

Indigenous Knowledge Domains Disseminated by the West FM Radio Station in Western Kenya

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Abstract: This paper is adopted from Namande's PhD thesis entitled the role of media in disseminating Indigenous Knowledge (IK) for socio-economic development: The Case of West FM Station in Western Kenya. The purpose of the paper is to assess the Indigenous Knowledge domains disseminated by the West FM Radio and how the said IK is leveraged in development. Multiple data collection comprising both primary and secondary data collection methods such as documentary review, face to face interview, telephone interview, observations and content analysis were applied. Thematic and explanatory data analysis approach was used to analyze qualitative data and where possible the respondents' voices were quoted. Among the findings of the study are that IK programmes have had a positive impact on the listenership in terms of agriculture, morality and family stability. The study may be of value to policy making with regard to IK both at the national and West FM levels. The study recommends the need for a national policy on IK and further research on discovery and harvesting of IK in the study locale.

Keywords: Culture, Dissemination, Indigenous knowledge, Media, Sharing.

I. INTRODUCTION AND CONTEXT TO THE STUDY

A. Introduction

The WB launched the Indigenous Knowledge for Development Programme in 1998 to help learn from community based knowledge systems and incorporate the same in development initiatives. The programme acknowledged that knowledge is not an exclusive domain of technologically advanced nations. It should be used as a tool to give new meaning to empowering poor people and helping to give them voice; not as recipients of knowledge but as contributors to their own development. Warren (1990) advocates for inclusion of traditional or indigenous knowledge alongside the more usual scientific knowledge, as part of national and international discussions and the strengthening of intellectual capacity. Currently there is a global move towards integrating IK into development plans, particularly those to do with poverty reduction.

The situation in Africa gives a clear insight on how indigenous knowledge can be applied to enrich the development process. Africa has a rich heritage of indigenous knowledge resources, utilized in areas which include traditional judicial systems to reduce or prevent conflict, use of traditional healers to increase the effectiveness of HIV/AIDS projects, use of traditional knowledge to help reduce maternal mortality, development of medicinal plants for diseases management, water harvesting and soil conservation technology among others.

It is important to note that despite the value inherent in indigenous knowledge, only a few countries of the developing world more especially Africa South of the Sahara have elaborate policy and legal framework to underpin Indigenous Knowledge. Kenya is yet to come up with a policy that deals directly with IK despite recognition by the Constitution of Kenya 2010. According to Njiraine (2012), the National Policy on Heritage and Culture; Traditional Medicines and Medicinal Plants Policy; Legislation on Folklore and Genetic Resources and the National Environmental Monitoring Agency (NEMA) Act gives IK special recognition in its expressions of culture. In chapter one, the constitution recognizes IK as the foundation of the nation and the cumulative civilization of the Kenyan people and nation. Specifically, the constitution makes the following pronouncements regarding culture that have direct implications on IK: "the State shall

- Protect all forms of national and cultural expressions through literature, the arts, traditional celebrations, science, communication, information, mass media, publications, libraries and other cultural heritage.
- Ensure that communities receive compensation or royalties in the use of their cultural heritage and
- Recognize and protect the ownership of indigenous seeds and plant varieties, their genetic and diverse characteristics and their use by communities of Kenya."

The fact that IK is mentioned in the Bill of Rights underscores the significance that the country attaches to IK.

West FM Radio is based in Bungoma County and serves audiences in Western and North Western (North Rift) topographies of Kenya. It has various programmes on IK dissemination such as Kipindi cha watoto that targets the children listener-

ship, Lumasaba (community of Luyia languages), Litungu (three stringed music instrument) and others. All these developments are good for IK dissemination but then, the IK domains aired, ethnic coverage, language used, and the extent to which the programmes address socio-economic needs of the locale of focus need are not clear (Namande, 2016).

B. Statement of the Problem

Indigenous knowledge is recognized globally as an important ingredient of development. Dissemination of such knowledge is now at the forefront of the international development agenda. Like in other African countries, dissemination of indigenous knowledge in Kenya is done through folk media and contemporary media. This is not only for protecting and preserving this resource but also to ensure that it is disseminated and leveraged appropriately for social economic development. Community radios are expected to pursue social economic development agenda, respond to the community's expressed needs, and be accountable to their stakeholder communities through an interactive and consultative process. However, the extent to which FM radios such as the West FM IK programmes addresses community indigenous knowledge needs and socio economic development matters is not known.

Further to this, despite West FM's efforts in disseminating indigenous knowledge, its IK programming, coverage and inclusivity is unknown. If the situation continues, a lot of resources are likely to go to waste and therefore the envisaged socio economic development (outcome of IK dissemination) may not be realized. Without evaluation, it may not be possible for West FM management to establish grey areas in its IK programmes that require improvement. This study therefore evaluates indigenous knowledge domains to determine their contributions to socio economic development of Western Kenya.

C. Purpose of the Study

The purpose of this paper was to evaluate IK domains and practices disseminated by West FM Radio for socio-economic development of diverse communities of Western Kenya.

D. Objectives of the Study

- (i) To assess indigenous knowledge domains and practices in Western Kenya.
- (ii) To evaluate IK domains and practices disseminated by West FM radio.

II. REVIEW OF RELATED LITERATURE

A. Indigenous Peoples of Western Kenya

From the ethnical, linguistic and political points of view, the Luyia do not form a homogeneous group even though they are clearly distinct from the surrounding tribes. The Luyia comprise the Bukusu, Maragoli, Tiriki, Tachoni, Samia, Banyala, Wanga, Basotsotso, Isukha, Idakho and a host of other Luyia sub ethnic communities. According to Wagner (1949) as quoted by Namande (2016), the North Kavirondo district (Vihiga, Kakamega, Busia and Bungoma) comprises a multi-ethnic composition with the majority being Luyia speaking peoples, the Nilo Hamitic Teso and the Elkony on the slopes of Mt. Elgon and the Ngomek who seem to have been assimilated into the Bukusu community.

There are three major ethnic communities in Bungoma County. The majority are the Bukusu who together with the Tachoni are the largest community in the former Western province. The other ethnic group is the Sabaot, a section of the highland Nilotes and the Kalenjin. These are the largest of the minorities, living almost exclusively in Mt. Elgon Sub-County. There is a tiny pocket of their cousins (Bonkomek) who are assimilated into the Bukusu community and are believed to have been among the original inhabitants of Bungoma. The last ethnic group is the Iteso who live in the south western part of Bungoma County and the northern part of Busia County. These are reverian section of the Nilotes and are part of the wider community of the Iteso living in Eastern Uganda around Tororo town making a continuum along the Kenya Uganda border. In Bungoma County, the Teso or Iteso live around Malakisi town, Changara sub location in Sirisia Sub-county, and Cheptais and Kimilili sub counties respectively. Other communities that have become part of this region by way of business engagements are the Kikuyu, Asians and Nubians among others (KNA, DC/NN3/1/1).

In Busia the predominant Luyia subgroups are Abamarachi, Abakhayo, Abasamia and Abanyala each of which has heterogeneous clans of numerous and different origins. According to Were (1967), these clans came from one broad linguistic area to the west-Busoga, Bunyole, parts of Buganda and Bugishu from where the general Luyia substratum of language and culture, homogenized to a large extent by mingling and mobility after arrival. The other ethnic group is the Teso who are homogenous and distinct culturally and linguistically from their Abaluyia neighbours.

B. Indigenous Knowledge

Indigenous Knowledge (IK) is the basis for community level decision making in areas pertaining to food, security, human

and animal health, education, natural resource management and vital economic and social activities (Warren, 1991). To Rajasekaran (1992), indigenous knowledge is a systematic body of knowledge acquired by local people through the accumulation of experiences, informal experiments, and intimate understanding of the environment in a given culture.

On the other hand, Gorjestani (2000), defined Indigenous Knowledge (IK) as the basis for community level decision making in areas pertaining to food, security, human and animal health, education, natural resource management and vital economic and social activities. This knowledge is used at the local levels as a basis of decision making on a wide range of issues and has been a key social capital in helping people have control over their lives. IK embodies knowledge that people in their local communities have developed themselves for centuries. This knowledge is a resource that has helped people to solve local problems, grow more food, maintain healthy lives, prevent conflicts, manage local affairs and therefore contribute to global solutions. Sithole (2007) adds that indigenous knowledge is predominantly tacit, embedded in the practices and experiences of its holders, commonly exchanged through personal communication and demonstrations from the teacher to the apprentice, from parents to children, from neighbor to neighbor.

Generally, IK refers to local knowledge that is unique to a given culture or society. It is the basis for local-level decision-making in agriculture, health care, food preparation, education, natural resource management, and a host of other activities in rural communities. Indigenous or local knowledge refers to a complete body of knowledge, know-how and practices maintained and developed by peoples, generally in rural areas, who have extended histories of interaction with the natural environment Nakashima (2000). These sets of understandings, interpretations and meanings are part of a cultural complex that encompasses language, naming and classification systems, practices for using resources, ritual, spirituality and worldview. It provides the basis for local-level decision-making about many fundamental aspects of day-to-day life: for example hunting, fishing, gathering, agriculture and husbandry; food production; water; health; and adaptation to environmental or social change.

C. Indigenous Knowledge Domains and Practices of Western Kenya

Belief system was and is the glue that cements the social fabric of the Luhya people. Beliefs are sets of ideas about the physical, natural, social and supernatural environments of people. These can be in the form of superstitions, magic or witchcraft, myths, taboos and religion, all being areas of human experience that are based on faith and therefore not open to question (Were, 1986).

In religion for example, the conceptualization of God was based on Were/Wele (God) depending on the dialect that one speaks. God was also known as Khakaba, the provider for each individual. He was thought to be the light, lived up in the skies as opposed to spirits of the ancestors which lived in the underworld. Among the local communities of Busia for example, prayers or incarnations for good fortune or sacrifice, Were/Wele was not invoked in isolation from named ancestors who were considered closer to the people than Were, although not considered as actual intermediaries between the living. Communication between the living and the living dead was engaged through sacrifices in which pieces of meat, food, dung and beer were offered to named ancestors to eat and drink. While there were individual, family and communal shrines for the spirits of ancestors, there was none for Wele as we have churches, synagogues, temples and mosques today. A shrine was a miniature house two feet tall with a thatched roof. The inside comprised three stones with a central pole running to the mid roof top. This was the altar for sacrifices and the spot where the oldest male member of the family stood at sunrise, before anyone else opened his or her door, to spit saliva to the East asking Wele to bless him and his family for the day. The incarnation was repeated in the evening where he would spit saliva facing the west asking Were for a goodnight.

Rainmaking is yet another indigenous practice in community knowledge realm. There were rainmakers in nearly all the major clans of the Luyia ethnic communities. In case of prolonged drought, *Omwami* (leader) would consult with diviners to establish the possible cause and then invite an individual rainmaker to remedy the situation, either singly or by involving the entire community in a cleansing ritual to appease the heavens to release rain. Among the Teso, a ritual was performed in public in which young people performed jumping dance the whole day. As the rain dance continued medicine men boiled rainmaking herbs in huge pots. Rain is said to have started falling while the dance was still in progress.

Mberia (1986) points out that Bungoma County is characterized by language diversity. Among the most prominent languages spoken in Bungoma are the Bukusu, Sabaot, Tachoni, Teso, Kiswhili and English. The indigenous communities of Bungoma are the Bukusu, Sabaot, Tachoni and Teso distributed in different geographical zones. Sabaot is spoken mainly in Mt. Elgon. One of the striking aspects of language use is the tendency of other language speakers to speak Bukusu fluently, while the reverse seems not to be true. The demographic and economic status of the Bukusu speakers tends to make the language a kind of mini-lingua franca at least in the county. This is owed to the fact that both demographically and economically, the Bukusu are the most dominant.

Though the Luyia ethnic groups are able to understand the Luyia community of dialects as spoken in different parts of western Kenya, there are variations in language dialects as distributed in each county. Soper and Mould (1986) posits that

there are five identifiable speech groups in Busia four of which are subsumed to be under the general designation Luyia. The Abanyala, Abasamia, Abamarachi and Abakahayo all speak Luyia dialects.

The fifth is the Ateso. Soper (1986) adds that the Western and central Luyia are very closely related and have a high degree of mutual intelligibility. In fact, the two are significantly closer to each other than either the Northern (Bukusu and Gishu) or Southern (Idakho, Isukha, and Logooli).

D. Creation and Dissemination of Indigenous Knowledge

The IK embodied in traditional education transmitted by the people of western Kenya had common crosscutting aims. They included: discipline, teaching children about their culture, preparing children to become good members of society and equipping them with necessary knowhow and skills for their future roles in their respective communities. According to Wandibba (1979), this knowledge was and is created and transmitted to the child by the family, the clan, the ethnic community as well as by initiation, work, oral traditions, social ceremonies and play. Indigenous knowledge in contrast to formal knowledge is handed over orally, from generation to generation, and is therefore seldom documented. Using indigenous knowledge in development enterprises enables indigenous peoples and local communities to actively participate in the decision-making process.

Because of their close linguistic and socio cultural relationships, the types of education given to the children among the Luyia ethnic communities and their neighbors (sabaots and Iteso) was almost identical but with variation in some aspects of culture. This is because of the long historical links that the western Kenya ethnic communities have had with each other. Just as is the case with contemporary education, in the traditional setting, children were given different forms of education at different stages of their growing up.

IK is usually disseminated through various contexts including rituals, ceremonies, teachings and cultural events. Settee (2007) argued that some of this knowledge is timeless, such as those which address human values like sharing, caring and interdependence. Unlike individual knowledge that is propagated by the formal school system, IK is a community property. The concept of community is generally an extension of the family and many community members have family ties. This kind of relationship extends to the animals and the natural resources.

Wandibba (1979) adds that the indigenous knowledge disseminated to children in most of the communities of western Kenya was practical oriented. It was meant to equip the child with practical skills that would enable him or her to play his

or her role in adult life. Morality and good conduct were also stressed. Peership and initiation ceremonies emphasized the importance of co-operation and unity among the individuals in every society.

According to the Ministry of Culture and Social Services (1981), a child underwent training right from birth to adulthood. The first training being at the infancy stage and the main things taught included walking, sanitary habits and weaning. This training was given mainly by the mother and nurses. The nurse was invariably female and could be either an older sibling or a close relative. The baby was induced to sit, crawl, stand and walk. In childhood, the training was basically on weaning. Weaning was meant to deprive the child of its dependence on the mother. Henceforth, the child was to learn from its peers, older siblings and from other members of the immediate family as well as neighbors. The important traits valued by all the western Kenya communities included obedience, respect and responsibility. This type of training started early in the childhood and continued throughout the child's life. A disobedient child was chastised by inattention, teasing, threats of the supernatural sanctions, abuse, curses or beating.

According to Namande (2016), instructions were given in the form of riddles, proverbs, stories and songs. From the age of four to six years, children were expected to handle real chores. Education was differentiated on the basis of sex: Boys were expected to learn mainly herding whilst the girls were exposed to farm work and housekeeping activities such as, house sweeping, fire lighting, cleaning utensils and fetching firewood among others. This type of training was holistic preparation of girl child to confront lifelong challenges including marital conflicts. Children were also taught about exploitation of their immediate physical environment such as distinguishing between edible and non edible vegetable materials and identification of harmful or poisonous plants.

The next stage of training or knowledge transmission to the youth was during initiation which played a crucial role in the education of the children in the communities under review. Initiation involves circumcision of boys among most Luyia speaking communities while both boys and girls are circumcised among the Sabaot save for some families that have abandoned the practice. In the traditional setting boys among both the sabaot and Luyia would be circumcised at the age of between 18 and 20 years. For the Bukusu and Tachoni, circumcision is done every August of an even year. The sabaots conduct circumcision practices in the month of December of every even year.

It is important to note that the novices, after circumcision, were kept in seclusion until the wounds healed. On the third day after circumcision, the novices were lectured by the circumcisers on proper tenets of living. In the lecture, the circumciser emphasized respect for their parents and all old people as well

as their age mates. They were instructed not to enter a married man's house otherwise they risked being arrested and fined or even being killed for committing adultery. They were told that should a married woman invite them for love making, such a woman should be taken to the bush and be made love to only once to avoid being caught (Makila 1989). For the Bukusu, another ceremony was prepared later on at which paternal and maternal uncles, real or classificatory, came to admonish the novices along the same lines. This was done after the novices were cured but before the final ceremony of coming out of seclusion.

Among the Sabaot as well as some of the Bukusu and Tachoni clans, the closing ceremony consisted of a secret ritual. For the Sabaot, the boys were taught from the bush where they were given information on all animals and lectured on moral values such as the avoidance of stealing, lying and adultery. Whatever that happens in the bush is a confidential and top secret affair known only to instructors and the novices. The following day, an open ritual inducted both male and female initiates into the world of regular affairs and established their age-set membership (DC/NN3/1/1).

E. Community Methods of Disseminating Indigenous Knowledge

Communities preserve and transmit knowledge using techniques such as oral storytelling and experimental instruction (Tenya, 2015). Settee (2007) argues that in oral societies, stories are a powerful medium of life instructions and a means of conveying values, which are important links to the past and a means of survival in the future. The young would be told stories which were supplemented by songs referring to community's history, migrations, wars, famines and good harvests among other lessons. Though part of recreation, storytelling was a very important means of disseminating indigenous knowledge. Stories were and are narrated to young boys and girls by old men and women who were considered skilled in life and had the requisite experience and knowhow to share with the youth. Young boys and girls met in the evening at their grant parents' houses, near the fire places to be told stories while waiting for supper. Some stories were based on boy-girl relationships, myths, folk tales, wild animals, ghosts and other super natural powers. The importance of the stories was to teach certain lessons, certain messages, in calculate a sense of reasoning, analyzing situations, problem solving, character building among others. For example the popular story told and retold is that of a hyena and a rabbit, in which the hyena is portrayed as a hungry, greedy, unreasonable and foolish animal while the reverse is said of the rabbit (Republic of Kenya, 1990).

Proverbs were also used to teach young boys and girls to discover for themselves the hidden meanings of the proverbs. Other modes of IK dissemination worth mentioning are riddles. Riddles were told at night by old men and women as lessons to

the young to show what was expected of them, particularly in shaping them to fit in their communities.

Olenja (1986) adds that dances were used as teaching aids. Dances varied according to the occasions. For instance dances performed during marriages were different from those performed at the birth of twins or during funerals. The young ones had to learn how to differentiate between the dances and link them to particular events.

To impart practical and specialized skills, emphasis was laid on work. Skills such as digging, planting and various crafts as related to the economic or subsistence activities of the community were imparted to the youth. The society recognized role specialization such that only certain people specialized in certain skills and crafts depending on their interests. For example, the making of salt from plants, grinding stones and blacksmithing were specialized skills acquired through apprenticeship and imitation and solely depended on ones interest. The family IK could also be acquired through inheritance. For instance, son of a rainmaker, magician, sorcerer, brick maker or blacksmith may grow up to acquire these skills under minimum instructions (Harp 1999).

Among all the methods of disseminating IK, the use of arts is the oldest and most outstanding. Arts constitute a legitimate source of knowledge that is capable of ensuring cultural continuity. Music in particular has been used to bring societies together in ceremonies, feasts, weddings, births, deaths and other events. It is also used as a means of passing down values, history and news. Ladner (1996) argues that in modern times, songs have been used to educate people about injustices such as land grabbing, genocide and life on the streets. Modern indigenous music has been used to popularize people's history, radicalize and instill pride and as a medium of teaching that which is not found in other sources.

F. Indigenous Knowledge and Socio-Economic Development

Initially seen as being inferior, inefficient and an obstacle to development, contemporary thinking has recognized the value that IK hold for sustainable development. The increased focus on IK represents a paradigm shift from preoccupation with scientific knowledge, which has not altered the lives of the majority of the poor over the last decade. This in itself is a significant indicator that in social economic development, Indigenous Knowledge cannot be ignored (Agrawal 1995).

To Steigner (2008), the value of indigenous knowledge lies in its ability to deliver social and economic goods; [and] that certain traditional practices if popularized, and integrated with modern knowledge systems, can help to alleviate poverty. In other words, IK is a powerful resource of rural people's social economic wellbeing and therefore, a key element in the fight against poverty and social exclusion for many rural communities worldwide.

In West Africa, local languages are used as a means of instruction to improve education in primary schools; provision of primary health care to help reduce child mortality in Eritrea and maternal mortality in Uganda.....and using traditional medicinal plants in Zimbabwe to treat malaria (World Bank 1998).

Mkapa (2004) argued that IK has contributed to building solidarity in communities affected by globalization and shielding them from its negative impacts. On the other hand, lessons from indigenous knowledge initiatives indicate that IK provide communities with development ownership, improved local capacity, self-reliance and empowerment. To this extent, building on IK will help communities to substantially reduce the risk of failure of development projects and save money from government, donors and multilateral organizations.

In Agriculture, IK has become valuable to those who depend on it; IK has made great contribution to crop production by peasants. Anyita (2010), is of the view that small scale resource farmers have good reasons for sticking to their local knowledge and farming practices because modern techniques can only be successful and sustainable, if IK is taken into consideration.

III. RESEARCH DESIGN AND METHODOLOGY

A. Research Design and Locale

The study applied mixed research design in which both quantitative and qualitative approaches were used for data collection and data analysis. Quantitative methods were used because of their convenience to the respondents in selecting constructs. The paper makes use of descriptive explanations and reported qualitative statements from respondents (respondents were quoted verbatim before explanations were made. In tandem with the objectives, the study systematically described the different facets of IK disseminated by the West FM Radio station. The study was carried out in the West FM Radio coverage area which comprises the Western and North Western topographies (the former Western province and the North Rift regions) in which West FM commands huge following in terms of listenership and audience. Thematic and explanatory data analysis approach was used to analyze data. The themes were derived from the research objectives and research questions. Data was analyzed quantitatively and qualitatively.

B. Population

The target population comprised staff of West FM Radio station, opinion leaders, audience and community knowledge custodians drawn from Western and the North Western Kenya (coverage area of West FM Radio Station). West FM Radio station had 44 staff members at the time of the study all of whom were used as subjects of the study. The audience was drawn from the coverage area. Since the study area was limited to the former Western Province and the North Rift Region of Kenya,

the target population for this study therefore, was 3000 active audience as provided for in listenership statistics in addition to 44 staff members.

C. Sampling Techniques

In this paper, purposive, stratified and simple random sampling techniques were used. Because of strategic considerations, the researcher purposively selected all the 44 staff members of West FM Radio station. Snowballing was applied to identify 42 community knowledge custodians using cultural talk show hosts and/presenters. Knowledge custodians consisted of community elders and opinion leaders (two from each of the 21 ethnic communities under study topography). The study also made use of stratified sampling. Stratified sampling strategy was used because it ensured a more representative sample of the two strata: West FM staff and the listenership. However, since the population was not homogeneous, systematic random sampling was applied for the listenership stratum. Determination of the sample size was based on Krejcie and Morgan Sample Size Determination Table for $\pm 5\%$ precision level and 95% confidence level (Krejcie and Morgan (1970) and Israel (2013)). See Table I.

TABLE I: SAMPLE SIZE

Target Population	Study Population	Sample Size
West FM Staff	44	44
Listenership (Western and North Western Topographies)	3000	353
Knowledge Custodians	42	42
Total	3086	459

Source: Krejcie and Morgan (1970), Researcher, (2015)

D. Research Instruments

The main instruments used in the study were questionnaires, interview schedules and observation checklists. The questionnaires were mainly administered to the West FM audience while the interview schedules were used for interviews with key informants who comprised strategic West FM staff members and IK custodians cum opinion leaders and elders.

E. Logistical and Ethical Considerations

Ethics in research is premised on the fact that researchers are genuinely concerned with impacting positively on other peoples' lives and are not motivated by personal gain, in addition to the fact that there are laws which prohibit certain research practices (Mugenda and Mugenda, 2003). This study endeavored to apply all the relevant ethical principles at all

levels of the study (research design, sampling, data collection and analysis). As a matter of intellectual honesty, all sources referred to were appropriately cited and referenced.

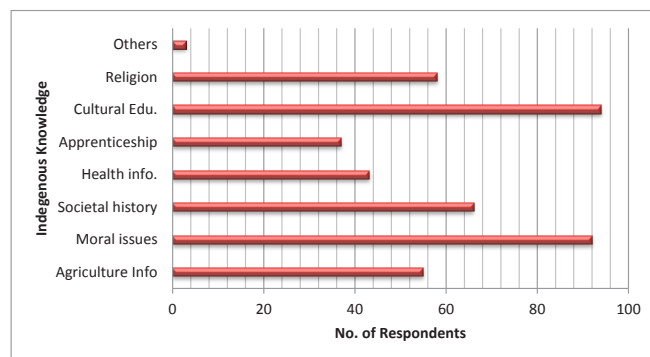
F. Research Protocol and Itinerary

After securing permission to conduct the study, the researcher personally interviewed key informants from the West FM station, observed listening behavior of the audience and engaged the group members on lively discussions regarding West FM and indigenous knowledge. Questionnaires were either distributed by the researcher or his research assistants in far flanked areas of the study locale.

IV. FINDINGS

A. Indigenous Knowledge Domains and Practices in Western Kenya

The study sought to unpackage the different types of knowledge domains as practiced in Western Kenya. The respondents were asked to state aspects of life that are embedded in the Western Kenya forms of Indigenous Knowledge. There are various systems and practices raised that underpin indigenous knowledge in Western Kenya. The following was the order of the responses: 55% of the respondents suggested cultural education, 54% mentioned moral issues, 30% talked about societal history, 33% cited religion, 32% pointed out agricultural information, 24% indicated health information, 21% stated apprenticeship while 2% talked about other aspects of life as being systems and practices of IK in Western Kenya. This is as illustrated in Fig. 1 below.



Source: Field Data (2015)

Fig. 1: Indigenous Knowledge Domains and Practices in Western Kenya

From the response given above, it is almost difficult to draw a line between cultural education, moral issues and societal history because of crosscutting issues that makes them look similar. The qualitative data over IK practices generated from the interview with one of the key informant, who is both a

secondary school teacher and an opinion leader well versed in indigenous matters, vindicates the quantitative data above.

The researcher sought to know from one of the key informants about the nature of indigenous knowledge domains and practices and how they were transmitted to the youth. Sitati (2015), responded, “*indigenous knowledge in the traditional setting aimed at holistic development of morally, socially and spiritually upright individual so that their future can be worthwhile. Even so, I regret that things have changed due to modern education...such education was transmitted orally from generation to generation through different community settings and activities such as rites of passage e.g. birth, naming, circumcision, marriage and death among others*”. Indeed such occasions provide opportunity for people to gather together and not only share meals and drinks but also be able to reflect on community’s ways of life for the benefit of the young who need to develop holistically.

From an interview with the lead IK custodian, much of the history and religion of the people of Western Kenya is mythological. As he reflects on the origins and the genealogy of the Bukusu for example, Manyasi (2015), articulately states,

“*the Bukusu were created by Wele Khakaba (God) who created the first man at Emakunda (cradleland) at Esibakala open place) the equivalent of the land between Rivers Tigris and Euphrates (Garden of Eden) where the first Man, Mukhobe sired Mutayi who fathered Mukhale who in turn beget Wanakhatandi the father of Sampa and the grandfather of Mubukusu who fathered Mwambu. Mwambu married two wives: Nabarwa and Sela. Nabarwa gave birth to Silikwa, Kikayi and Mwalie while Sela gave birth to Malaba, Neala and Nabayi*”.

Therefore, the history, religion and culture of this community are so intertwined that it is impossible to talk about one without veering off into the other.

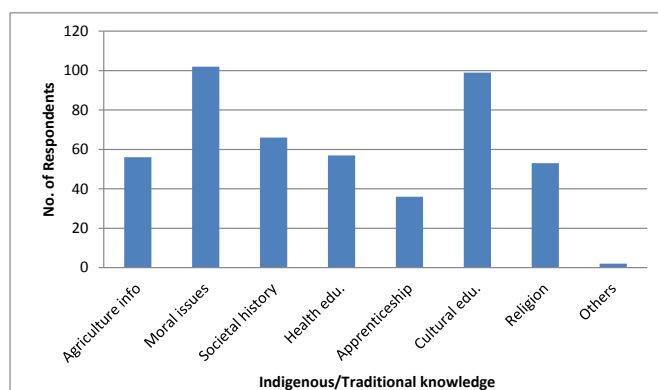
On the other hand, spiritual leaders make use of funeral rites to educate society in general on matters that affect wellbeing of society. The researcher attended one such a rite (*lufu*) and observed the manner in which IK was transmitted to the audience (mourners). Women sat on the ground on one side with their legs stretched while men sat on seats on the opposite side in total silence. There was minimum movement allowed; in the event that one felt like going out of the gathering even for a call of nature, he or she was not allowed to rejoin the proceedings. The traditional priest or spiritual leader stood in the middle from where he addressed his audience if the deceased was a young person or a woman but walked from one end to the other if and when the deceased was an elder (*khuswala kumuse*). In either of these scenarios, the spiritual leader taught, advised, cautioned and admonished his audience. The spiritual leader uses such opportunities to advice people to fight famine and hunger by growing drought resistant food crops such as millet, sorghum, bananas etc. To avoid lifestyle diseases and for a healthy society, he laid emphasis on eating indigenous

vegetables such as *saga* and *esufwa/suja* (bitterlike vegetable that has to be cooked in specialized style), *murenda* and *murere* (slippery type of vegetables), *kumushebebe/lishebebe* (pumpkin leaves) and others flavored with milk cream or fermented milk.

Regarding food preservation, the spiritual leader advised, “my people, do not leave food to go bad; smoke it, dry food in the sun: maize, beans, sweet potatoes and others. Eat, honey for your health; drink animal bile to protect yourself from malaria, it is medicine.....young people; you should abandon alcohol and drunkenness...it is finishing people.....” . The spiritual leader lays emphasis on food preservation to fight against famine. He advised that food should be preserved by either drying in the sun and or smoking. He admonished the youth against reckless drinking that is causing marital discord and family breakdown due to sexual malfunction because of consuming illicit alcohol. He encouraged moderated use of indigenous beer. He stated that pure traditional brew was healthier as compared to the illicit brew which has wasted and is wasting away a whole generation. The spiritual leader went on to talk about a host of other practices that underpin traditional or indigenous knowledge including but not limited to midwifery, traditional medicine among others. His stylistic transmission devices included narratives, riddles, sayings, proverbs and questioning. The application of these styles kept the audience yearning for more without realizing that the lecture had taken too long.

B. Indigenous Knowledge Domains and Practices Disseminated by West FM

It was established that West FM disseminates IK that is crosscutting in various aspects of life. As indicated in Fig. 2, cultural education and moral issues were alluded to by the highest percentage of respondents at (57%) each. Other forms of IK disseminated by the radio as pointed out by the respondents include agriculture (33%), society history (35%), health education (27%), apprenticeship (16%) religion at 27% others were stated by a paltry 1%. It is however, important to point out that some respondents pointed out more than one aspect as forms of IK disseminated by West FM.



Source: Field Data (2015)

Fig. 2: Indigenous Knowledge Domains Disseminated by West FM

Further to the responses above, the researcher interviewed the custodians on community IK practices that the radio disseminates. Omuchuma (2015) quipped, ‘*The radio station concentrates on practices that are community based, especially those whose end product is to transform living standards of the people. Such practices include clan identity, indigenous land-use systems, labour-sharing arrangements among farmers, cultural functions, education, peace, entrepreneurship, kinship, institutions, trade, natural resources among others all of which require the application of IK to improve living standards...’*

One Bukusu elder gave detailed review of their practices with passion and nostalgia. Regarding food, an elder, Manana (2015) stated, *indigenous food as eaten in the days past was better than modern dishes that are only sophisticated in cuisine styles but with little food value. Indigenous diet was reasonably wholesome since it was varied with different nutritious dishes derived from indigenous crops, wild plants, domestic animals, wild animals, and insects such as termites, locusts, grasshoppers, cow dung crabs and many others.*

Here, the elder underscores the need to feed on traditional foods that have health value.

With regard to child bearing, the Bukusu greatly desired to have children whose birth increased family happiness. *Male children were desired most, however, a man without daughters considered himself poor since he could not benefit from bride wealth. A balance in the two sexes was ideal. On the contrary, a state of childlessness was a sign of misfortune and therefore was frowned upon and the victims were normally women who were accused of barrenness. On the other hand, the birth of twins was both a blessing and a sign of disaster. After the birth of twins, both the mother and children are required to be secluded for a long time until the prescribed sacrifice of a sheep and beer drinking was performed to ‘open’ or release parents from seclusion (Manyasi 2015).* This is a reality in the social cultural setting of the Luyia communities that have no space for childlessness and laid emphasis on striking a balance between both boys and girls for perceived social economic benefits. The custodian explained that the issue of twins is sensitive in some clans as it leads to family breakdown and therefore it is necessary that it is programmed for educating the people to appreciate birth of twins as a blessing but not a curse from God.

Normally, the birth of a child was followed by elaborate undertakings. Manyas (2015) explains, “*After birth, naming took place. A child was given a name in relation to the season, or place where the child was born. Ancestral names, preferably from very admirable and successful ancestors were given to keep sickness or nightmares away from the kid. Twins were given names depending on who came out first; the first one to be born was called mukhwana and the second mulongo. Thus child naming was as important and involving as was any rite of passage. Relatives and friends shored the new borns with gifts ranging from foodstuffs, clothing and even live animals.*

As a rite of passage, circumcision was and is a reserve for boys only. *“Circumcision marks the end of childhood and transforms the youth into adulthood in terms of morals, behavior, responsibilities and exposure to community education. Circumcision was and is still based on eight circumcision age grades, (bibingilo) each of which has six age sets (chimbaka). The age grades comprised kolongolo, kikwameti, kananachi, kinyikeu, maina, nyange, chuma, and sawa.....* (Wepukhulu, 2015). Wepukhulu, a traditional circumcisor explains that the Bukusu community circumcises their sons aged between 11 and 15 years.

The other important customary practice that the west FM amplifies from time to time in its IK programmes is marriage. *Marriage gives a man recognition, prestige and influence a young man intending to marry could not marry a woman who is a divorcee, a widow or one who has given birth out of wedlock. He could also not be allowed to marry a relative.* Thus West FM IK programmes features marriage and underscores its importance as an institution that symbolizes the continuity of the family unity and society in general.

With regard to administration of justice, Manyasi (2015) explains that all laws were rooted in the tribal customs and traditions. Ethical rules and legal precepts that guided court decisions were anchored in proverbs, sayings and songs. Action against offenders was geared towards reconciliation and compensation for offences against the individual and his next of kin vis a vis neglect of customary obligations. From the foregoing, West FM transmits programmes that are laden with IK practices that are important for communities' socio economic wellbeing. Such practices comprise morality, agriculture, culture among others.

Though more than one aspect were indicated as being the subjects of discussion in the IK programmes, the areas that the opinion leader focused on mostly are cultural and moral issues. This is an attempt to counter the social economic impact of the western knowledge, Christianity and globalization that have made many a youth to adopt a freestyle mode of living resulting into corrupted morals and traditional values. It is no wonder then that hardly any IK related programmes concludes without crosscutting moral and cultural issues arising

C. Indigenous Knowledge and Social Development

From Table II, various areas in which IK has contributed in their transformation are illustrated. In their response, 15% respondents cited family values as an area that has greatly benefitted from West FM IK programmes while 10% indicated that the programmes have contributed to sustainable tenets of family planning. Peace in society was pointed out by 13% of the respondents, 10% stated that the IK programmes strengthened cultural values, while a further 10% indicated that research activities in local IK have increased. On the other hand, healthy living and alternative medicine as areas that have been given an upward thrust by the IK programmes were each

suggested by 5% of the respondents. Finally, local language is deemed to be a sector that has benefitted from indigenous knowledge. This was supported by 10% of the respondents. Indeed, the IK programmes sometimes concentrates on local language vocabulary and phraseology that amazes the youthful constituency of audience. From this pattern of response, it is clear that IK affects almost every facet of society and that the various social aspects are mutually interrelated and therefore impact each other.

TABLE II: INDICATORS OF SOCIAL DEVELOPMENT

Indicator	Response Rate
Family Values	15%
Family Planning	10%
Peace in Society	13%
Cultural Values	10%
Healthy Living	5%
Alternative Medicine	5%
Research	10%
Local Language	10%

Source: Field Data (2016)

Within family circles, stability is a bi product of IK through West FM in that the ethos of family stability, being a precursor or foundation to the stability of the society and the nation in general cannot be overemphasized. Men are reminded to be responsible husbands in not only fending for the families but also ensuring that their wives' conjugal rights are observed to the letter. In the same breathe, women are reminded to respect their husbands and obediently attend to them. To strengthen the marriage and family institutions, morality is emphasized; uprightness, respect, love among other society mores are unpackaged for application by individuals This tends to lead to decreased family conflicts. Therefore, a society with minimum family wrangles is one that develops socially and economically since all their energies are exerted towards achieving the society's wellbeing.

D. Indigenous Knowledge and Economic Development

The researcher was interested in establishing how IK has impacted on economic development. From the illustration in Table III, the response shows a strong indication of impact on agriculture (30%) and food security (30%) being sectors that have flourished as a result of West FM IK programmes. This is probably due to the fact that most of the time the IK custodians lays emphasis on making proper use of land to avoid hunger related catastrophes. Environmental conservation (15%) and self reliance (15%) respectively are other economic sectors that were mentioned as areas that IK programmes have been

leveraged for development. The least economic sector that IK programmes have been applied for the benefit of society is apprenticeship at 10%. This is an area in which most young people with minimum or no education have been encouraged to look beyond formal learning and embrace life through practical approaches. Indeed, many young people of this calibre have made breakthroughs in life through farming, carpentry, pottery, basket making and related occupations that require natural skills and competencies but with slight direction from those who know (elders).

TABLE III: INDICATORS OF ECONOMIC DEVELOPMENT

Indicator	Response Rate
Agriculture	30%
Environment	15%
Apprenticeship	10%
Food Security	30%
Self Reliance	15%

Source: Field Data (2016)

E. Challenges Encountered in the Dissemination of Indigenous Knowledge

The researcher then sought to know the particular challenges. In response, 10% of the respondents complained that the language used to disseminate IK is discriminatory, 5% of the respondents stated that coverage and scope was an issue of contestation since not everybody in the topographies of the study listens to radio and even if they were to listen, there is no guarantee that everybody would tune in to the programme. Likewise, 10% of the respondents complained about the programme scheduling (weekend afternoons) as being inadequate. A further 2% pointed out that the radio station does not have adequate staff in IK matters to reach more people and in terms of research on IK. Last but not the least 3% decried funding as a challenge to the programme. Finally, 5% stated that attitude is a deterrent to effective dissemination of IK by West FM.

V. SUMMARY, CONCLUSION AND RECOMMENDATIONS

A. Introduction

This chapter summarizes integral issues as established in the paper and also makes relevant conclusions and recommendations based on policy, best practice framework and further research. The following are the issues established by the study:

- Indigenous knowledge is understood as traditional knowledge, culture, society education, community information, and oral traditions respectively.
- IK domains and practices disseminated through West FM IK programmes comprise cultural education, moral issues, society history, agriculture, health and apprenticeship.

- West FM Radio station makes use of four programmes to disseminate IK. They include *Lumasaba*, *litungu* and *kipindi cha watoto* and social online platforms.
- IK programmes do not adequately cater for all actual and potential audience in the West FM listenership topographies in terms of coverage, penetration and language.
- West FM Radio heavily rely on IK custodians in dissemination of IK domains and practices.
- Besides the radio station, there are other means of disseminating IK that include individual traditional festivities, beer parties, community practices such as circumcision, marriage, funeral rites and other cultural festivals.
- IK disseminated by West FM has contributed to acceptable moral behavior, family values, family planning, alternative medicine and healthy living.
- Many facets of society that affects economic development are addressed by the IK programs. They include: Sustainable agriculture, food security, self reliance and apprenticeship among others. IK dissemination has resulted into improved livelihoods, enlightened citizenry etc.

VI. CONCLUSION

Despite the challenges associated with the IK programmes, West FM has made positive contributions to the wellbeing of society. Among the areas that the station has contributed positively to society through its IK programmes are, but not limited to society acceptable moral behavior, family stability and values, intra and inter-ethnic relationships, creating awareness about communities' historical backgrounds and cultures, enlightened society, agriculture, food and general security matters.

VII. RECOMMENDATIONS

- There is need for a comprehensive national legislative and policy framework to streamline the management of indigenous knowledge in the country. The policy should be clear on what comprises indigenous knowledge, ownership and penalties for violating ownership rights.
- There exist no policy on research at West FM, therefore, the station should consider developing a policy on Indigenous Knowledge and create a full-fledged IK research division that will undertake research on issues regarding IK and ensure that they are appropriately harvested, organized and disseminated to the intended audience.
- The IK custodians should nurture the youth in these programmes for purposes of succession management and transition in the IK field to avoid likely vacuum in case of demise of existing custodian(s).

- West FM should avoid relying on theoretical studio talk shows to disseminate IK; it should backup the programmes by initiating field visits and road shows by experts targeting specific segments and functions of society for purposes of harnessing and disseminating IK. Such field visits and road shows should target the youth, women, families, the disadvantaged, farmers, and business people among others. Participating in community functions such as funeral, circumcision ceremonies and music festivals among others is also encouraged as a means of disseminating IK.
- As holders of indigenous knowledge, indigenous people have the right to be consulted and be fully involved in making decisions that affect their knowledge and livelihoods.
- To address the challenge that some of the young people have negative attitude and prejudiced feelings over IK, West FM should seek for more resources to invest in aggressive campaigns and marketing of IK as a valuable resource for success in life. In fact, the youth should be involved in driving the process in order to attract the youth constituency.
- Whereas this study narrowed itself on domains of indigenous knowledge in the context of West FM Radio, further research should be done on matters of indigenous knowledge discovery and harvesting by media.

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