefits.

It was found in this study that sacred sites in both countries were rich in folklore associated with the various sacred artefacts (Fig 2). In a number of cases the folklore is presented with a repertoire of performing art which undoubtedly enriches the ecotourism package at these sites.

These folklores have been documented and can provide exciting components to an ecotourism package.



Nyamgondho Legendary Tree



Observing Legendary Animal Footmarks at Nyamgondho

In most instances the nature communities have been excluded from management of parks, game reserves and forests, which they once held sacred and were an integral component of their livelihood [2,3,14]. This exclusion besides depriving the communities of the sacred role played by these sites has also encouraged poaching of wild animals, and illegal timber extraction, fruits and herbs harvesting[2]. This

has heightened depletion of indigenous plants and animals in these sites.

It is observed that the World Bank has included cultural heritage conservation components in some of its projects. However, opportunities for improving site security and sustainability has not been achieved, firstly, due to lack of information and also due to poor institutional coordination [9]. It is also observed that countries in sub-Saharan Africa tend to be mainly concerned with cultural artefacts and often to a lesser degree with site protection. In most African countries, there are no specific agencies assigned to protect cultural heritage and especially sacred sites.

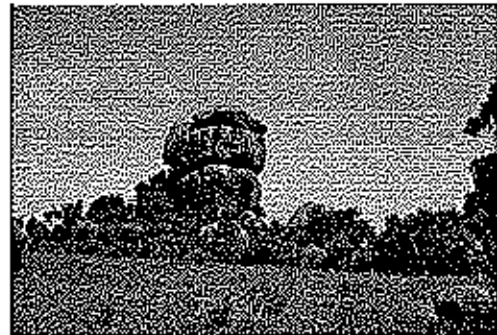
It is upon this background that the tourism industry can positively be employed for beneficial purposes to the sacred sites and the communities around these sites. This will aid local, indigenous and traditional people safeguard their heritage as well as economically benefit from their efforts.

3.3 Informal Education for Capacity Building

Culture is handed down from generation to the next. Most of the cultural norms and values have been overshadowed by modern education system as well as western/modern approaches to life[5]. There is an eminent information gap about cultural observations in the present generations. The community elders, who once were bestowed with cultural wealth and subsequently in charge of informal education for enhancement of traditional/cultural values are dwindling, and their knowledge most a times regarded as overtaken by time [3,21]. This means that cultural sites specifically sacred sites are culturally losing meaning, and may only be valued for satisfaction of economic wants. This fact, evidences our prior observance that, the cultural artefacts are important to people, but not the sustenance of the sacred sites. It is therefore imperative for development practitioners to introduce informal learning centres as well as pursue avenues of recovering the information gap

on sacred sites. The few remaining elders could be of great help in tapping knowledge and information that will authenticate the existing academic literature [21].

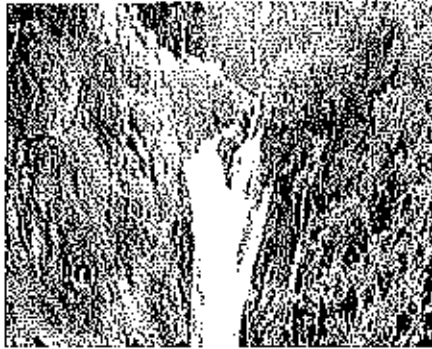
Using stakeholder workshops the study explored the need for informal education as one way in which the capacity of both development partners/practitioners, as well as the local populace can be built in a bid to manage the sacred sites for both sustenance of biodiversity, as well as sustainable socio-economic development. It was observed that communities were oblivious of the potential for income generation such as ecotourism though they acknowledged that they were already receiving income from site visitors in some cases. Indeed at the Kit Mikayi rock sacred site in Kenya and at Ssezibwa Falls sacred site in Uganda (Fig 2) local communities have introduced Visitor's books and categories of fee charges to various classes of visitors



Kit Mikayi Rock Sacred site

3.4 Integration of Informal Education in School Curriculum

The specks of African Traditional culture once taught in our school curriculum, including traditional tales, riddles, taboos, songs, proverbs, among other African orature, are in most schools a thing of the past.



Ssezibwa Falls Sacred site

role of cultural heritage, which is embedded in ATR, as Mbiti (1975) observes that religion is part and parcel of human life. It is by far the richest part of African heritage, and dominates the thinking of African peoples to such an extent that it has shaped their cultures, their social life, their political organizations and economic activities. The inability of generations to recognize this role is evident in the destruction of the environment generally and sacred sites in particular.

In a bid to reclaim, manage and upgrade the important ecologies for sustainable development, this study has documented a wealth of folklore, mapped and geo-referenced sacred and cultural artefacts in Kenya and Uganda (Fig4) and explored possible avenues of integrating cultural studies in the existing formal education curriculum in a stake holder's workshop.

The possible challenges in this endeavour, besides being highlighted, interventions proposed for confronting these challenges are being sought as a way of creating eminent awareness for policy implementers and for development practitioners.

3.5 Sacred sites and biodiversity conservation

The convention on biological diversity, adopted at the 1992 Earth summit in Rio de Janeiro acknowledged the need to protect and encourage customary use of biological resources in accordance with traditional cultural practices

that are compatible with conservation or sustainable use requirements (Article 10). The common question asked is whether environmental conservation can be based effectively on cultural values and traditional belief systems. While it is generally true that proven scientific ecological approaches for conserving plant and animal ecology have had some success it is conceded that a better result for the environment could have been achieved with integration with community participation.

In this regard an evaluation of the state of plant species diversity with respect to community priority species for conservation was undertaken in Kenya and Uganda (Table3). Subsequently seed propagation methods for selected community priority species have been developed (Fig 3).

Plant name	Plant Use type	Rate of use	Current status
<i>Tetradenia riparia</i>	T Medicinal	3	1
<i>Tamarindus indica</i>	T Fruit	1	1
<i>Artocarpus heterophyllus</i>	T Fruit	3	3
<i>Erythrina abyssinica</i>	T Medicinal	1	3
<i>Eulalia abyssinica</i>	T Medicinal	1	2
<i>Spathodea campanulata</i>	T Medicinal	3	3
<i>Citrus limon</i>	T Fruit	1	2
<i>Acacia hokii</i>	T Medicinal	1	2
<i>Morus alba</i>	T Fruit	1	2
<i>Vernonia amygdalina</i>	T Medicinal	2	2
<i>Canarium schweinfurthii</i>	T Fruit	3	1
<i>Tagetes minuta</i>	H Medicinal	3	1

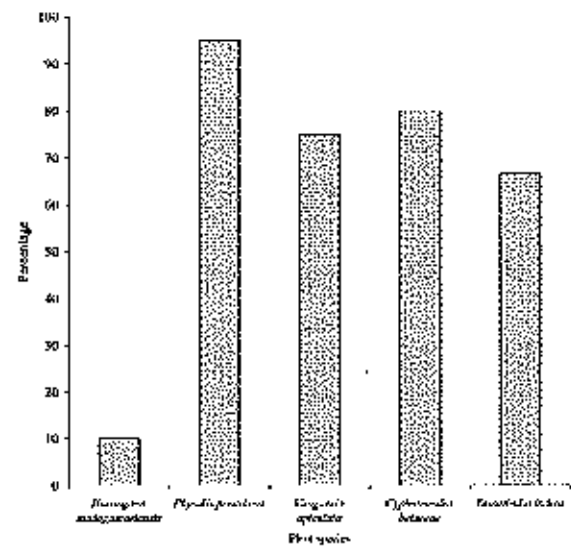
<i>Aframomum angustifolium</i>	H	Fruit	2	2
<i>Physallus peruviana</i>	P/H	Fruit	1	2
<i>Papyrifera papyrus</i>	P/H	Craft	3	3
<i>Acanthus arboreus</i>	S	Medicinal	3	2
<i>Ocimum basilianum</i>	S	Medicinal	3	2

Community priority species in Uganda sacred sites

KEY :Rate of use: 1= rarely used; 2= moderately used; 3= Commonly used Current status: 1=Endangered; 2=Rare; 3= Abundant

These techniques are destined for dissemination through nursery training workshops to enable communities undertake sacred site enrichment planting where possible as well as individual farmer domestication for conserving these priority species. In this regard dissemination approaches that enable hitherto neglected indigenous species to be planted alongside established, commercially viable species will need to be promoted in mixed rather than in pure stands.

Fig. 2 Percentage germination of wild collected seeds of selected species (P=H in seed bank)



Seed Germination after Pretreatment

4 Conclusion

It is concluded that it is the highest time scientists, sociologists, development agents, policy makers and implementers explored alternative avenues which can beef up the efforts of biodiversity conservation. The efforts should more so be geared towards enhancing sustainable development which can not and will not happen until local communities with their indigenous resources such as these sacred artefacts in the sacred sites play a central role. All the results presented and discussed here provide a template for an immeasurable potential as a source of findings that will stir policy implementation for effectual management of our biodiversity in sacred sites in Uganda and Kenya.

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