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INQUIRY INTO A WITHERING HERITAGE

*Relevance of Traditional Baganda Approaches to
Sustainable Environmental Conservation*

JIMMY SPIRE SSENTONGO



**UGANDA MARTYRS UNIVERSITY BOOK SERIES
NUMBER 3**

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Contents

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Jimmy Spire Ssentongo

Abbreviations

EfS	Education for Sustainability
ESD	Education for Sustainable Development
IK	Indigenous Knowledge
LSBU	London South Bank University
NEMA	National Environment Management Authority
TEK	Traditional Ecological Knowledge
UNEP	United Nations Environmental Programme
UNCED	United Nations Conference on Environment and Development

Preface

Basing on the observation that traditional knowledge has widely been marginalised in environmental conservation approaches and practices today and that this partly because it is insufficiently documented and analysed, this study set out to establish the relevance of traditional Baganda approaches to sustainable environmental conservation today.

The study specifically sought to answer the following questions: What are the traditional Baganda methods of environmental conservation? How do the Baganda traditionally transfer environmental conservation knowledge from one generation to another? How is the future perceived in traditional Baganda ecological knowledge? What lessons can be drawn from the traditional Baganda approaches for today?

To answer the above questions, the qualitative study was approached interpretively. The respondents (eight) were identified both purposively and by snowball sampling. This was mainly because the target group were the elders considered to be custodians of traditional wisdom. Data was collected by use of in-depth interviews, observation and documentary analysis.

The study established that the Baganda conserved the environment mainly because it was practically the direct source of most basic needs. The first step to protecting the environment was by knowing it and its immediate functions. It was then conserved through taboos, myths, folktales, religion, the clan system, leadership, agricultural practices, and collective responsibility.

The conservational knowledge was passed from generation to generation by nominal and oral means. Nominally, it was by educational names to people and places. The oral means constituted folktales, songs, and legends. Though elders played a key role in transmitting knowledge, it was not a task exclusive to them. It was the responsibility of everyone who had the knowledge to pass it on to others. Every generation was held responsible to the next. There was much respect for the ancestors (the 'living dead'). These were appeased by not destroying what they tried to safeguard for other generations. Annoying ancestors would invite penalties such as bad luck, famine, death and other disasters. As such, there was a strong and accountable link between the dead, the living and those to come.

Not all traditional environment conservational methods of the Baganda were found to be relevant today. Advancements in knowledge and technology, population increase, and more contact between peoples have rendered some methods anachronistic. However, some remain important. Even today, it is important that people understand, value and connect with their environment. Taking environmental conservation as a community responsibility and not exclusively leaving it to environmental bodies is a much needed approach. It also remains relevant that people are raised to appreciate and respect the environment right from childhood so that such values become part and parcel of them.

On the basis of the study conclusions, I recommend that: it becomes a Government condition that every conservation initiative takes stock of local knowledge to be implemented; traditional approaches to environmental conservation are incorporated into Uganda's primary and secondary curriculum; elders initiate 'fireplace' associations to take advantage of new communication media; and that both

Government and civil society create more awareness about the environment and its value.

Agenda and Rationale

The world today is faced with numerous problems and threats due to unsustainable management of our environment. It is thus an urgent duty for both scholars and practitioners to find means of improving the management of our environment. One of the possible sources of vital information are the traditional approaches which have been abandoned in most approaches to sustainable environmental management today. This research therefore seeks to critically explore the traditional Baganda approaches to environmental management and their relevance to *sustainable* environmental management today.

This report constitutes five chapters. Chapter One, the General Introduction, highlights: the context in which the study is situated, the statement of the research problem, research questions, scope of the study and significance of the study. Chapter Two, Literature Review, contains an exploration and analysis of literature related to this study with a view of establishing views of other scholars on the subject and the remaining gaps that need to be filled by this study. Chapter Three involves a presentation and justification of the research methodology and methods used to carry out the study. The findings of the study are presented and analysed in Chapter Four. Chapter Five contains reflections on methodology and operational framework, suggestions for further study, general conclusions, and recommendations.

Context of the Study

Achieving sustainable development is one of the fundamental challenges facing all societies in this century and millennium

(OECD 2001; Adams 2009). As already felt, failure to address the issue could have the most severe consequences for all people across the globe and for the environment of the planet on which we live. We no longer need to be reminded that the pressures on the natural environment have global significance as their consequences are not confined to national territorial jurisdictions (OECD 2001; Dumanoski 2009).

In trying to address this threat, there have been several views about the necessary measures and approaches. It is very noticeable in the South that most of these approaches are from the West and quite often through Western lenses. Some sections of Ugandan education, for example, have been pre-occupied with making students familiar with the cultural heritage of the former colonial powers (Okere *et al.* 2005) some of which have since failed to address issues of sustainability. As Escobar puts it, "...development has relied exclusively [read 'mainly'] on one knowledge system, namely, the modern Western one. The dominance of this knowledge system has dictated the marginalization and disqualification of non-Western knowledge systems" (1995, p.3). The failure to honour indigenous approaches has undermined the development and effectiveness of some of our modern institutions, and the assimilation of Western culture has not been successful in bringing about progress and modernity in Africa (Mbigi 2005). Whilst the lack of progress could be due to several other reasons, it nonetheless makes the point about the marginalization of traditional wisdom.

As some writers indicate, in some cases African traditional wisdom has not been integrated in several sustainable development initiatives because it has not been well-documented for easy access (Ocholla 2007). It is known to mainly flourish through the agency of oral literature, a medium greatly threatened today due to the sweeping effects of globalisation. With the infiltration of the rural African life

with practices from different parts of the world, a number of traditional African sustainability measures are slowly dying away, even those that would still be relevant. You hear of them in stories shared by elders in the villages and can witness some few still in practice but with less commitment and enforcement. It is of strategic and fundamental importance that this wisdom is accurately documented not only for anthropological, political and historical purposes but also for the information that it can pass to the contemporary approaches to sustainable environmental management. But as Briggs (2005) notes, whether the use of indigenous knowledge genuinely does offer a realistic and meaningful way forward for development planning and implementation is highly contested. Thus there still remains much work on the side of researchers in establishing the possible connection between traditional knowledge and sustainable development, especially in today's context.

That traditional African societies had their own approaches to environmental sustainability is not subject to contest. It is by their wisdom that they have been able to live in harmony with nature for generations (Briggs 2005; Okere *et al.* 2005). For example, the Baganda had/have a practice known as *Bulungi bwansi* (the good of the earth) whereby it was the responsibility of the whole community to ensure that the environment is well conserved (Ssentongo 2007). Responsibility did not exclusively lie on a separate body but the community at large. We can retrace to build on such and other relevant cultural values in embracing the global call towards sustainable environmental management (Escobar 1995). Verhagen (2008) rightly asserts that no real or lasting progress in improving the quality of life of planet and people can be made without a critical assessment of a person's or society's value system and its often implicit worldview.

In the spirit of synthesis between modern and traditional approaches, a number of international development organizations are starting to realize the significance of indigenous knowledge to sustainable development. In *Our Common Future* (1987), the World Commission on Environment and Development advised that indigenous communities were “repositories of accumulations of traditional knowledge and experience”. At the 1992 United Nations Conference on Environment and Development (UNCED), the significance of traditional knowledge was again highlighted in the Rio Declaration and Agenda 21. Article 8 (j) of the Convention on Biological Diversity addresses the "knowledge, innovations and practices of indigenous and local communities". In the same vein, UNESCO (2002) observes that:

In all regions of the world are found local communities who have long histories of interaction with the natural environment. Associated with many of these communities is a cumulative body of knowledge..These sophisticated sets of understandings, interpretations and meanings are part and parcel of a cultural complex that encompasses language, naming and classification systems, resource use practices, ritual, spirituality and worldviewⁱ.

In Uganda, the call to harness positive aspects of indigenous knowledge for sustainable development has been made by the National Environment Management Authority – NEMA (2008). NEMA specifically highlights the need of Government [and civil society] “... to identify available cultural resources, analyse their significance to current environment management strategies and use them for sustainable development” (NEMA 2008, p.22).

It should also be noted that, for some time African traditional approaches are still seen by some as simply

anachronistic, primitive and irrelevant to today's globalised society (Grenier 1998). Often, formal schooling reinforces this negative attitude. Hence, some local people and communities have lost confidence in their ability to help themselves and have become dependent on external solutions to their local problems (Grenier 1998). All this calls for rigorous research so as not to bury the wealth of our heritage where it can still serve us.

The Baganda people, whose practices are the focus of this study, live in the south central region of Uganda known as Buganda (Kizza 2010) and their language is Luganda. At 4,126,370 (17%) people, the Baganda constitute the biggest ethnic group in Uganda (UBOS 2002). Buganda is bordered to the south and east by Lake Victoria. Baganda society (Buganda Kingdom) is traditionally organised in a monarchical system under a king (*Kabaka*). Believed to have started circa 1200 AD, Buganda is one of "... the world's oldest royal dynasties (Lule 2006). All cultural institutions had been abolished in 1966 under President Milton Obote and this distorted Baganda culture since cultural leaders had lost their influence among people, especially in the role of cultural protection. Cultural institutions were revived in 1993 and later constitutionalised but with much less power than they had before. As such, their influence on cultural protection is far less significant today. Though there are other reasons, this could partly serve to explain the diminished role of traditional Baganda practices in environmental conservation.

According to NEMA (2008), the Central Region that is mainly habited by the Baganda is one of the areas most highly affected by pollution, deforestation, poor solid waste disposal, degradation of water catchment areas and biodiversity loss. This situation requires integrated efforts for the realization of sustainable environmental conservation. "The traditional system that had stood the test of time is sadly disappearing

and have [sic] not been fully incorporated into the contemporary management of resources” (Edroma 2002, p.123). The big question here is whether, in the current setting, the traditional Baganda approaches to environmental conservation are of any relevance. It is this question that this study broadly endeavours to answer.

Knowledge Gap

Today there is worldwide concern for sustainable environmental management after the realization that ‘development’ in various countries was taking a dangerous route resulting into perils like global warming, social injustices, environmental degradation, inter-generational inequities (Dumanoski 2009) and so on. Despite the fact that indigenous communities like the Baganda have a rich heritage of sustainability approaches, the international push for the exploration, documentation and, where necessary, embracement of traditional/endogenous sustainability approaches (indigenisation) is yet to be comprehensively exploited, especially in Uganda.

The slow track in the embracement of traditional approaches to sustainable environmental management is partly due to the fact that such approaches are not well-documented to be distinctly known. However, there could be a lot that the study on Baganda traditional environmental management practices can contribute to the sustainability debate and initiatives today, hence the need for focused and comprehensive research on this subject. This study attempted to respond to this need, specifically looking at the following research questions:

1. What are the traditional Baganda methods of environmental conservation?
2. How do the Baganda traditionally transfer environmental conservation knowledge from one generation to another?

3. How is the future perceived in traditional Baganda ecological knowledge?
4. What lessons can be drawn from the traditional Baganda approaches for today?

Delimitation of Study

The study specifically studied the Baganda ethnic group, which is the largest in Uganda (UBOS 2002). The Baganda are mainly spread in the districts of Masaka, Mpigi, Kampala, Rakai, Wakiso, Mubende, Mityana, Luwero, Sembabule, and Mukono. From these the researcher will purposively select samples, with the main target being elders in rural areas who are believed to be well-versed with the issues under study (Ocholla 2007). Limiting the study to one ethnic group is meant to allow for qualitative in-depth exploration within a manageable case.

In some of the rural areas in Uganda, some of the traditional practices still exist either as memory alone or memory and practice. It is for this reason that the study mainly targeted rural elderly people of around 70 years and above. It was also my conviction that some of these practices may not be exclusively generated by the Baganda since, as other peoples, the Baganda have also learnt some practices from other peoples such as the Banyankole, Bakiga, Banyoro, Basoga and others. As Amselle reminds us, "there is not, nor has ever been, such a thing as a closed society" (2002, p.220). Indigenous knowledge is fluid and constantly changing, reflecting renegotiations between people and their environments (Sillitoe 1998). The traditionally learned practices were also considered in the study.

In studying sustainable environmental conservation, the study looked at practices that involved the use of environmental resources mindful of future generations, the carrying capacity of the environment and cautious about

environmental degradation. Here environmental degradation stretches to include water, land and air pollution, interference with ecosystems, and irresponsible destruction of flora and fauna. Knowledge on the above elements was sought in social and agricultural practices, proverbs, myths, rituals, and taboos.

Operational Definition of Traditional Knowledge

In this study, traditional knowledge is considered synonymous to indigenous knowledge. It is understood as "... a cumulative [and dynamic] body of knowledge and beliefs handed down through generations by cultural transmission about the relationship of living [and non-living] beings, (including humans) with one another and with their environment" (Gadgil *et al.* 1993, p.151).

Value Projections

In view of its achievements, this study serves a number of significances. One of the stakeholders in this study is the Buganda Kingdom. The study comes at a time when the Kingdom is creating the 'Buganda Tourism Centre'. This is supposed to showcase Buganda's cultural heritage to visitors so as to expand its visibility and resource base. Since there is little written about Buganda's heritage in terms of environmental knowledge, this study serves a vital role in analytical documentation.

But since there is a lot that Buganda has in common with other Ugandan and African communities in terms of indigenous knowledge, the significance of the knowledge generated from this study extends beyond the confines of Buganda. It as well serves a catalyzing role for other communities to look into their heritage for what can still be relevant today.

NEMA called upon Government to “... to identify available cultural resources, analyse their significance to current environment management strategies and use them for sustainable development” (2008, p.22). In responding to this call, if considered, the findings of this study are expected to be of use to Government as background knowledge for policy formulation.

At the personal level, this study was quite insightful. By expanding my knowledge on traditional Baganda approaches to environmental conservation, the study made me appreciate my cultural heritage more. It also opened me up to deeper meanings of things I had hitherto taken for granted. With such knowledge I was able to objectively assess its relevance today.

My personal engagement in all aspects of this study also broadened my understanding of research methodology and methods. I expect this knowledge to be very helpful in other researches I will be involved in since I am in the academic field.

Rationale for the Study

Certainly there has been a lot of research on indigenous knowledge in different contexts and from different angles of approach. The relevance of this study may therefore be questioned. Despite the fact that many studies have been carried out, it remains clear that indigenous knowledge is still insufficiently documented and analysed. It thus “... stands in danger of being lost as its custodians [the elderly people] are passing away” (UNEP 2008, p.4).

With the current wave of globalization, homogenisation and universalisation of knowledge, several aspects of indigenous knowledge that could still be relevant are being washed off the epistemological scene. Moreover, we are already witnessing that the ‘modern’ approaches to environmental conservation are insufficient. There could be several other factors behind,

but the upsurge in environmental degradation today can partly be explained by the breakdown of traditional knowledge systems.

What is aimed at in this study is not nostalgic romanticisation of traditional knowledge but a dynamic process of 'cultural negotiation' (May and Aikman 2003) through which, by way of analysis, we identify elements of traditional knowledge that are still relevant for sustainable environmental conservation today.

At this point I now turn to a discussion of the methodology and methods utilised in the research.

Methodology

This Chapter elaborates the methodology and methods that were used in the study. Here in, the researcher identifies and justifies the paradigm within which the research is structured, the approach, sampling techniques, the specific methods of data generation, ethical considerations and explains how the collected data was analysed.

Research Design

The study took an interpretivist outlook within which it specifically drew from the contextualist worldview. In the interpretivist paradigm, “human action is seen as a collection of symbols expressing layers of meaning... But how one interpretes [the text drawn from this collection of symbols] depends in part on the theoretical orientation taken by the researcher” (Berg 2001, p.239). Interpretivism holds that people socially interact and respond based as much, if not more, on what they believe to be real than what is objectively real. Hence understanding people’s practices requires studying how the latter go about constructing social reality. “As people grow up, interact, and live their daily lives, they continuously create ideas, relationships, symbols, and roles that they consider to be meaningful or important (Neuman 2007, p.43). This is as well considered to be the case in the generation of traditional knowledge.

Traditional knowledge has been criticized for being predominantly mythical. But in an interpretivist approach it would be viewed in terms of the ‘workability’ in the

perspective of the holding community. As such, context is of key significance in such an approach.

A case study design with specific selection of the Baganda was adopted for the study. The design involves detailed and intensive analysis of a case (Bryman 2008; Gerring 2007). The major purpose of selecting one case is to allow for deep analysis. Since Buganda is quite vast, specific areas were purposively chosen for the study basing on environmental features there. To tap as much traditional environmental conservation knowledge as possible, areas were selected on grounds of being hilly; forested; swampy or with water bodies. Nkozi village, on top of being convenient, is around swamp and bushes and Ssesse Island is both forested and surrounded by Lake Victoria (the biggest Lake in Africa).

The study was purely qualitative as it is mainly concerned with indepth analysis and has got mainly to do with values and practices that do not require a quantitative approach. "Qualitative research ... refers to the meanings, concepts, definitions, characteristics, metaphors, symbols, and descriptions of things. In contrast, quantitative research refers to counts and measures of things" (Berg 2001, p.3). Qualitative approaches are here preferred for they are particularly sensitive means of capturing the lived experiences of groups and individuals, especially those often left out of traditional knowledge-building research projects (Hesse-Biber 2010). A critical exploratory approach was adopted through which the researcher endeavoured to identify the key features of environmental conservation in traditional Baganda approaches to development and explore their relevance to sustainable environmental conservation today.

Sampling Techniques

Purposive and snow ball sampling techniques were the main ones used to identify the key informants. Purposive sampling

mainly served in the selection of elders as “unique cases that are specially informative” (Neuman 2007, p.143) and judged satisfactory to the research needs (Cohen and Manion, cited in Odiya 2009). It was also found appropriate because the purpose of the study was more to gain deep understanding than to generalize to the whole Baganda population. Snowball sampling came in where identified respondents helped in leading the researcher to other appropriate respondents.

Data Collection Methods

I agree with Maundu (1995) that the successful collection of indigenous knowledge is dependent on the manner in which the information is collected, the relations established during the process, and the way the collection process is tailored to fit with the development priorities of the community in question. To ensure methodological integrity, the study will rely on both primary and secondary sources.

The secondary/documentary sources included works of scholars who have written about African traditional practices in general and, more particularly, traditional Baganda practices.

However, in order to back the literature on African traditional approaches to sustainable environmental conservation, especially on issues with limited literature, the research involved *narrative inquiry* through *in-depth interviews* with eight elderly men (four) and women (four) from rural communities. It should be noted that, in most traditional African communities, the traditional keepers of local ecological knowledge and wisdom are typically the key elders (Grenier 1998), especially from rural communities. The narrative inquiry method “... seeks to understand sociological questions about groups, communities, and contexts through the individual’s lived experience” (Marshall and Rossman 1995, Bryman 2008). This method was also successfully used by

Oruka (1991) in his folk/philosophical sagacity project, hence corroborating my belief that it could lead me to reliable data.

Both participant and non-participant *observation* were used. Grenier (Ibid) observes that participant observation is an ideal method for documenting and understanding traditional knowledge, whereby the researcher interviews informants in as natural a setting as possible (for example, while participating in relevant activities). The traditional activity, combined with the natural environment, provide a natural stimulus for discussion and learning for the researcher, and the informant. Where it was be possible to carry out observation without participating in the studied activity/ies, I used non-participant observation.

Data Analysis

Qualitative methods of analysis were mainly used on the research findings. “Qualitative data analysis involves organising, accounting for and explaining the data; in short, making sense of data in terms of the participants’ definitions of the situation, noting patterns, themes, categories and regularities” (Cohen *et al.* 2007: 461).

During the interviews, detailed notes were taken and information gaps were amended through additional visits, other interviews, and cross-checking (Dahlberg and Trygger 2009). Interviews were analysed at two levels: First, they were analysed individually as personal narratives, secondly, I comparatively looked for similarities and differences between responses of different interviewees – and causes of both. Information was organised into different themes (mainly generated from the interview guide, interviewee responses and research questions), and initial analysis was done within each theme. Thereafter data were analysed across themes in line with the research questions.

Data from the interviews, observation, and from the literature was concurrently brought into discussion. The primary data mainly served in backing up documentary sources and filling the knowledge gaps not addressed by the literature.

Ethical Considerations

A major ethical dilemma in research is that which requires researchers to strike a balance between the demand placed on them as professional scientists in pursuit of truth/knowledge, and their subjects' [and others in society] rights and values potentially threatened by the research (Cohen *et al.* 2007; Neuman 2007). The researcher therefore endeavoured to seek the informed consent of all respondents. They were informed about the nature and motivations of the study so that they could knowledgeably make up their mind to participate or not. As Neuman points out, "permission alone is not enough; people need to know what they are being asked to participate in so that they can make an informed decision" (2007, p.54). I ground this procedure on the belief that all subjects have the right to freedom and self-determination and on the conviction that it is not enough for the researcher to concentrate on strategies for getting the required information but also to consider the wellbeing of the participants in the study.

In order to ensure that I considered the ethical issues that were likely to arise and to have developed protocols to protect participants from harm (Piper and Simons 2005), this study went through the Education Department Research Ethics Committee (LSBU) and was duly given ethical approval (see Appendix 2).

The researcher made all efforts possible to avoid any sort of psychological and physical harm to the respondents. This involved avoiding careless reference to offensive stereotypes, assumptions and other statements hurtful to the respondents.

In the same vein, I respected the culture of the respondents and avoided approaching them judgementally (Piper and Simons 2005).

All respondents were asked if they wished their names to be revealed in the report. Some of the respondents preferred anonymity and it was duly observed. This was not only for the moral of respecting their wishes but also to ensure their security and avoid any harm that would otherwise occur to them.

Reflexivity in the Research Process

According to Davies (2002) and Cohen *et al.* (2007), all researchers are to some degree connected to, a part of, or/and the object of their research. And, depending on the extent and nature of these connections, questions arise as to whether the results of research are artefacts of the researcher's presence and inevitable influence on the research process. Reflexivity involves the observation that researchers "... bring their own biographies to the research situation and participants behave in particular ways in their presence" and that they "should acknowledge and disclose their own selves in the research, seeking to understand their part in, or influence on, the research" (Cohen *et al.* 2007, p.171). For these reasons, considerations of reflexivity are important for all forms of research. It is important for the researcher to be aware of their own image they go with to the field, how their identity influences the study.

I belong to the Baganda ethnic group that was the subject of this study. For that matter, I tried hard to ensure that my ethnic attachment did not lead me into a self-serving bias. I tried to create 'reasonable' distance between myself and the study entity in order to limit distortions in both data collection and analysis. However, belonging to the research group on the other hand helped to win trust of the respondents for easy

access to the field. I was able to show that I was not just studying the traditional practices for the sake of mere documentation but that I had real attachment to the research issues as my heritage. Belonging to the group also raised a high sense of curiosity in me to get to the depths of the study. The research process, especially data collection, felt like a journey of self-discovery. This was a strong motivating factor.

The Chapter that follows is a thorough exploration of the literature on IK so as to establish a strong base for this study by looking through what has already been done by other researchers.

Related Literature

This chapter involves an examination of “how others have already thought about and researched the topic” (Berg 2001, p.19). As such, the themes of the review are mainly drawn from the research questions of the study. Literature is reviewed on: the concept of traditional knowledge; the dynamics of traditional knowledge (accumulation, sustenance and transfer); traditional approaches to environmental conservation and lessons from the traditional approaches for today.

Literature is reviewed with the aims of acquiring foundational knowledge for the study, avoiding duplication of prior studies, and identifying knowledge gaps to be filled by this study.

Concept of Traditional/Indigenous Knowledge

As earlier indicated, the terms ‘traditional’ and ‘indigenous knowledge’ (IK) will be held synonymous (Ocholla 2007) in this study. The researcher is nevertheless aware that some researchers view the terms differently. The term IK, for example, has been shunned by some writers due to its politicisation to exclude local communities who may have lived in an area for a long period of time and developed their own local knowledge (UNEP 2008). But as Langil (1999) argues, it is not necessary to know if the people in question are the original inhabitants of an area; the important thing is how people – aboriginal or non-aboriginal – in a particular area view and interact with their environment.

The concept IK is variously understood and applied by different writers. Battiste and Youngblood Henderson (cited in Lertzman and Vredenburg 2005) view attempts to define IK as inherently colonial, grounded in a Eurocentric need to categorize and control. Nevertheless, it is important to examine the understanding of IK in literature so as to identify and critique the given definitions. It would also help me to specifically delimit my conceptual scope.

Hens (2006) defines indigenous knowledge as the knowledge that women and men, families and communities have developed themselves for centuries and allowed them to live in their environment for often long periods of time. The time and context elements vividly occupy a key position in the definition of indigenous knowledge. In emphasising the context component, Okere *et al.* (2005) argue that the particular local indeed indicates the active creative originality of vital contexts and networks, the originary well-springs of that given people's endogenous ability to shape and manage their world, generation after generation, in lines with their own genius.

But Hens' definition poses a problem with regard to how far back this knowledge is supposed to stretch. It is suggested that this is knowledge gathered for centuries, but would this mean that communities less than a century old cannot have indigenous knowledge? This leaves us with a challenge in so far as the temporal stretch of indigenous knowledge goes.

Lertzman) highlights what he refers to as 'common themes' in IK. These include:

A spatial aspect (geographically located); a historical or temporal nature with very long time frames [as in Lens (2006) above]; socially mediated (i.e., transmitted through social institutions at the community level); and culturally located (functions within a larger philosophical and cultural context). A fifth aspect, not so prevalent in the literature, relates to the "methodological" element of TEK [Traditional Ecological Knowledge] (Lertzman,

2003). *This pivotal feature refers to traditional knowledge protocols that govern how TEK is accessed, verified and transmitted (cited in Lertzman and Vredenburg 2005: 245.*

The above conceptualisation broadens the meaning of IK but remains understandably unclear in what is referred to as 'very long time frames'. How long is 'long' in this case? I think the point to emphasise here is that it is knowledge that is generated over time. We do not necessarily need to add that it must be over a 'long period of time'. Looking at the time/history dimension from a different point of view, the International Labour Organisation defines indigenous knowledge as:

... that knowledge that is held [not statically] and used by a people who identify themselves as indigenous of a place based on a combination of cultural distinctiveness and prior territorial occupancy relative to a more recently arrived population with its own distinct and subsequently dominant culture (ILO, 1989: Article 1).

Battiste (ND) observes that there has been a tendency in Eurocentric literature of considering indigenous knowledge as static. As such, indigenous knowledge is portrayed as a body of knowledge that has been handed down from generation to generation unchanged. To Battiste, like any other form of knowledge, indigenous knowledge is dynamic, changing with the environmental and sociological changes along time. Hoppers (2004) corrects this impression by emphasising that though most of this knowledge and these skills have been passed down from earlier generations, individual men and women in each new generation adapt and add to it in a constant adjustment to changing circumstances and environmental conditions.

To emphasise change, Ocholla (2007) defines it as a 'dynamic archive' of the sum total of knowledge, skills and

attitudes belonging to and practiced by a community over generations, and is expressed in the form of action, objects and sign language for sharing. It is on the basis of this dynamism that Mander detests the term 'traditional' since it tends to imply "a static remnant of the past" (cited in Dahlber and Trygger 2009: 79). In the same vein, because of its dynamism, and its status as hybrid and mediated knowledge, Briggs (2005) finds the name 'indigenous knowledge' no longer applicable and instead suggests that it should be more accurately referred to as local knowledge. However, Briggs' suggestion and seems to be based on a misconception of the term indigenous. Indigenous knowledge should not be understood to mean only that which is exclusively generated by a given people within an epistemologically isolated setting but what is generated or voluntarily adopted by a people in their context even where it involves learning from other peoples.

Though this study particularly focuses on the ecological component of IK, it should be noted that IK encompasses a number of things/categories. These include agricultural, meteorological, ecological, governance, social welfare, peace building and conflict resolution, medicinal and pharmaceutical, legal and jurisprudential, music, architecture, sculpture, textile manufacture, metallurgy and food technology (Hoppers 2004). But in practice this knowledge overlaps with no clear epistemic divides.

Hoppers adds that the practice of these 'knowledges' is embroiled in a cultural context, including songs, rituals, dances and fashion; it also includes technologies that range from garment weaving and design, medicinal knowledge (pharmacology, obstetrics), food preservation and conservation, and agricultural practices - including animal husbandry, farming and irrigation - to fisheries, metallurgy and astronomy. Its being interlinked therefore suggests that

research on IK, even when limited to the ecological aspect, looks within all aspects of culture for a comprehensive analysis.

Accumulation, Sustenance, Access and Transfer of Traditional Knowledge

Generation and Accumulation of Traditional Knowledge

According to Gadgil *et al.* (1993), IK is developed through a long time process of 'trial and error'. They point out that much of this knowledge is qualitative and based on observations on a rather restricted geographical scale. The process of accumulating this knowledge also involves abandoning irrelevant knowledge (Grenier 1998, cited in Dahlberg and Trygger 2009).

UNEP (2008) emphasizes that the setting/environment in which a given community lives determines the kind of knowledge they will generate. Indigenous knowledge among the Luo of western Kenya who live by the shores of L. Victoria can hardly be the same as that of the Maasai who are pastoralists in Kenya's rift valley areas. Therefore, though there might be some similarities in indigenous knowledge systems of different peoples, it is difficult to generalise it outside its context due to its specificity in time and space.

Access to Indigenous Knowledge

There are a number of factors that determine who accesses which indigenous knowledge within the community. First, access depends on the category of community residents and their specific roles (Edroma 2002; Hart and Mouton 2005 & Briggs 2005). Such access may also be determined by individual interest. They make distinctions between young and old; male and female; powerful and marginalised, and so

on. Different gender and age groups may have different levels of knowledge based on their areas and level of responsibility.

Looking at access to IK in the sense of the extent to which it is available and reachable today, we would say that IK is a widely threatened knowledge base. The older generation, known as the custodians of IK, are dying off without leaving any written record (UNEP 2008). This is not helped by the rapid environmental, political and social changes today which have placed IK in the danger of being overwhelmed by globalisation and new knowledge. Younger generations are mainly acquiring their values from school, media, and peers. The social grip of the elders and their communication networks have broken down leaving a generation gap behind. IK is thus dually entrapped; it is both very minimally documented and with fewer people willing to learn it from the elders.

Transfer of Indigenous Knowledge

Indigenous knowledge largely falls within the category of intangible knowledge. Nonaka and Takeuchi (cited in Ocholla 2007) define intangible knowledge as personal knowledge that is created through individual [and group] experiences and largely embedded within the culture and traditions of individuals or communities. Tangible knowledge, on the other hand, is recorded, documented or codified knowledge, widely conveyed through formal language.

Indigenous knowledge mainly lives in the memory of the beholder and is mostly transferred orally (Mbiti 1969; Edroma 2002). Hence, unless transferred, such knowledge is very likely to die with the beholder. Where it is part of a community's culture and traditions, it is orally or by way of exemplification transmitted from one generation to the other. This indicates

the strong need for its documentation in order to protect it from being wiped away as its beholders pass on.

Traditional Approaches to Environmental Conservation

Gadgil *et al.* (1993) observe that where indigenous peoples have for long periods of time depended on the local environment for the provision of vital resources, they have developed a stake in conserving and, in some cases, enhancing biodiversity. In the authors' view, this is done with the awareness that biological diversity is a crucial factor in generating the ecological services and natural resources on which they depend. It is argued that indigenous societies have strong incentive to nurture and sustain diversity in their immediate environs because their abilities to transform local resources through manufacturing and supplementing locally available resources with imports are limited. This would partly support the explanation that humans have little concern over the environment today due to the technocentric arrogance that science can always fix the damages to the environment (Gladwin *et al.* 1995).

Mbiti famously stated that "the [traditional] African is notoriously religious" (1969: 1). In the same vein, Gadgil *et al.* (1993) emphasise that in pre-scientific societies, models on how the natural world functions as well as prescriptions on how to manipulate it are much more closely integrated with moral and religious belief systems. A comprehensive analysis of traditional approaches to environmental conservation therefore must include integral comprehension of traditional religion.

In the traditional belief system, humans are viewed as part and parcel of the natural world. This manifests the traditional approach as ecocentric as opposed to anthropocentrism. An ecocentric approach is one in which the earth is viewed as "... the nurturing mother of life, a great interlocking order, and a

web of life in which humans are but one strand” (Gladwin *et al.*, cited in Ssentongo 2010a: 44). In ecocentric ontology, “... earth is considered to be alive, active, sensitive to human action, and sacred. Everything is connected to everything else, and internal relations and process take primacy over parts” (Ssentongo 2010a: 44). By contrast, anthropocentrism holds that humankind is separate from and superior to nature. The natural world is hence objectified and relegated to possessing only instrumental and typically monetarily quantifiable value as a commodity.

Mythsⁱⁱ and folktales (traditional stories) occupy an important place in TEK. The Baganda traditionally have a rich body of myths and folktales which are meant to informally educate every generation to respect and preserve nature. Eliade observes, “one of the foremost functions of myth is to establish models for behavior” (cited in Ssentongo 2010b, p.3). More specifically, the environmental function of myth is explained more elaborately by Bond as:

...the expression of an ecological balance; the crystallization that maintains and preserves a living participation of human community with its particular environment. It represents a harmony, a holistic unity, and commands the fascination of a thing of beauty” (1993, p.40).

Myths tend to be symbolic in nature. In a mythical story, for instance, there would be reference to something held to be real and true, but its significance goes beyond the cover of the story. Some profound truths are normally communicated in the form of a story that may appear to be far from real (Waardenburg 1980). Waardenburg goes further to observe that “... what is true is not the details of the story itself but the deeper meanings which become present to both teller and listener only in the act of telling” (1980, p.53).

This study will also have to explore some of the Baganda myths and folktales generically suggested above, their effectiveness in environmental conservation at their time of use and whether they serve any relevance today.

The traditional view of humankind as part of the natural world and a belief system stressing importance and respect for the rest of the natural world is of value for evolving sustainable relations with the natural resource base (Gadgil *et al.* 1993). According to Ssentongo (2010b) and Otiso (2006), the belief in God/s and other supernatural powers which is deeply rooted in Baganda culture plays a vital role in natural resource management. In many indigenous communities, certain forests were protected as shrines to be used for worship and other rituals. Such protected areas in fact ended up having multirole functions as they also influenced other elements of the environment, like biodiversity, forest conservation, land use management, and so on (UNEP 2008). Pearson refers to such as “religiously based forms of native conservation” (1989, p.306). Everything created on earth did not ultimately belong to man but to God/s. Most environmental elements are taken to be manifestations or/and places of abode for supernatural forces. It was therefore unacceptable for one to just arbitrarily cut down a forest, misuse a lake/river or go hunting indiscriminately. Such actions, it was believed, would make the spirits angry and that they would express their anger in undesirable ways.

To avoid over-grazing and to allow fields to recover, some herding communities in the Sahel adopted the practice of rotation by cyclically migrating seasonally. The patterns of migration followed seasons in a way that would allow for land to fallow as herders moved to places of greener pasture following rains (Gadgil *et al.* 1993). In sedentary farming communities, shifting cultivation was used. It is credited for having helped in controlling gully erosion in mountainous

areas such as Uluguru Mountains of Tanzania (UNEP 2008). But this practice has been rendered impracticable with the growing populations and privatisation of land. Some of the communities that practiced this rotational system have had to adjust to a sedentary lifestyle or else be in conflict with neighbouring communities over resources.

Nyong *et al.* (2007) explored the climate change mitigation strategies of the people of the Sahel through IK and came up with important observations. It was observed that local farmers conserve Carbon in soils through the use of zero tilling practices in cultivation, mulching and other soil management techniques. Natural mulches are known to moderate soil temperatures, suppress diseases and conserve soil moisture. They further highlight that local farmers are known to have practiced the fallow system of cultivation, which favoured the development of forests that in turn help in sequestering and storing carbon. One of the significant indicators that the importance of forests was recognised is the fact that traditional communities commonly had communal forest reserves.

Adesina (cited in Nyong *et al.* 2007) points out that in the south western part of Nigeria, agroforestry was traditionally encouraged through the cultivation of shade-tolerant crops such as *Dioscorea* spp and cocoyam in essentially a permanent forest setting. This would limit the rate of deforestation. UNEP (2008) further argues that in this type of farming trees were spared because the rudimentary tools used could hardly cut them down, hence a blessing in disguise.

Some of the environmental conservation practices can be cited from the traditional disaster management practices. UNEP observes that in Swaziland floods and droughts were predicted by observing the height of the nests of the *emahlokohloko* bird (*Ploceus* spp., known as *endegeya* in *Luganda*). When the nests were built very high in the trees and next to a river, that was a sign of impending floods. When

floods are unlikely, the nests are built low. This practice was not only important for preparing for disasters like floods but also for appreciating and conserving non-human elements of nature such as the *emahlokohloko* birds in this case.



Emahlokohloko (*Ploceus* spp.ⁱⁱⁱ)

There are several methods used for biodiversity conservation in IK. One of such methods is the use of totems (Ssentongo 2010b). For example, among the Baganda people, everyone belongs to a clan and each clan is symbolised by a totem from nature, especially from “...animals and plants that occupy a strategic place in the culture’s cosmological system” (Alasuutari 1995, p.28). Some of the totems are: monkey, antelope, lion, leopard, crested crane, and others. Membership to a clan comes with responsibility to protect the clan’s totem. This ensures protection of the totems from over-exploitation and extinction. But this function can only be realized when membership to a clan is not just that (membership).

Lessons from the Traditional Approaches

The scholarly world holds varied opinions on the significance of indigenous knowledge today. Hoppers (2004) observes that modern development tends to privilege scientific knowledge over other forms of knowing and that Science tends to 'hegemonise' other forms of knowledge either by 'museumising' them into ghettos, or by treating them as occult or oriental or primitive superstition.

However, though a number of scholars look at traditional knowledge as primitive and poorly situated in informing today's development process (Howes, 1979; Howes and Chambers, 1979; Warren, 1991; Agrawal, 1995; Mitchell, 1995; Ellen and Harris, 2000; Herbert, 2000, cited in Briggs 2005), it is nevertheless revered by others as rich in values and practices still relevant today. Certainly "... not all indigenous practices are beneficial to the sustainable development of a local community" (Nyong *et al.* 2007, p.795). In this section I am objectively looking out, by way of scrutiny, for what we can learn from traditional knowledge for sustainable environmental conservation today.

On grounds of the renewed interest in indigenous knowledge, partly because of the witnessed failures that came with the other methods from without (Agrawal 1995), there is increasing institutionalization of indigenous knowledge through conferences, development plans and a broad, sometimes grudging, acceptance by the development community of its assumed inherent value as part of a shift in addressing the direct concerns of the poor (World Bank & Shepherd, cited in Briggs 2005). Actually, Agrawal (1995) contends that it may even have reached the status of a 'new populist rhetoric'.

One of the reasons why indigenous knowledge is privileged by some scholars is because of its ability to situate local technologies in their social, ecological and other contexts (IIRR & Langill, cited in Hart and Mouton 2005; Nyong *et al.* 2007).

But this may not mean that indigenous knowledge is wholesomely unique and competing with Western science. Briggs (2005) argues that such a binary conception of the two is not only false but also precludes dialogue and learning between them. "Indigenous knowledge should complement, rather than compete with global knowledge systems" (Nyong *et al.* 2007: 788). As noted by UNEP (2008), the key concern should be on how to integrate IK with scientific/modern knowledge. "Modern science is more acceptable to the indigenous communities if it is integrated with what they know" (UNEP 2008, p.26). Scientific weather forecasts, for instance, may be more credible to local the communities if ways are found to integrate them with the IK that they have relied on for generations to predict and cope with droughts, floods, and other natural hazards. Unfortunately,

...development approaches in Africa seem to focus mainly on the introduction of modern knowledge systems by replacing traditional or indigenous knowledge. This has not proved very effective as it is based upon the 'concept of substitution' and tends to reject traditional values, which are normally the main social asset of the poor (Pidatala and Khan 2003).

In the mutual reliance of traditional knowledge and modern science, Briggs points out the often cited advantage of indigenous knowledge over Western science whereby in the former information is tested in the context of survival, and hence is not just true or false in some dispassionate way (as in the latter), but is either more or less effective in providing the means of survival. He notes the argument that, for being pragmatic and utilitarian, the indigenous tests by effectiveness make more meaning in everyday life and can therefore be easily attached to by people.

However, Briggs criticises the above view by indicating that even western knowledge is socially constructed and may only

be unappealing in some contexts because it was constructed in a different and sometimes irrelevant setting. This echoes Okere *et al.*'s (2005) argument that all knowledge is local in the first place and therefore needs to be interpreted and appreciated in consideration of the context within which it emerged. By local knowledge, they refer to "any given culture's unique genius, and distinctive creativity which put a most characteristic stamp on what its members in their singular context and history meaningfully develop as knowledge, epistemology, metaphysics, worldview" (2005: 3).

We earlier noted that the traditional ecological system is basically ecocentric in outlook. As in the Gaian^{iv} perspective, it is viewed as an interrelated whole (system) in which all the parts play a significant role and are therefore worth protection. The strength that comes with this approach is in maintaining ecological balance and stability. On the other hand, in a disenchanted world, there is no meaningful order of things or events outside the human domain, and there is no source of sacredness or dread of the sort felt by those who regard the natural world as peopled by divinities or demons (Stone 2006, cited in STANFORD ENCYCLOPEDIA - Online). When a forest is no longer sacred, there are no spirits to be placated and no mysterious risks associated with clear-felling it. A disenchanted nature is no longer alive. It neither commands nor deserves respect, reverence or love. It is nothing but a giant machine, to be mastered to serve human purposes. But in the traditional ecological system, 'living nature' comprises not only humans, animals and plants, but also mountains, forests, rivers, valleys and stones. This is a great strength in IK for environmental conservation. But whether it remains viable today calls for deep contextual analysis.

Limitations of Traditional Knowledge

It was indicated in the Context of the study that a romantic approach to IK is avoided in this study. When IK is over-romanticised and over-valorised, the ensuing weakness is that indigenous knowledge tends not to be objectively problematised, but is seen as a flawless 'given', almost a benign and consensual knowledge simply waiting to be tapped into (Briggs 2005). Like any other type of Knowledge, IK has its own weaknesses (UNEP 2008). To avoid a limiting approach, this section of literature review explores the limitations of IK that, in some cases, overshadow its relevance for today.

One of the biggest circumstantial limitations of IK is that of imperialistic distortions. Distortions that have created bias against traditional knowledge play a great role in limiting trust, belief in and regard for the latter. Colonialism is responsible for a number of such distortions in forms some of which are still prevalent today. The philosophical character of European colonization was the intent of Europe to impose its conceptions of reality, knowledge and truth on the colonised Ramose (2002). The humanness of Africans was called to question and this determined how Africans and their values were treated.

European Philosophers, such as Fredrick Hegel in his *Philosophy of History* and Immanuel Kant, passionately argued that black Africans were 'pre-logical' and incapable of reasoning and self-civilization. As such all African practices were bundled together and dismissed as worthless and unqualified for knowledge. Africans were thus denied of their intellectual heritage (Ajei 2007). Africans were taught that everything indigenous is inferior to what comes from Europe. IK was referred with phrases such as "primitive, backward, archaic, outdated, pagan and barbaric" (Ocholla 2007: 3). It was deliberately sidelined and given no place in colonial

formal education, which was mainly preoccupied with indoctrination and inculcation of Western values.

Many products of such a system have grown to despise traditional knowledge as primitive and not worth associating with. Thus, Ocholla observes, a person utilizing IK is supposedly inferior to the one using Western/modern knowledge and the former is often stigmatized. This form of marginalization has produced a generation that barely understands, recognize, appreciate, value or ready to use IK.

Though it had some benefits, the Western formal education introduced in Africa came with another unfortunate consequence on IK. Because the main language of dialogue was of the coloniser, the rupturing of the generational link was completed by cutting off the voice of the elders and other experts. Through the strategic linguistic and literary re-routing, the young generation was severed from ongoing critical dialogue with their elders/ informal intellectuals (Okere *et al.* 2005). Until today in Uganda, a number of 'educated' youths are shy of speaking their mother tongues and can hardly sustain a conversation with the local elders who did not go to school.

The less regard for traditional knowledge can also be understood within the framework of power struggles between knowledge systems or the 'politics of knowledge'. Indigenous knowledge is in some cases relegated to a bottom position in order to maintain or impose authority of Western knowledge (Briggs 2005). Briggs observes that by accepting that there is a legitimate indigenous knowledge as a viable alternative to western scientific knowledge in particular locational contexts, the authority of external knowledge providers is seriously threatened. To maintain the hegemony of development planning strategies based on Western science and the role of the expert, indigenous knowledge has to be depicted as

barren. As such, even research on indigenous knowledge may be discouraged or suffocated.

Still in the line of the politics of knowledge, the question as to whose knowledge counts has to be addressed even within the local context with reference to IK. The mere fact that IK has been used in a given setting for a number of years does not necessarily mean that it is appropriate and devoid of problems even within that setting. Kapoor (cited in Briggs 2005) notes that because indigenous knowledge is so empirically rooted, scholars and practitioners tend to ignore power, legitimacy and gender politics, and therefore there is no check on whose view might be the legitimate one. Some marginalised sections of the community (like women and the disabled) may come to own views of the broader community only because their voice is muted and that they can only survive by subscribing to the views of the majority. This might give a wrong impression that the whole community subscribes to what is presented as that community's indigenous knowledge. This therefore reminds the researcher to be very keen on the politics of knowledge in the analysis of the study findings.

There also persists a sceptical feeling that somehow IK is too place-specific to be of much theoretical use or, indeed, of much developmental value beyond these particular locations (Briggs 2005). This has not been helped by the stereotype of IK as mainly associated with the poor (Ocholla 2007) and developing countries hence giving the impression that it can only or, at best, work in such communities.

UNEP (2008) also advises that, though IK may be of vast importance, we should be very critical in analysing it. In some cases, for example, it involves prescribed injustices in its taboos. For instance, the taboos that unjustifiably forbid women from eating certain foods. Also IK may have anachronistic aspects that worked well in the past but that cannot work with the changed environment and society. Any

research into the relevance of IK for today has to be keen on such aspects so as to be valid.

My literature review has come up with some foundational ideas to inform and enrich the study. I have also identified some gaps to be filled with the field findings in the following chapter.

Insights from the Field

This chapter entails both the presentation of the raw findings of the study and their respective analysis. The combination of the presentation and analysis in one chapter is meant to allow the work to flow and make it easy for the reader to follow. Efforts will be made to render distinct both the raw findings and the analysis.

To ensure focus, the findings will be presented in order of sub-sections drawn from the research questions that the study sought to answer. However, some of the themes (sub-headings) emerge from the data collected.

Baganda and their Environment

As it is located in the equatorial zone, Buganda has a very rich environment in terms of biodiversity. This wealth is wealth is in terms of biodiversity. Though a number of these environmental features are being destroyed today, the area has Lakes (including the biggest Lake in Africa, L. Victoria), rivers, swamps, natural forests, hills, wild animals and several bird species. Most of these are meticulously named, an indicator that they are known and not taken for granted. I did not come across any bird, animal or plant species that the elders were not able to identify by name, if it was in their locality. One of the elders, Omutaka Maaso, 94, from Buggala Island (in L. Victoria) said:

... we learnt these names from our parents and elders since they featured in their narratives and in our day to day activities like fishing, farming, hunting and building" (interview on February 19, 2011).

The environment is traditionally very vital in the lives of the Baganda. This is mainly because it is an indispensable 'life support system'. For most of the basic needs, it was the environment to provide. Medicine to several ailments was acquired from there in the form of herbs. A respondent from Nkozi village recalled: "most of the grasses, trees and some animals such as the hyena [its stool] were known to be medicinal, and these herbs worked well for us" (interview on February 12, 2011). Food would also be collected from forests in form of wild fruits, roots and game. Kaliisa, 84, from Butozi village, who used to be a hunter, says that they used to have enough supply of bush meat because there were plenty of edible wild animals. It was also noted that all building materials were from the environment. These included soil, poles, thatch (grass), reeds and banana fibres. Clothing was from animal skins and trees (as bark cloth). People also depended on the environment for lighting and fire. Zidoolo, 73, one of the Nkozi respondents illustrated to me how they would they would light fire by rubbing sticks (*obulindi*) against each other between dry grass. For lighting, it was dry reeds that were lit while bundled together. As shall be seen in sub-section 4.3.1, it is thus no surprise that the environment was deified. In such a setting, there was every reason to jealously protect the environment for the 'mother' it was.

Traditional Baganda Methods of Environmental Conservation

The data presented and discussed in this sub-section answers the first subsidiary question of this study which sought to find out the traditional Baganda methods of environmental conservation. Establishing them would later serve as a basis for ascertaining their relevance today.

It was established that in different places covered by the study the methods used for conservation are generally the same. It should be remembered that though this study was

specifically about the Baganda, the ethnic group occupies a very big area and, as such, differentials come in. Respondents were drawn from different areas mainly going by environmental features, that is, Lakes, swamps, forests, and hills. Some few location-specific variations were identified but these still fit in the general framework of myths, taboos, religion, agriculture, leadership, clan systems, communitarianism, and discipline. These were the overarching themes that I drew from the data. Comparatively, I observe that these themes appear to be common in most African indigenous knowledge systems (see Mbiti 1969; Briggs 2005; Ssentongo 2010b). Data will be here presented according to the above themes.

Myths, Taboos, Religion and Conservation

A combination of myths, taboos and religion was found to be very central to environmental protection. This was raised by all the interviewees and I also observed it in most of the areas of Buganda that I visited. I also remember that they featured so much in the stories I was told in my childhood. I found out that there is no clear line between myths taboos, folktales and religion. They are so interconnected and, as such, the presentation here will not attempt to dichotomise them.

Myths are stories about gods/God and other supernatural beings in line of the human relationships with them. Such stories often serve to explain society and environment with the help of taboos that are, in most cases, incorporated into a body of religion. Such religion is not institutionalised but covers almost all aspects of life. It is in this regard that Mbiti (1969) views traditional Africans (the Baganda in this case) as 'notoriously religious'. Though myths are commonly known to be synonymous to untruths, from this study I argue that, in pragmatic terms, myths have their own truths. They provide people with a view of the world and a set of values that can be

as important as or close in importance to any scientifically verifiable fact. And, in the interpretivist paradigm, "... what is true is not the details of the story [myth] itself but the deeper meanings which become present to both teller and listener only in the act of telling" (Waardenburg 1980, p.53).

In most of the areas I visited, I would always find a mystified element of the environment with some story/ies about it. In Ssesse Islands, the two respondents told me of forests from which it was not allowed to fetch firewood or cut any poles for whichever use. If one went against this rule/norm, it was said that they would face undesirable consequences such as losing their way out of the forest, losing their children or even death. According to Maaso, one such forest was called Buggo.

You could not cut a pole from Buggo where the stick of authority [ddamula, for the Buganda Kingdom's Prime Minister - Katikkiro] was supposed to be cut ... [and] there were forests where it was not allowed to defecate.

Maaso says that some of these forests were inhabited by spirits (*emisambwa*) which would sometimes be heard talking at night during dark periods or which would be heard hunting with dogs and bells - such as the hunter-spirit Misansala from Kasaka in Masaka District. The said presence of such spirits raised more fear and respect from people for their dwelling places (forests, swamps, lakes, hills, and rivers). This was especially because the former were said to be ruthless once annoyed. No one would therefore risk facing their wrath.

In Nkozi, a resident told me of a bush, Gawuluguma, from which it was also not allowed to fetch firewood. Its caretaker is Zidoolo. Traditionally, "Gawuluguma was used for rituals against epidemics like measles", says Zidoolo.

Whenever epidemics broke out in the area, people would converge at the bush, each with a piece of firewood which they

would burn as they pleaded with ancestors and spirits to take away the diseases... and the diseases would certainly stop thereafter. If anyone picked firewood from this bush, their food would either burn or be half-cooked (Zidoolo, Interview held on February 13, 2011).

Zidoolo narrated a recent (around 2005) case of a young fish trader who settled in the area and fell victim to Gawuluguma's spirit because he stubbornly picked firewood from the bush for smoking his fish.

As the man was in the house attending to other things, all the fish worth sums of money got burnt. He later shifted from the village...and I hear he died under mysterious circumstances.

The bush remains intact up to today and can be seen to be bigger than other bushes around. Though the rituals are no longer carried out around it, reverence for it remains among the people in the community. Regardless of its truth value, it is the mystery around it that has helped conserve Gawuluguma. According to Zidoolo, even now, "no one can dare pick firewood from that bush".

I observed a number of other trees around Buganda that are considered to be places of abode for spirits and thus not cut, some even in roads. Most prominent of these is a tree called Nakayima in Mubende District (see Appendix 6b).

In a sense, the bush/forests/trees mentioned above were considered sacred. Stories would be told of those who violated the rules and what consequently befell them. In effect, regardless of the truth of the stories, a sense of fear and respect was created among the people. In this way, these forests were protected from destruction or over-exploitation. "Many of these taboos were ... instituted to engender good moral behaviour in society and were seldom challenged" (Otiso 2006, p.25). Once the mysteries around the taboos and myths were watered down, this would mark the beginning of

destroying/over-exploiting the environmental features. Stone (2006, cited in Stanford Encyclopedia - Online) explains that when a forest is no longer sacred, there are no spirits to be placated and no mysterious risks associated with clear-felling it.

Some writers argue that oriental/primitive communities mystify realities that they fail to explain (Gadgil *et al.* 1993). What is not understood or what invites awe becomes a manifestation of a deity or a supernatural power. In this framework of explanation, it would be said that the trees, bushes, rocks, caves, lakes and rivers that are said to be homes of spirits are so conceived because their physical complexity cannot be explained. For example, Nakayima's hugeness combined with breast-like features provide ground for its 'supernaturalisation'. The god Mukasa's cave shrine (Appendix 6a) could also be explained in terms of the fear it arouses.

However, though this framework of explanation could be valid in some cases, it may not serve to explain features that were mystified ever since they were of no physical uniqueness like the trees in front of Mukasa's shrine and Gawuluguma. It is true that their mystification has helped protect them but not necessarily the case that they are mystified because they are not understood. Actually, in some cases (as with forests said to be occupied by spirits), the mystification seems to be a deliberate method for protection (Shorter 1998; Otiso 2006).

As earlier highlighted, the religion of the Baganda was almost part and parcel of every aspect of their life. Their religion was hierarchically polytheistic. In this hierarchy, there is a Supreme Being (*Katonda*) who is the creator of all gods/guardian saints (*Balubaale*), and other spirits of departed ancestors. The guardian saints (*Balubaale*) are more active in human society and, therefore, were more frequently referred to by respondents than *Katonda*. Each *Lubaale* presides over the

area/activity he/she excelled in while alive. Thus, there is a *lubaale* for earthquakes, physical handicaps, game hunting, lakes, rain and harvest (Otiso 2006), and so on. The *Balubaale* have shrines in different parts of Buganda.

In Ssesse Islands, one respondent told me that early this year (2011) there had been concern among fishermen that the fish catches were diminishing. It was believed that this was due to the god Mukasa's displeasure.

People converged at Kisaba (Bukasa Island) where the god's shrine is and called upon the god's intervention..., soon after this ceremony the fishermen's catches started increasing (interview held on February 19, 2011).

At the entrance of Mukasa's shrine, there are trees that are not supposed to be cut because they are believed to be attached to the cave's rock. The place is so revered/ respected that the community very strictly protects it. This would fall into what Pearson refers to as "religiously based forms of native conservation" (1989, p.306).

Since these gods were believed to live in the environment, it was believed that destroying the environment was tantamount to destroying the gods' house. Destroying such places or treating them with disrespect would invite the gods' anger. For example, it is seen above in the case of the god Mukasa that fish catches dwindled because he was not happy. Everyone was brought up as god-fearing. The conservation of the environment was thus based both on the knowledge of its usefulness and on fear. Apparently, "... the peoples use the spiritual beliefs, fears and taboos to reinforce norms of civility and to restrain access and serve to regulate use of the resources" (Edroma 2002, p.119).

Leadership, Clan Systems and Conservation

The Buganda monarchy had a hierarchical arrangement in leadership. In this arrangement, the King (*Kabaka*) was on top of the hierarchy.

Traditionally, there was a lot of respect for the leaders at all levels. This was partly because they were considered to be representatives of the King who was held in high regard. The leadership factor was severally highlighted by respondents as having been key to environmental conservation. If one wanted to farm in a wetland or to cut a pole for construction, they had to first seek the permission of the *Mutongole* (landlord), *Musigire* (the Landlord's assistant), *Muluka* (parish) chief or *mwami* (village chief). In granting them permission, they would also be cautioned to use the resources responsibly and, specifically, just within their needs.

Those who violated the rules would be reported to the leaders who would have them punished. The punishments would range from soft ones such as community service (such as clearing up roads) to severe ones like ex-communication for the notorious ones (Kaliisa).

However, ex-communication was reported to have been less for crimes against the environment. It was mainly for social crimes like theft, witchcraft and murder. In fear of such punishments and getting into the black books of the leaders, many would try to avoid wrong-doing. As shall be elaborated further in section 4.3.4, policing/monitoring was done by everyone. One of the respondents emphasised, "it was everyone's duty to report transgressors to the authorities". This demonstrates that the rules were owned by the community and were perceived to be for their own well-being. If a community does not own or appreciate rules, it would be hard to make them abide by those rules.

Omutaka Maaso and two other elders from Nkozi observed that environmental destruction/over-exploitation was also

minimal because commercial use was almost non-existent. One respondent asked, “where would you sell the poles from the forest? There was no one to buy! After all they could be accessed free of charge.” Moreover, the population size was also still small, hence their needs were limited. The respondents contended that most of the environmental destruction we witness today is due to greed and excessive desire for profits. Unlike in the past where most resources were communally owned and accessed at no cost, today monetary value has been attached to almost everything in the environment.

Of course, with the resources becoming scarce amidst a fast-growing population, competition is bound to rise. This is not helped by the current neo-liberal approach where many things are left to be controlled by the forces of demand and supply. Leaders are shedding off their responsibilities in environmental stewardship, handing them over to Smith’s ‘invisible hand’. An impression has been created that money can buy everything! But the world is gradually realising that there are some vital components of the environment that money can only destroy but not bring back.

In Buganda, every Muganda belongs to a clan. As I introduced myself to each of the respondents, they would immediately identify my clan. Zidoolo exclaimed in excitement, “*Oh, Ssentongo ow’enkima nsanyuse okulaba*” (Oh, Ssentongo of the monkey clan I am so glad to see you). Some would quickly narrate how my clan links to theirs and how, in that chain, I was their son, uncle, and so forth. Clans serve so many purposes among the Baganda (Kaggwa 2005), but this study mainly dwelt on their environmental function. Each clan is symbolized by a totem (*omuziro*) and a supporting totem (*akabbiro*). Most of these are animals, insects and plants. Examples of totems are: monkey, lion, leopard, dog, sheep,

crested crane, grasshoppers, lungfish, edible rat, scorpion, elephant, and so on.

Members of each clan are barred from eating both their totem and supporting totem (Lule 2006). On top of this negative duty (of abstention), they also have a positive duty of protecting that totem. In this way, the totems would not only be protected but it would also help people know and appreciate the flora and fauna around them. No one would want their totem to become extinct. So clan members would want to conserve their totems for posterity. What we observe here could be called 'conservational symbolism'. In other words, with the risk of going circular, it is the use of environmental features as vital symbols but for the sake of conserving those instrumentalised features.

Since the totems included animals, insects and some plants, the clan system also helped to conserve biodiversity (Ssentongo 2010b). I did not establish whether putting in place several clans was deliberately meant to conserve biodiversity. One would even argue that the people had no option at the time than to use environmental elements as totems. However, only to respond to the latter, options were there. In Tanzania, for example, among the Chagga people, I observed while I stayed there (1998 - 2000) that they use people's names to symbolise clans. Therefore, for the Baganda to have chosen to use environmental totems may not be argued to be out of lack of options.

Environmental Conservation through Agricultural Practices

Agricultural practices also emerged as one of the ways through which the Baganda conserved their environment. Unlike in some of the above practices where (in some cases) I could not easily establish whether they were deliberately meant to serve the purpose they were serving, most of the conservational agricultural practices were found to be

intentional. These practices include agro-forestry, crop-rotation, mixed farming and woodlot conservation.

I observed that most gardens of the Baganda were a mixture of crops and trees. These trees were either planted around their land as boundary markers or distributed within the gardens, especially banana plantations. Contrary to UNEP's (2008) view that sometimes such trees were conserved because the rudimentary tools used at the time could not cut them, all respondents insisted that the trees were left there because they were wanted. One elder clarified, "if we did not want a tree, we would not fail to remove it. Where we could not cut it we would remove its bark then leave it to dry".

Most of the trees that were planted or protected^v in the gardens were of identifiable importance to the garden owners. Some were medicinal, some for fruits, some for cloth, some for shades and others for timber. But, on top of their other uses, most of them were also of medicinal value. Among the trees observed were fruit trees such as jack fruit, pawpaw, avocado, orange, mango, *muwafu*, and guava trees. Almost every homestead had at least one of the above trees. It is therefore not surprising that Zidoolo said:

Unlike today, it was unheard of to buy or sell fruits. In Buganda! You would only have to ask and were given by those who had, even if you were a stranger.

Other trees included *mutuba* (*Ficus natalensis*) - which is locally used for making bark-cloth -, *musizi* (*Maesopsis eminii*), *moule* (*Milicia excelsa*), *musambya*, and *muwawu*. *Musizi* and *muoule* were mainly for making crafts, and latter for timber. *Muwawu* is for provision of leaves for scrubbing metallic utensils.

Zidoolo also pointed out that trees were also known to be wind-breakers. Pointing at the grassland behind his house, he said:

From here, one would never feel the wind from the lake [Victoria] because all that was a thick bush. But now all the wind comes straight! It is because we have cleared the trees.

No respondent talked about the importance of trees in climate regulation. Probably such technical details were not known at the time. But “an environment with trees was felt to be better than that without” (Respondent from Nkozi). For the values of trees that were known at the time, trees were conserved and this certainly helped for the realisation of the other values that were not known.

Crop rotation was mainly used in order to maintain soil fertility. According to Omutaka Maaso, “this is not new knowledge as some people may think. It was practiced in the past”. Together with crop rotation, mixed farming was practiced. Gardens would hardly carry only one crop. In a garden of maize they would also plant beans and cassava. It was also believed that this would keep the soils fertile. This had not been scientifically proved through systematic experiments. But in the past all that worked and that which did not would be told through experience in a process of trial and error.

Communitarianism and Discipline in Traditional Conservation

All respondents maintained that Baganda community was essentially communitarian in the sense that there was a strong sense of responsibility and sharing. There were also strong kinship ties. Most environmental resources were communally shared. These include most of the forests, swamps, wells and rivers. Being communal, it was everyone’s responsibility to ensure that they were responsibly used. One elder narrated:

As a child, if an elder found you doing something wrong (like playing at the well), they would punish [beat] you regardless of whether they were your parents. And if you went back home and

reported, you would be punished again... In the same way, when you saw someone cut trees, it was your responsibility to report to the Mutongole (Interview, February 12, 2011- Nkozi).

This corroborates Edroma's observation that in African traditional settings,

... kinship is like a vast network stretching horizontally in all directions to embrace everybody in the group. Everyone behaves to one another according to the accepted behaviour set down by the society. A stranger or defaulter would easily be spotted and apprehended" (2002, p.116).

As highlighted before, since the community relied on the environment for almost everything, no chances were taken in using it.

There was a practice known as *bulungi bwansi* (for the good of the environment) which involved collective activities in clearing roads, cleaning wells or doing any other thing that was for the general good. Asked about how this was conducted, Maaso recounted:

... a drumbeat called saagala agalamidde [no one should be seated] would be sounded by the village chief [omwami]. The drumbeats were different but people knew what each sound meant. So when saagala agalamidde would be sounded everyone knew that there was a community activity to be done and they would have to go for it.

This seems to be a crude form of communication but it was widely effective because it was not selective. It excluded no one, rich or poor, near or far.

The respondents lamented about youths being big-headed today and that this is one of the reasons why many things are going wrong. With nostalgic emphasis, Namirimu (78) says that there was a lot of discipline in the past. Youths listened to their elders and were open to the latter's advice. The discipline

kept the community going because it meant that community rules would be adhered to. Discipline also meant observing norms and taboos in accordance to the community's gender roles. However, in a human rights perspective, there was little room for differing in thought (especially for women and children), except where one would be able to convince the rest to his/her side.

Traditional Baganda Methods of Transferring Environmental Conservation Knowledge from One Generation to Another

Methods of knowledge transfer are very important in environmental conservation. It is here assumed that the more effectively sustainability knowledge is transferred the higher the chances of such knowledge having more influence on behaviour/practice. It is on the basis of this assumption that the second subsidiary question of this study sought to establish the traditional Baganda methods of transferring environmental conservation knowledge. The data that emerged in this regard is presented in this subsection. As with the methods of environmental conservation presented in sub-section 4.3, we shall later (in sub-section 4.6) discuss whether such knowledge can still be of relevance today.

Most of the knowledge of the Baganda is kept alive in customs, norms, stories, songs and names. It is through the above that such knowledge is handed down from generation to generation. The community was the school. Though elders had more responsibility of passing on such knowledge to the young, it was generally every one's duty to teach those who did not know. One Baganda proverb goes '*obukadde magezi*' (old age is wisdom). So much therefore was expected of elders and, partly for this reason, they enjoyed much respect from community members. But, as was observed in the field, the more one knows, the more they are respected. Thus as elders talked about other elders during interviews, it always emerged

that titles like *mwami* (Mr), *mukulu* (elder) were attached to names of those who were considered to know more.

On some evenings/nights, elders would sit around the fireplace and tell stories to the young in a household. These would take the form of folktales, legends and fables in which desired messages/lessons would be wrapped and conveyed attractively. Ssemuwemba, 83, says that these stories were too captivating to be ignored. To ensure that they were kept at heart, the following fireplace lesson would start with challenging the group to retell the previous fireplace stories. And:

we would struggle to out-do others on the details of the story. I tell you my son it was fun and we would always look forward to the next fireplace” (Ssemuwemba, interview on February 12, 2011).

In this way, environmental conservation knowledge would be effectively passed to the young, who would in turn pass it to other peers then and to the generation after them later in life.

There was also a lot of learning by observing and doing. As observed by Kapoor (cited in Briggs 2005), what was learnt was also determined by gender and the corresponding gender roles. Since women were more involved in agriculture than men, they would learn more on agricultural environmental conservation methods through their mothers, elders and other female relatives as they engaged in agricultural activities. On the other hand, Kaliisa noted that hunting knowledge was mainly for men because “hunting is work for men. Boys would thus learn about hunting through participation in hunting with elders”. There was also knowledge for everyone, especially about resources whose use/access was not restricted to any given sex. It is, however, important to note that the gender roles were unfairly distributed, with women taking on more donkey work that was less privileged. And,

Baganda community being mainly patriarchal, women had no say in determining these roles.

Some knowledge was passed on through meaning-laden naming. This applied to people, events, and places. These names carried meaning from generation to generation. For example, L. Victoria is called *Nalubaale* (godly); there is River Mayanja (Mayanja is a human name); Gawuluguma (they are sounding - the lake waves). Such names either referred to the character of the place/feature, the history, significance or/and stature. People would also be given names that signified events or carried environmental messages. The name Basajjamivule (men are *Milicia excelsa* trees) is drawn from a Baganda proverb that: 'men are like *Milicia excelsa* trees, they shed leaves and green up again'. The message is not only in what men should be but also about the *moule* tree. When it sheds its leaves, it should not be cut down thinking that it has dried up. Such naming attracts generations to be curious about the 'story behind', and by finding out they unearth the treasure.

Perception of the Future in Traditional Baganda Ecological Knowledge

Though not the only significant temporal aspect in sustainability, the perception of the future in a people's cosmovision is crucial. This is why, together with intra-generational equity, inter-generational equity is privileged in the concept of sustainable development. For that matter, it was found necessary to investigate how the future is perceived in traditional Baganda ecological knowledge.

Findings indicated that the future took a privileged position in the cosmovision of the Baganda. The way things are done carries an indication that concern goes beyond the present. Asked why they had to conserve the environment, one respondent said:

We have produced children; we have even been blessed with grand children. What would we leave behind for them if we destroyed the environment on which they have to depend?

To her, this responsibility towards future generations partly ensues from the fact that their ancestors had similarly handed over the environment to them in a capacity to meet their needs.

The above moral responsibility is not only towards future generations but also towards and in accountability to ancestors (*ba jajja*). Among the Baganda, the ancestors are not considered to be 'completely dead'. They are the 'living dead' (Mbiti 1969). They spiritually remain around observing everything that happens. It is believed that, when they are not happy about the way things are done, they can bring about misfortunes (such as diseases and poverty) until corrections are made. Hence future generations gain as the current generation tries to appease ancestors.

The future is not as such perceived in terms of many generations to come but in terms of the future of the young generation and their future children. Findings did not indicate any projections into a very distant future. But, by minding about the young generation and their future children, such distant generations would as well be catered for de facto.

However, whereas the Baganda privilege the future, it was found out that their body of knowledge and transfer systems are/were ill-prepared for changes due to influence from external traditions. Of course this influx depends on a number of factors some of which could not easily be addressed culturally. These include Western religion, Western education, increased inter-cultural mobility and globalisation. Traditionally, the Baganda adopted good practices from other people. This would either be done spontaneously or at the King's endorsement. It is, for example, believed that the clan

system was adopted from the Banyoro. But most elders sounded helpless as they lamented about the influx of foreign cultures today. With a disturbed look on his face, Zidoolo said:

Our children are now driven by what they watch on TV and what they hear in school. They shun traditional ways because such ways are considered to be primitive. I do not know where we are headed to with such an attitude. It is good that people like you [the researcher] are picking interest in traditional things and I hope you teach and influence young people to like them. I believe if they are taught in school our young people can appreciate them more. They despise us the old.

Elders like Zidoolo today seem to have conceded that the current politics of knowledge is not in their favour. Having been sidelined from their pedagogical driver seat by formal education (Okere *et al.* 2005), the media and globalisation, they can now mainly participate as spectators. They have little to determine about the future of their children and grandchildren as far as the environment is concerned. Ocholla (2007) rightly notes that a person using IK is often stigmatized because IK is considered to be inferior to Western knowledge.

Lessons to Draw from the Traditional Baganda Approaches

Now that we have established the methods used by the Baganda to conserve their environment, is there any relevance that we can draw from them for today? This is the fundamental question that this section addresses.

Due to changes that have taken place both locally and globally, not all environmental conservation strategies used by the Baganda in the past can still be of relevance today. New knowledge has been acquired about things unknown in the past, populations are far bigger, different peoples are more in touch and mixed up than before, and technologies have advanced. In the knowledge of these developments, some

elders also had their doubts about the relevance of traditional knowledge today. Kaliisa asked: “my grandson, who is going to listen to us in this era? They [young people] have learnt a lot of modern things in school. Things have changed. Can they sit at the fireplace anymore?” Indeed, I agree with Nyong *et al.*, “... not all indigenous practices are beneficial to the sustainable development of a local community” (2007, p.795). But these developments notwithstanding, the findings of this study suggest that there are still some lessons to be learnt from the Baganda’s approaches.

It was observed that environmental wisdom, though to a certain extent determined by social roles, age and gender, was largely available to everyone. It was easier to value and conserve the environment because most people knew the benefits it served. Even if without very scientific precision, they knew the basic implications/ costs of destroying the environment. Even today, it would still be very important that, through the available means, people are made to understand and value their environment instead of just legalistically barring them from cutting forests and degrading wetlands. This may not work as an isolated approach but can certainly contribute to sustainable environmental conservation today.

The communitarian spirit among the traditional Baganda is still of much relevance today. Conserving the environment should be everyone’s responsibility, not just the environmental organisations. We observed that everyone feared to destroy the environment because all members of the community were ‘law enforcers’. This is still possible. Today when we witness someone destroying the environment we just ask: ‘what is NEMA doing?’ it is because we think it is exclusively NEMA’s business despite the fact that we all fall victim to the resultant disasters. This may be connected to ignorance about the value of the environment, especially because today, unlike in the past, very few essentials are directly drawn from the

environment. It may be hard for today's 'supermarket generation' to directly relate with and appreciate the environment.

Communitarianism alludes to discipline, a factor that traditional Baganda fundamentally relied on in environmental conservation. I take discipline to mean 'doing the right thing even when no one is watching'. Most respondents emphasised that, through habituation due to strict enforcement of environmental norms, there was discipline in society in the past. Such discipline would take the commitment of all families and leaders to nurture. These were trusted leaders whose subjects would listen to. They were also said to be exemplary. Not doing what they barred others from doing. Today Government bars people from destroying wetlands while it goes ahead to give investors permission to build industries there (Ssentongo 2010a). Such practice cannot encourage the subjects to use the environment sustainably.

Conserving the environment by arousing fear may not be a viable strategy today. We noticed that once the reason for the fear is no more, people will unsparingly involve in destructive practices. Maaso thinks that the spirits that once lived in the forests disappeared, that is why people destroy the environment and get away with it. However, it appears that the spirits narrative was simply a scarecrow that people later discovered and lost their fear. With the emergence of Christianity, Islam and other religions, the traditional gods are also not feared by many people. Together with other legal environmental conservation enforcement measures, it is therefore necessary to shift from conservation by creating fear to conservation by creating awareness about the environment. One way of doing this is by mainstreaming EfS/ESD in our formal education system right from the lowest levels.

It is very important how we keep the conservational knowledge alive. The oral methods used by the Baganda were quite effective though insufficient for today. Orally, we could use the popular oral media today like songs. These could reach many people, especially through the FM radios which are so many and with wide listenership. As with the traditional folktales, messages can be put in songs that can last for generations. Such an approach can then be backed by documentary methods such as storybooks for primary and secondary schools.

In order to benefit from traditional approaches, it would be important to make people appreciate them. One cannot appreciate what they do not know. I was humbled to realize that there was a lot that I did not know about my own roots yet I knew so much about other traditions. With the current winds of globalisation in the form of homogenization, some people are getting shy about their heritage. The elders interviewed said that youths refer to their knowledge as outdated and primitive. Our education system has not helped. It minimally caters for cultural knowledge (Kanyandago 2010). Instead, schools are more of centers of Westernisation. As part of the programme of mainstreaming EfS/ESD in formal education, indigenous knowledge should as well be catered for.

Looking back at the research process and on the basis of the findings and discussion, the chapter that follows carries reflections on the research questions, the methodology used, and the operational framework. Suggestions for further research and recommendations for action are also given.

Reflections, Conclusions and Recommendations

In this Chapter, I will present my reflections on methodology. These will include thoughts on the theoretical (paradigmatic) approach in view of its appropriateness experienced in the research process. Reflections are also made on the operational framework and research questions. These are followed by suggestions for further research.

Basing on the research findings, the chapter will also highlight the conclusions of the study and, on ground of the conclusions, recommendations will also be put forward.

Reflections

Reflections on Methodology and Methods

The interpretivist paradigm through which this study was executed was found to be very helpful in collecting data and making sense of the findings. More specifically, it helped me understand reality through being keen on details in respondent submissions in search for meaning. I took nothing for granted.

The study specifically targeted elders from rural areas, who are considered to be widely knowledgeable about traditional issues. Though they were indeed found to have this knowledge, most of them were found to be either illiterate or semi-illiterate. This in itself was not a challenge to me, the challenge was in their stereotypical perceptions of formal education in general and research in particular. Having not gone to high levels of formal school, most of the elders perceived research as a highly technical thing to which they

would have no considerable contribution. One elderly woman requested:

We should have waited for my daughter who is a teacher to come back. She would be more helpful to you since she is the one who knows those things for she went to school.

As indicated in the above account, some elders literally underestimated their knowledge and it had to take a lot of confidence-building efforts by the researcher for the elders to be convinced that they had what the research sought. I had an option of conversationally collecting the data without revealing that I was carrying out a research. But this had ethical implications since every respondent has a right to know why they are being approached so that, if they are to consent, their consent would be informed.

Reflections on Operational Framework

Though not significantly compromising the quality of the product, some challenges were faced during the study. One of these was the challenge of balancing research with work, especially because the research period was short. This challenge was more experienced during data collection which required me to be out in the field for some days. Moreover, some of the research sites (especially Kalangala islands in Lake Victoria) deemed suitable were distant from my residence. Due to the time factor, I as well had to use a small sample (eight respondents). Though this does not compromise the qualitative study since it did not aim at generalising the findings, I feel a bigger sample would give a broader picture.

Secondly, the main language used in data collection was Luganda (the language of the Baganda) since all respondents were more comfortable with that. However, the challenge faced here was that some vital Luganda words could not be

translated into English (the report language). For example, the word *akabbiro* (second totem) which is used in relation to totems has no direct English equivalent. In some cases, to translate some words, I would use a number of English words yet still remaining with the feeling that something of the original was getting lost in translation.

Reflections on the Research Questions

Within the scope of this study, the research questions were found appropriate and adequate. The subsidiary research questions, which were drawn from the broad research question, were wide enough to address the research problem. They were also within my time and financial resources.

Suggestions for Further Research

It emerged from the study that the following would require more investigation for the links between traditional and modern environmental conservation approaches to be more comprehensively understood:

1. For each of the identified good traditional practices relevant for today, it is important to carry out a comprehensive analysis on how they can specifically be best incorporated into modern practices.
2. It would also be important to explore the changes that have occurred today and whether they can allow for practices of olden days to be revived.

Conclusions of the Study

Basing on the study findings, I infer that the range of methods used to conserve the environment among the Baganda were quite effective. But it should be noted that these methods were effective in an environment different in a number of respects from today. The population was small, directly reliant on

nature for basic needs and living by experiential knowledge passed on informally. Therefore, the methods they used may not wholesomely be relevant today but there are some practices that could still be either revived or built on today.

Romantic nostalgia may therefore not be called for; instead what is needed is to objectively draw out practices viable for today. The traditional communitarian spirit, for example, is still viable and would help a lot through making environmental conservation everyone's responsibility, not just for environmental organisations. But this should go together with the understanding and appreciation of the environment as the Baganda did. The above submission is partly based on the observation that a number of people today destroy the environment in search for quick gain while they forget (or not realise) that their actions involve high costs.

Recommendations

Basing on the conclusions of the study, I recommend the following:

1. It should be a government policy condition that before implementing any environmental conservation initiative in an area, the concerned local communities should be involved to seek out ways through which their traditional knowledge could inform the programme. This would also assist in building people's confidence in the value of their knowledge.
2. The Ugandan primary, secondary school and teacher training curriculum should integrate elements of traditional knowledge that are still relevant for conserving the environment today. Such an initiative would also involve the deconstruction of negative stereotypes about traditional knowledge and practices. This effort should be spearheaded by the Ministry of Education in consultation with cultural leaders in the different parts of the country.

3. It is important for people to know how they connect to the environment and how important it is to them. Some efforts have been made to create such awareness but there remains the need to broaden the coverage of the awareness programmes. This should involve concerted efforts by NEMA and civil society by use of the media and schools.
4. The elders in different areas need to come together and form associations that would still play the traditional 'fireplace role' but by use of the modern communication media such as radio. Through these associations, they would initiate traditional knowledge programmes and sell their ideas to the public. To be more effective and sustainable, such associations would require the backing and motivation from local governments.
5. Basing on the observation that the family is a very important center of education among the Baganda, parents should embrace their traditional role of educating their children about the environment. This would help in shaping the children's respect to their environment right from their formative years. Otherwise it may be very hard to influence people's attitudes and behaviour in adulthood when their value systems are already ill-oriented.

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Notes

ⁱ http://portal.unesco.org/en/ev.php-URL_ID=5065&URL_DO=DO_TOPIC&URL_SECTION=201.html Accessed on 13th April 2010.

ⁱⁱ A myth is a made-up story that explains the existence/ rationale of a natural phenomenon (Yolen 2009) — such as where thunder comes from, why some forests have to be conserved, or why there should be intergenerational justice.

ⁱⁱⁱ From http://www.google.co.uk/imgres?q=Ploceus+spp.&hl=en&client=firefox-a&hs=yGm&sa=X&rls=org.mozilla:en-US:official&tbn=isch&prmd=imvnsb&tbnid=48xKfcwok0L32M:&imgrefurl=http://images.mitasites.com/illustration/northern-masked-weaver.html&docid=EK38_eY3fit1TM&itg=1&imgurl=http://farm8.static.flickr.com/7007/6586925677_b9b8bef04b.jpg&w=500&h=333&ei=zIb1T9jnMYKL8gO3_Z2fBw&zoom=1&iact=hc&vpx=391&vpy=333&dur=625&hovh=183&hovw=275&tx=139&ty=129&sig=114474448257950614192&page=4&tbnh=126&tbnw=181&start=60&endsp=22&ved=1t:429,r:8,s:60,i:290&biw=1024&bih=629 [viewed on July 5, 2012].

^{iv} According to the Gaia hypothesis, the universe is a system all of whose parts are interrelated and connected to each other. As such, interference with the parts would lead to interference with the whole system.

^v Some trees are not planted by the garden owners but, where found useful, are protected after they are found growing in the gardens.