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Knowledge as Power or Shackles: Acceptability Challenges of Indigenous Knowledge Among Local Community Members in Uvinza District, Tanzania

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Abstract

Knowledge is power; yet there are times when the knowledge apparently considered to be power can be shackled. This paper shares findings on acceptability challenges facing the use of knowledge of localities in conserving the Malagarasi-Muyowozi wetland resources in Uvinza District, in the Western part of Tanzania. Through a case study design, mixed methods approach was used, in which interviews and questionnaires were used to collect data from 1148 local community members from five villages in the area. The findings revealed that indigenous knowledge is used and accepted in conserving the wetland resources in the area. However, the findings indicated that the knowledge is not respected as the case is with the western-based knowledge. Holders of indigenous knowledge feel inferiority and they sometimes it. The paper stands in the position of advocating for creating awareness among the community members on necessity of respecting, using and sharing their local-based knowledge for them to be beneficial and liberative as they strive to earn their livelihood through interacting with their surrounding wetland resources.

Keywords: *knowledge, indigenous knowledge, wetland management*

Introduction

The sense that 'knowledge is power' is a famous quote attributed to Francis Bacon, who wrote it in 1597, as expounded by his secretary, Thomas Hobbes, in the Leviathan version of 1668 (Cortes-Ramirez, 2014). However, as Vedarthan (2022) cautions, knowledge becomes power if it is actioned; if not in action, it is just a

potential power. He adds that what makes knowledge power is its application. Unused knowledge is likely to be a potential power or to act as a shackle to the knowledge holder. The same applies to the knowledge held by local communities. It can be used to manage locally available natural resources.

The literature suggests that long-term experiences held and used by local communities are increasingly recognized to be important in ensuring the management of natural resources. Scholars (such as Nawe & Hambati, 2014; Rosli et al., 2018; Oviedo & Ali, 2018; and Hoagland, 2017) maintain that such indigenous knowledge is very useful in sustainably managing natural resources. Their promotion and use strengthens the local communities' basis for decisions and livelihoods. The knowledge is thus their power since, as asserted by Innerarity (2012), they support economic productivity and the social legitimation of political decisions.

Use of indigenous knowledge use has been increasingly advocated worldwide in natural resource management since the end of the 20th century (Williams, Sikutshwa & Shackleton, 2020). The United Nations Conference on Environment and Development in 1992, the Convention on Biological Diversity, the Sustainable Development Goals (SDGs), the Ramsar Convention on Wetlands, and other international and national policies and enactments capitalize on the importance of ensuring the participation of local communities in promoting the sustainable management of resources (Ayaa & Waswa, 2016; Oviedo & Ali, 2018). In developing countries, indigenous knowledge is considered necessary for the effective management of natural resources (Asmamaw et al., 2020).

Towards the end of the 20th century, the term indigenous knowledge came to be viewed as local knowledge that is unique to a given culture, society, or the knowledge used by local people to make a living in a particular environment. References are made to Warren (1987) and Warren (1991). The conceptualization of indigenous knowledge was adopted by the United Nations Educational, Scientific, and Cultural Organization (UNESCO). More specifically, this article adopts the term conceptualized by Senanayake (2006), who views it as knowledge rooted in a particular place and with a set of experiences generated by people living in that place and gained through practical engagement in everyday life. In this sense, indigenous and local knowledge are used interchangeably, and sometimes the two are coined together as indigenous and local knowledge.

When walking along Senanayake's (2006) line of argument, one finds that indigenous knowledge is considered the social capital of the poor, especially those

living in rural areas, because it is their main asset to invest in the struggle for survival. To realize this important capital, they must put it into action. He continues to argue that when the poor fail to put it in action because of the intrusion of foreign knowledge and development, it disappears. He goes further that the tragedy of the disappearance of this knowledge system is most obvious to those who have developed it and made a living through it.

In many African communities, indigenous knowledge faces difficulties in working with modern Western-based scientific knowledge (Wu 2017; Nguyen & Ross, 2017; Ross et al., 2011). Kodirekkala (2017), for example, argues that foreign knowledge is forcefully transmitted in strong and systematic institutions through which masses of community members, especially children and youth, are compelled to go through, thus causing weakening and loss of valuable indigenous knowledge that is basically voluntarily and informally transmitted. He adds that knowledge also disappears because the young who are in contact with the outside world embrace the view that traditional ways are illegitimate and irrelevant.

Indigenous knowledge and modern Western-based knowledge are perceived as antagonistic, with unequal power relations. Bohensky et al. (2013) find that the two knowledge types are located at the two ends of the continuum and are greatly influenced by the power relations among them. Diawuo and Issifu (2015) and Briggs (2013) stress on the same points that Western modern science and traditional and indigenous knowledge cannot be easily combined because they are antagonistic, as they belong to different worldviews with unequal political power bases. These situations are likely to cause community members to disvalue and forsake the knowledge they possess, because they perceive it as useless or unwanted.

This study dwelts on scholars' attestation that knowledge not in use is useless. Vedarthan (2022), for instance, argues that knowledge not in use is a potential power, and if time goes on without using it, it ceases to be knowledge. In this regard, he developed a knowledge–action matrix (Figure 1), which has a knowledge axis and an action axis, with four categories of people in relation to possession and use of knowledge.

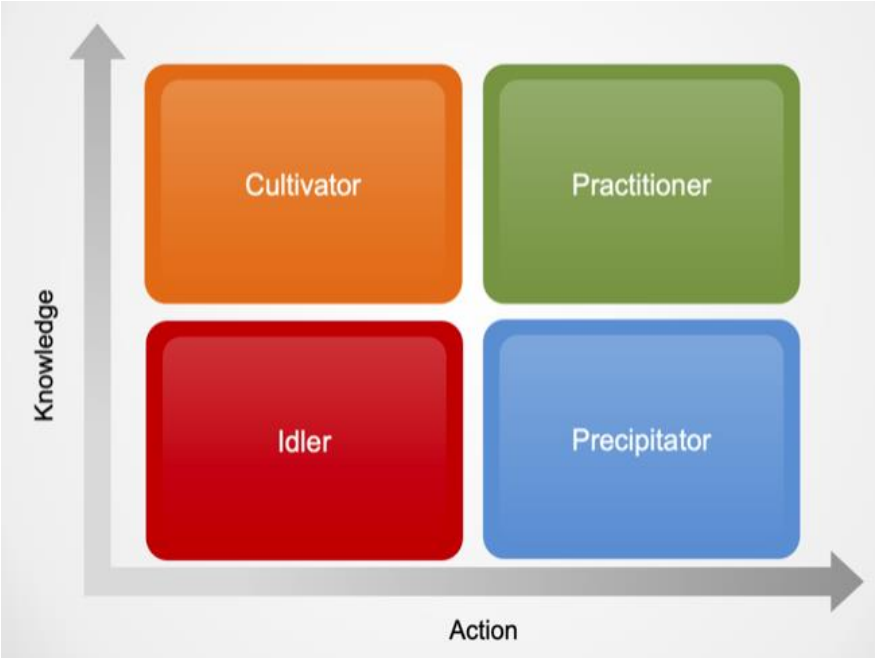

Figure 1: Knowledge-Action Matrix

Source: Vedarthan (2022)

In Vedarthan's (2022) category, idlers are people who do not have knowledge and who do not have actions. To him, this is a category of people who do not want to learn or act. They are idle. Unless they change, they are left behind. Moving in the arrow of action without knowledge is the second group: those who are acting without having the right knowledge of what they are doing. These are precipitators. They work hard to accomplish the tasks without having the appropriate skills, ending with uncertain outcomes. They are eager to work hard but end up with some sort of precipitation. Cultivators follow the direction of knowledge without actions. They search and acquire knowledge but do not put it into action. They know, but they do not benefit themselves or others from this knowledge. Practitioners combine knowledge and action. They acquire knowledge and act based on it. Knowledge is both useful and powerful.

Government institutions and agencies are usually composed of officials guided by Western-based knowledge. They are not rooted in local people's knowledge (Mercer, 2010); as a result, they fail to translate local knowledge into scientific language, ending up considering it irrelevant and superstitious (Nguyeni & Ross, 2017). Consequently, modern Western-based science is granted by governments with greater power through which it controls local people and their knowledge, and has the power to deny or restrict the use of local knowledge (Mazzocchi, 2018).

This trend is likely to cause the mass of local community members to abandon their long-time traditionally held knowledge and become cultivators, or to adopt foreign Western knowledge.

One clear area in which indigenous knowledge is used is the management of natural resources. The use of indigenous and local knowledge has been increasingly recognized and valued in the management of natural resources in Tanzania (Wilson et al., 2017). Such resources include wetlands, which occupy approximately 10% of Tanzania's surface (URT, 2014). The wetlands include major river networks, deltaic mangrove areas, inland drainage systems, and the great lake system (URT, 2014). As the Malagarasi-Muyovozi Wetlands are the first and largest Ramsar wetland sites in the country, they are likely to provide an example of the applicability of indigenous knowledge alongside Western-based knowledge.

Wetlands, which are the transitional land between terrestrial and aquatic systems and are usually covered by shallow water (Iyango et al., 2005; Rosli et al., 2018) are among the natural resources that play a vital role in the lives of local communities worldwide. The wetlands, which are said to be biodiversity 'hotspots' ascribed to be 'the kidneys of the landscape' (Hamisi et al., 2012) and 'biological supermarkets' (Raburu et al., 2012b; Hamisi et al., 2012), are the so fragile resources that it requires great attention to conserve them. Their services and provisioning, regulating, cultural, and supporting functions support the livelihoods of surrounding communities (Raburu et al., 2012a; Rosli et al., 2018). Owing to their importance, efforts are increasingly being made to involve the surrounding local communities in conserving them. These efforts include the utilization of indigenous knowledge.

Literature on the use of indigenous and local knowledge in the communities in and around the Malagarasi-Muyovozi Wetlands is scant. Similarly, there is insufficient literature on the challenges faced in using indigenous and local knowledge in the area. In this context, Kashaigili and Majaliwa (2013), who reported the degradation of the Malagarasi Muyovozi wetlands, found that they declined by 45% from 1984 to 2002. The fact that these large and first-designated Ramsar wetlands are facing degradation, with the prevailing contradictory views on whether indigenous knowledge is used or not, drives one to seek an understanding of the challenges faced in accepting their use. The objective, which makes the focus of this paper is to assess challenges faced in accepting use of indigenous knowledge in wetland resource use in the area.

Methodology

Study Site

This study was conducted in the Uvinza District, Kigoma Region. The area (Figure 1) is located in western Tanzania. It is in the Lake Tanganyika Basin between Latitude 5^{o} and 17°S, and Longitude 31^{0} and 48°E (Ramsar Secretariat, 2020). Communities around the Malagarasi-Muyovozi wetlands were selected because they were perceived to offer long-term experiences emphasizing the use of both indigenous and Western-based knowledge because the wetlands are internationally recognized. The Malagarasi-Muyovozi wetlands form the largest Ramsar wetland site ecosystem in the country (Czerniak, n.d.) and just second in Africa only to the Okavango in Botswana, Angola and Namibia. They were the first wetlands of international importance to be designated in Tanzania under the Ramsar Convention (URT, 2014). They are located in a vast and complex riverine floodplain in the basin, which drains an area of 9.2 million ha (about 10% of the whole of Tanzania). Moreover, they are located in the basin of Lake Tanganyika, the deepest lake in Africa with a maximum depth of 1,470 m (the second deepest lake in the world), the largest lake in Africa, and the second largest lake in the world by volume (Miriti, n.d.). The wetlands cover an area of 32,500 km^2 and are composed of permanent swamps and seasonal freshwater lakes.

The area around Lake Nyamagoma and Lake Sagara was selected as the study area because they have the two largest lakes in the Ramsar site, which provide varieties of use by the local communities. It was also preferred because it was more easily accessible than other areas at the site. The area is located in the administrative region of the Uvinza District in Kigoma Region.

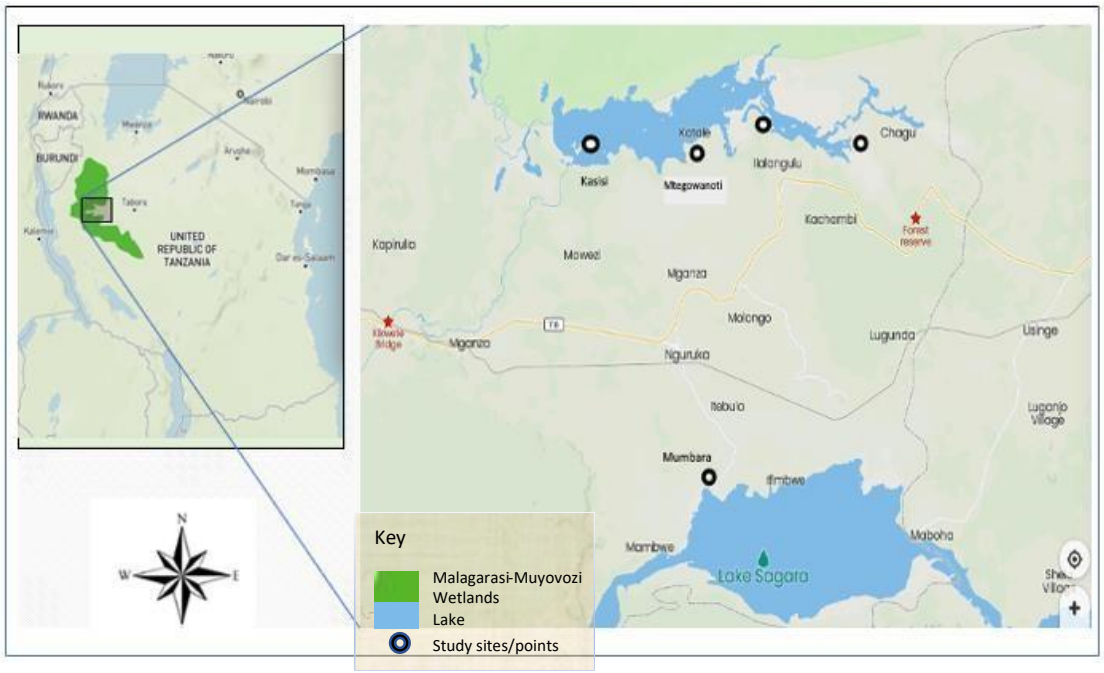

Figure 1: Location of the study area

Source: Modified from Ramsar Secretariat (2020) and Google map retrieved on 19/10/2021 from https://mapcarta.com/12646346

Study Design

This study employs a case study design in which both qualitative and quantitative approaches are used. A case study is usually employed when there is a need to obtain in-depth information on an issue, event, or phenomenon in its natural real-life context (Crowe, et al., 2011) and in a specific geographical area. Since this research approach is usually employed to generate a multi-faceted in-depth understanding of a complex issue (Crowe et al. (2011), it was found suitable for this study.

Sampling

All members of the communities surrounding two lakes (Sagara and Nyamagoma) were included in this study. All five villages surrounding the lakes were involved: Itebula village around Lake Sagara and Kasisi, Mtegowanoti, Ilalanguru, and Chagu villages around Lake Nyamagoma. The villages were selected based on the fact that they were bordered by any of the two lakes. Each of the five villages had one sub-village purposefully selected based on the criterion of neighbouring any of the lakes. The five sub-villages had 1129 households, which were used as the units

of analysis. All households were involved in the study, from which heads of households or their representatives were used as research participants. In addition, fourteen (14) holders of indigenous and local knowledge who were identified through snowball sampling and five (5) local government officials at village and ward levels who were obtained through purposeful sampling were also involved as key informants. Thus, the total number of participants was 1148.

Data Collection

Data were collected through in-depth interviews and questionnaires during these two phases. The first phase was a preliminary study aimed at collecting general information on the task of preparing interview questions and a questionnaire. Then, in-depth interviews were conducted with the 19 key informants and questionnaires to the 1129 household representatives. Questionnaires were distributed to every household, from which the head of the household (or his representative) filled one, and were then collected.

Data Analysis

Thematic data analysis was used to process qualitative data, in which systematic data familiarization and organization were performed. The responses were read several times and filtered. The data were categorized into specific themes with similar information, and then divided into sub-categories. Descriptive analysis was done for quantitative data, on the other hand, where data were organized, coded and entered into Statistical Product and Service Solutions (SPSS) to produce frequencies percentages and run cross tabulation on participants' distribution.

Results and Discussion

The findings on the acceptability challenges faced when using indigenous knowledge in the study area are presented in two sections. The first section focuses on the general acceptance of indigenous knowledge. The second one is concerned with the challenges in the acceptability of indigenous knowledge.

Acceptability of Indigenous Knowledge

The researcher examined how community members accepted indigenous and local knowledge. The interest was motivated by the understanding that the acceptability of knowledge contributes to determining the extent to which knowledge is used. The degree of acceptance of indigenous knowledge was examined through a question that asked respondents to indicate whether the use of indigenous

knowledge is accepted in wetland resource use and conservation. A list of different wetland uses and conservation practices was supplied to them for this purpose. By assessing the acceptance of using knowledge, the researcher could perceive the value attached by community members to use indigenous knowledge specifically. Table 1 presents a summary of the responses.

Table 1: Responses on acceptance for use of indigenous knowledge in different wetland use

S/N	Wetland Use	Yes		No	
		Frequency	%	Frequency	%
1	Irrigation	459	41	670	59
2	Hunting	15	1	1114	99
3	Hand crafts	1102	98	27	2
4	Using wetlands for worshipping	902	80	227	20
5	Agriculture	500	44	629	56
6	Livestock grazing	420	37	709	63
7	Bee keeping	207	18	922	82
8	Making of boats/canoes	129	11	1000	89
9	Making of local fishing net	34	3	1095	97
10	Local methods of fishing	63	6	1066	94
11	Local healing	1102	98	27	2
12	Weather forecasting	112	10	1017	90
13	Rain making	12	1	1117	99
14	Preventing rainfall	54	5	1075	95
15	Prevent crime such as theft	180	16	949	84

Source: Field data

The results indicate that indigenous knowledge is permitted and accepted for use to different degrees in different wetland uses. In some uses, knowledge is highly accepted compared with others. The use of indigenous knowledge is highly accepted in handcrafted crafts and local healing (98% each). The use of knowledge in worshipping followed (scoring 80%). Their use in hunting and rainmaking, on the other end, seems to be allowed to a very small extent (1% each). From the least, it followed the use of knowledge in making local fishing nets (3%) and local fishing methods (6%).

Through the interviews, different types of indigenous knowledge were reported. In handcraft, for example, some community members have knowledge of weaving leaves and other plant materials to produce mats and baskets. Some community

members have been reported to specialize in using wetland resources, especially clay, plants, and animal and insect organs for healing. The researcher visited the home of a local healer specializing in broken bones and witnessed patients who were lodged at home seeking his service. The respondents reported that the service provided by the local healer was reliable and that people healed. Indigenous knowledge use in agriculture is dominant, although the respondents were unsure about which agricultural practices are peculiarly indigenous and which are not. They are used to clearing lands using machetes or fire; they have knowledge of tilling the land using hand hoes and, from their long-time experience, they know which crops are intercropped and which are not. During irrigation, local community members have knowledge of digging canals across their fields to ensure the availability and drainage of water.

Participants' responses indicated that hunting was forbidden by the government to be carried out by local community members without being licensed. This may have been the reason why the score was 1%. Rain-making was reported to be in the realms of what many community members perceive to be superstitious; its practice is considered to be witchcraft. Community members do not wish to be perceived as engaged in witchcraft. Permission or freedom to use indigenous and local knowledge in the rest of the uses is distributed between those ends.

The interviewees were also asked to comment on the acceptance of indigenous knowledge in the management of wetlands. They were also asked to provide a brief explanation of whether the government and the communities themselves allow the use of local and indigenous knowledge in different uses of wetlands. The participants had different responses, but focused on the same essence.

Commenting on suitability of indigenous knowledges, one of the interviewees reported as follows:

> Some local and traditional practices are good, and they are promoted. An example is the use of local fertilizers (manure) in agriculture. However, they are used, even if they are not promoted. Knowledge of activities that tend to harm the environment, resources, and others is not permitted. Such knowledge includes cultivation closer to water sources at 60m, use of chemical fertilizers near water sources, and killing of wild animals. In addition, community members are not permitted to cut down trees in the reserved forests. We were only permitted to collect dead wood and fruits for use. We were also allowed to maintain the bees. There are experts on the healing process. One of these is a specialist in healing the broken bones. He

> admitted the victims as inpatients. We can visit his home and see (we visited the home and we saw patients and talked to some). Some referred to this service from the Bugando Hospital after seeing that there was no successful healing. (Mumbara community leader).

Similarly, a fisherman, who is also a Beach Management Unit (BMU) member, from Itebula village had the following:

> We received directives from the government on how to ensure popular participation. They come to direct us, and we do so. We have records of village leaders and committee members. Knowledge of activities that tend to harm the environment, resources, and others is not permitted. This knowledge is similar to that of using unpermitted fishing nets, cultivating water sources closer to 60 m, using chemical fertilizers near water sources, and killing wild animals. In addition, community members are not permitted to cultivate or cut down on trees in reserved forests. We were only permitted to collect dead trees and fruits for use. We were also allowed to maintain the bees.

The results indicated that the use of indigenous knowledge is accepted in the community. Knowledge can be used, and it commands some degree of acceptance. These results agree with Vinyeta and Lynn (2013), who argued that communities recognize local communities' knowledge. However, acceptance does not mean that knowledge overcomes other types of knowledge. The results also agree with those of Nawe and Hambati (2014) and Rosli et al. (2018) that indigenous knowledge is very useful in rural communities.

Challenges in Acceptability of Indigenous Knowledge

The reported acceptance of indigenous knowledge does not mean that there are no challenges. In addition to indigenous knowledge, the participants indicated the influence of Western-based knowledge as the dominant knowledge type. The collected data establish a relationship between the two types of knowledge, as presented in the following sections.

Perceived relative positions of indigenous knowledge and western-based knowledge

Participants were asked to indicate their preferences for using indigenous and local knowledge in comparison with conventional scientific knowledge or a combination of the two types. The question was intended to establish a position where community members place indigenous and local knowledge in comparison to

conventional scientific knowledge. The responses indicate a dichotomous relationship between the two knowledge types. The responses placed preference for indigenous and local knowledge at 4%, while the preference for conventional scientific knowledge was 37% (Figure 1).

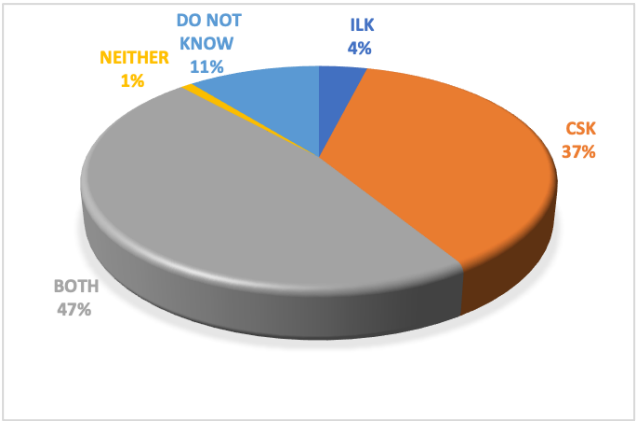

Figure 2: Community's preferences for using the two types of knowledge
Source: Field

This disparity between the two types of knowledge indicates a dichotomy. The same view was confirmed by interview responses. It has been reported that participants think that the two knowledge systems are not easily integrated, and they do not rank equally. Indigenous knowledge is viewed as being inferior to conventional scientific knowledge. An interviewee from Mumbara (a fisherman and member of the BMU Committee) commented on the relationship between the two knowledge systems:

> I do not know whether the local knowledge of people is in line with modern scientific knowledge because we do not know the two. People who go to school can help verify this. We listen to what government officials have directed us.

The participants indicated that they recognized the knowledge of people who went to school. According to their responses, they listened to government officials because they had authority and went to the school. In this way, Western-based sciences get opportunities to prevail over local or indigenous knowledge.

The responses from the participants indicated that indigenous and local knowledge is not perceived by community members as valuable as conventional scientific knowledge. The participants indicated that the community members respected

people who acquired their knowledge in Western-based educational institutions. Their responses regarded the knowledge accumulated through local experiences as not relying on knowledge.

These findings affirm Wu's (2017) argument that the use of knowledge along with conventional scientific knowledge is difficult and complex. They also imply the argument by Nguyen and Ross (2017) and Ross et al. (2011) that indigenous and local knowledge cannot work together with modern Western knowledge because of different barriers. They are also implicated in findings by Bohensky et al. (2013) that the two knowledge types are located at the two ends of the continuum greatly influenced by power relations, and in Diawuo and Issifu's (2015) and Briggs' (2013) arguments that Western modern science and traditional and indigenous knowledge are antagonistic, as they belong to different worldviews with unequal political powers.

Inferiority perceptions of local communities on their indigenous knowledge

Findings on the acceptability of indigenous knowledge posed another challenge. The challenge is pegged by the view that indigenous knowledge is inferior. The responses and comments from a community leader at Chagu Village are as follows.

> Local people's knowledge is rarely recognized by the government and by the local community members themselves. Local people despise their knowledge. Some people who hold some kinds of local knowledge hide it and practice it secretly. Practising knowledge secretly is dangerous because the community is grabbed by its ability to control the use of knowledge. Some forms of knowledge seem to be associated with magic power and witchcraft. For example, we know that some people have the magic power to fly at night. Some use their magic power to make others cultivate farms for them unaware or harvest them from other people's farms. Others kept crocodiles and snakes. (Chagu Village leader and wetland resource users).

The participants' statements showed that there are different kinds of traditional knowledge in the community that can be used, but their holders hide them. This meant that they were unwilling to expose them. Why this? The interviewee said that the holders themselves despise the knowledge they hold. However, they practiced it secretly. One can interpret this situation as implying that the knowledge is useful and important, but there is a feeling that the community does not accept or permit their use.

The same interview participant from Chagu Village added the following to the use and strength of indigenous and local knowledge:

> Some kinds of traditional knowledge that are thought of as bad are useful and strong. Imagine that they are not shared in schools; they are not advertised in markets or in streets; they have been banned and publicly declared unwanted, but they are still working. Ancestors passed and new generations came, but the knowledge is still working. They are powerful on their own. This knowledge is not bad, but they are useful. People may decide to use them with intention, as the way the doctor at the hospital can decide to use their knowledge with a bad intention of killing instead of healing. If it were bad, why should holders of modern Western knowledge seek assistance from the people they call superstitious? Why are the leaders of modern foreign religions said to seek help from people they call witchcraft? Why are politicians said to assist traditional witch doctors in securing their political positions?

These responses mean that knowledge that involves magic powers, or what the community refers to as witchcraft, is shunned in societies and banned. It is illegal. It harms. Holders of knowledge were not accepted by the community. However, it has withstood all those oppositions throughout the time, as it still prevails. People do not accept it, but they still need it and use it in concealed environment.

The interviewees were asked to talk about the challenges faced in bringing together modern scientific knowledge and the traditional or indigenous knowledge of local people in the management of wetlands. Their responses are centred on the fact that local people's ways of life, including their knowledge, are regarded as inferior when compared to modern ways of life. Different reasons were given, including the impact of colonialism, globalization, the spread of foreign religions, and the lack of clear ways of transferring indigenous knowledge.

On this, an interviewee from Kasisi village claimed that:

> When the whites came, our knowledge diminished. They brought schools that taught them what they wanted. Knowledge stocks that were inherited through generations from our parents were suppressed. Today, we look towards listening only to those who have gone through school.

Globalization has also been reported as a factor for people's despisal of local ways of knowing and living. Participants reported that globalization has come through modern information and communication technologies, which are mainly based on

Western knowledge. Mobile phones and televisions are examples mentioned. These technologies do spread Western ways of life, which tend to obscure traditional ways of life. Thus, they make Western knowledge more useful than traditional, local knowledge.

Another reported reason for the inferiority of local communities' knowledge is the spread and acceptability of foreign religions. Christianity and Islam are the dominant religions in the community, which influence the lives of most members of the community. These two religions are contrary to many traditional ways of life. As most community members are members of these foreign religions, they tend to value foreign ways of life and underrate or despise their original local or traditional ways of life. One participant, a village executive officer, said,

> Our knowledge and ways of life were good, but we were killing them ourselves. Look! We value things from abroad, and even despise our good things. Language, greeting style, eating style, dressing style, education, religion, neighbourhood

These responses imply that Western and traditional knowledge do not command equal respect within the community.

Participants showed that another reason for the inferiority of traditional or indigenous knowledge is that it does not have clear ways of transferring it. It is transferred through generations, usually from parents to their sons and daughters. The entire community does not have the opportunity to appreciate knowledge sharing. Therefore, it cannot withstand the forces of globalization, the current emphasis on knowledge offered in schools, and the strong public campaigns used to spread foreign religions.

> Look! They do their things in secrecy and hiding. We do not know how they transfer them to others or how parents transfer them to their sons and daughters. The things are not coordinated. As a result, people see everything done locally as primitive. People perceive that good things are those of a foreign origin. We would like to listen from the outside because ours is said to be local and primitive. We prefer to speak the language of foreigners, dress in foreign ways, sing and dance in foreign ways, and worship in foreign ways. In general, we wish we were them.

Participants' responses indicated that local people's despisal of their own knowledge is a big challenge in integrating local communities' knowledge in the management of wetlands. People perceive themselves to be inferior to those from

outside. To them, the outside's is superior and more valuable than theirs. They can be said to suffer from the problem of inferiority of the local or despisal of their own – perceiving local practices as primitive and those from the outside as modern and more valuable.

The long-term impact of thinking that things from outside are superior to those from within is manifested in diminishing useful indigenous and traditional knowledge. The data show that local community members does not prefer to leave their local ways of life. A villager prefers ways of living and knowing of an urban dweller who lives at the district centre or beyond.

The results concur with the findings of Asmamaw et al. (2020), who used interviews, focus group discussions, and a household survey to study the Dinki watershed in Ethiopia and found that the majority (62.9%) of respondents were aware of the usefulness of local knowledge systems in their locality, but their use was decreasing. Furthermore, many of the findings affirm the words on mental revolution attributed to Rwanda's President Paul Kagame in Plessis (2023):

> When a French national cannot speak English, African people respect him. When a Spanish man cannot speak English, African people respect him. When a Chinese man cannot speak English, African people respect him. When a Russian man cannot speak English, African people respect him. When a Portuguese man cannot speak English, African people respect him. However, when an African man cannot speak English, Africans consider him to be … illiterate, dumb, and stupid. That's the level or extent of psychological damage we have suffered as people! ... Africans refer to their language as vernacular – What a Shame! Dear Africans, put an end to this mental slavery. Teach your children their mother tongue and allow the locals to feel free to speak their native language without stigma or prejudice. Do not help the oppressors extend their oppression.

The ultimate far-reaching impact of preferring artificial or received ways of life is the hating of one's own knowledge, including ways of life. This situation is revealed through the famous Ha saying in Kiswahili that "*Shukurani ya Mha ni kumanyoko*," which generally means that the Ha people are not thankful. Other sayings at the tribe level are like "*Waha ni wachawi*" (Ha people are superstitious) and "*Waha ni wabishi*" (Ha people are contentious). The sayings are said to originate among the Ha themselves and are mostly used among themselves, indicating that they despise their own way of life.

Conclusion and Recommendations

The findings of this study show that indigenous knowledge is useful and applicable to wetland resource conservation and use in the Uvinza District. Thus, the knowledge is acceptable. However, their degree of use is affected by the challenges that they face. Although accepted, community members, including their holders, question their value and credibility. Both government officials and local community members perceive local knowledge as too local, unfit, outdated, and superstitious. Local community members are oriented toward despising knowledge for generations. The challenge leads to another one: the unequal positions accorded to the two knowledge types manifested in their locations at the two ends of the continuum. The inferiority complex of local community members on their local knowledge was found to be a factor. Members of the community respect knowledge from the outside and despise their own. Thus, instead of being their power, capital, and liberative tools, their long-held knowledge is likely to become a shackle and a factor in their intellectual enslavement. There is a need to realize the persistence of the reported challenges in order to upgrade and advocate for the local-based knowledge and make them beneficial to the local communities as they strive to earn their livelihood by interacting with their surrounding wetland resources. Indeed, there is a need to promote mechanisms for open-sharing indigenous knowledge to avoid the impact of the old English proverb noted by the World Bank (1998) that "When a knowledgeable person dies, a whole library disappears', since most indigenous knowledge is not documented and is passed on from one generation to another by word of mouth.

References

Asmamaw, M., Mereta S.T., & Ambelu, A., 2020) The role of local knowledge in enhancing the resilience of dinki watershed social-ecological system, central highlands of Ethiopia. *PLoS ONE 15(9):* e0238460. https://doi.org/10.1371/journal. pone.0238460).

Ayaa, D. & Waswa, F. (2016). Role of indigenous knowledge systems in the conservation of the bio-physical environment among the Teso community in Busia County-Kenya. *African Journal of Environmental Science and Technology, Vol. 10(12),* 467-475. DOI: 10.5897/AJEST2016.2182.

Briggs, J. (2013). Indigenous knowledge: A false dawn for development theory and practice? *Progress in Development Studies 13, 3 (2013),* 231–243.

Bohensky, E. L., Butler, J. R. A., & Davies, J. (2013). Integrating indigenous ecological knowledge and science in natural resource management: perspectives from Australia. *Ecology and Society 18(3): 20*. http://dx.doi.org/10.5751/ES-05846-180320.

Cortes-Ramirez, E. (2014). "Knowledge is Power. Francis Bacon's Theory of Ideology and Culture". An Anglo-American Studies Journal. Série 3, Número Especial (2014): 25-42. ISSN: 1646-4728.

Crowe, S., Cresswell, K., Robertson, A. Huby, G., Avery, A. & Sheikh, A. (2011). The case study approach. *BMC Medical Research Methodology 11, 100*. https://doi.org/10.1186/1471-2288-11-100.

Czerniak, B. (n.d.). Biodiversity Monitoring, Environmental Awareness Campaign and Community Empowerment on Income Generating Activities at Malagarasi Wetlands, Tanzania. https://africangreatlakesinform.org/project/biodiversity-monitoringenvironmental-awareness-campaign-and-community-empowerment-income.

Dawidowicz, P. (2011). With Scholarship and Practice in Mind: The Case Study as Research Method. *The Journal of Applied Instructional Design · Volume 1 · Issue 2. · November 2011*. 5-12.

Diawuo, F. & Issifu, A. (2015). Exploring the African Traditional Belief Systems in Natural Resource Conservation and Management in Ghana. *The Journal of Pan African Studies, l. 8, no.9, December 2015,* 115-131.

Hamisi, H., Tumbo, M. Kalumanga, E. & Yanda, P. (2012). Crisis in the wetlands: Combined stresses in a changing climate – Experience from Tanzania. *Climate and development, 4, No. 1, January 2012,* 5–15.

Hoagland, S. J. (2017). Integrating traditional ecological knowledge with western science for optimal natural resource management. *IK: Other Ways of Knowing 3(1),* 1-15.

Innerarity, D. (2012). Power and knowledge: The politics of the knowledge society. *European Journal of Social Theory 16(1)* 3–16.

Iyango L., Kiwazi F., Tindamanyire T., Kaganzi E., Busulwa H. & Mafabi P. (2005). *Traditional wetland practices in rural communities in Uganda.* The East African Community IRC Repository.

Kashaigili, J. J., & Majaliwa A. M. (2013). Implications of Land Use and Land Cover Changes on Hydrological Regimes of the Malagarasi River, Tanzania." *Journal of Agricultural Science and Applications 2 (1): 45–50.* doi:10.14511/ jasa.2013.020107.

Kodirekkala, K. (2017). Internal and External Factors Affecting Loss of Traditional Knowledge: Evidence from a Horticultural Society in South India. *Journal of Anthropological Research (Spring 2017)* pp 22-42.

Mazzocchi, F. (2018). Why "Integrating" Western Science and Indigenous Knowledge Is Not an Easy Task: What Lessons Could Be Learned for the Future of Knowledge? *Journal of Futures Studies, March 2018, 22(3)*: 19–34.

Mercer, J., Kelman, I., Taranis, L. & Suchet-Pearson, S. (2010). Framework for integrating indigenous and scientific knowledge for disaster risk reduction. *Disasters, 2010, 34(1):* 214−239. Blackwell Publishing; doi:10.1111/j.0361-3666.2009.01126.x.

Miriti, E. (n.d.). *Lake Tanganyika*. Retrieved on April 23, 2023 from https://www.africangreatlakesinform.org/article/lake-tanganyika#:~:text=Lake%20Tanganyika%20is%20one%20of,those%20species%20are%20cichlid%20fishes.

Nawe, J. & Hambati, H. (2014). *'Integrating Traditional and Modern Knowledge Systems in Improving Agricultural Productivity in Upper-Kitete Village, Tanzania'* Research Report 14/3, Dar es Salaam, REPOA.

Nguyen, T.H. & Ross, A. 2017. Barriers and opportunities for the involvement of indigenous knowledge in water resources management in the Gam River Basin in north-east Vietnam. *Water Alternatives 10(1): 134-159.* www.water-alternatives.org.

Oviedo, G. & M. Kenza Ali. (2018), *Indigenous peoples, local communities and wetland conservation.* Ramsar Convention Secretariat.

Plessis, C. (2023). Mental Revolution by President Paul Kagame. Is Kagame's worldview on the mental problem caused by English as a medium of communication and commerce? https://iniafrica.com/index.php/2023/02/04/is-kagames-worldview-on-the-mental-problem-caused-by-english-as-a-medium-of-communication-

and-commerce-powered-by-boaf-the-africa-i-want-campaign-to-provoke-ignite-and-inspire-new-perspectives-o/.

Raburu P. O., Onyango F.O. & Obiero K. O. (2012a). The Value of Consumptive Goods and Services of Nyando Wetland. In Raburu, P. O., Okeyo-Owuor, J.B. and Kwena, F. (eds.) *Community Based Approach to the Management of Nyando Wetland, Lake Victoria Basin, Kenya*. KDC - VIRED – UNDP.

Ramsar Secretariat (2020). Ramsar Wetlands of International Importance. https://www.protectedplanet.net/220068.

Rosli, F., Salleh, A., Fadhlullah, W., Ibrahim, M. & Esa, N. (2018). Tropical wetland valuation: An influence of local knowledge in Malay traditional ecosystem for human well-being. *SHS Web of Conferences 45, 03002 (2018)*. https://doi.org/10.1051/shsconf/20184503002.

Ross, A.; Sherman, K.P.; Snodgrass, J.G.; Delcore, H.D. & Sherman, R. (2011). *Indigenous people and the collaborative stewardship of nature: Knowledge binds and institutional conflicts.* Walnut Creek, Canada: Left Coast Press.

Senanayake, S. (2006). Indigenous knowledge as a key to sustainable development. *The Journal of Agricultural Sciences, 2006, vol. 2, no. 1* 87-94.

URT (2014). Guidelines for Sustainable Management of Wetlands in Tanzania. VicePresident's Office.

Vedarthan, D. (2022). *Knowledge is Power*. https://www.linkedin.com/pulse/knowledge-power-deepak-vedarthan.

Vinyeta, K. & Lynn, K. (2013. Exploring the role of traditional ecological knowledge in climate change initiatives. Gen. Tech. Rep. PNW-GTR-879. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 37 p.

Warren, D. (1987). Linking Scientific and Indigenous Agricultural Systems, pp. 153-170, In: J.L. Compton, (Ed.), The Transformation of International Agricultural Research and Development. Boulder: Lynne Rienner Publishers, Boulder, USA.

Warren, D. (1991). Using Indigenous Knowledge for Agricultural Development. World Bank Discussion Paper 127. Washington, D.C.

Williams, P., Sikutshwa, L. & Shackleton, S. (2020). Acknowledging Indigenous and Local Knowledge to Facilitate Collaboration in Landscape Approaches — Lessons from a Systematic Review. *Land* 2020, *9*, 331.

Wilson, E., McInnes, R., Mbaga, D. & Ouedraogo, P. (2017). *Kilombero Valley, United Republic of Tanzania, Ramsar Site No. 1173*. Ramsar Advisory Mission Report April 2017.

World Bank (1998). Indigenous Knowledge Definitions, Concepts and Applications. https://chm.cbd.int/api/v2013/documents/4A27922D-31BC-EEFF-7940-DB40D6DB706B/attachments/209070/Hoda%20Yacoub%20-%20IK%20Report%20(1).pdf.

Wu, H. (2017). The Process, Capability and Mechanism of Knowledge Integration. 2017 3rd International Conference on E-commerce and Contemporary Economic Development (ECED 2017).