

Indigenous Knowledge Systems in Zimbabwe: Juxtaposing Postcolonial Theory

by

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Abstract

This paper argues that indigenous knowledge systems' emergence via Zimbabwe as an example is more than a case of a sudden realisation on the part of the international community (especially from Western scholars of the former colonised people's knowledge systems), which instead asserts that the indigenous people themselves have, and continue to bring forth new insights and 'new' knowledge systems and thus beyond just a quest of a people who want to bring their knowledge to the attention of the global membership. Hence, it is a case of peoples who are reclaiming their identity as well as asserting their visibility begun by reclaiming their national freedoms and curving nations out of former colonial empires that were largely dominated by the United Kingdom, France and Portugal. The paper also notes that indigenous knowledge systems (IKS) are a movement not only against the vestiges of colonialism, but also of neo-colonialism. Finally, the paper argues that IKS is also in some way, some form of the former colonised getting back at the former colonial powers and their knowledge systems, and asserts that the world today is in the grips of global warming and other calamities because of the practices of the West that are driven by greed, and not the need for living within one's means.

Introduction

This paper analyses some aspects of the emerging field of indigenous knowledge systems (IKS) which are also known by other names such as indigenous ways of knowing (IWK) and ethno-science. This area has captured the attention and respect of international scholars but also gained the support and recognition of the United Nations (UN). The research argues that this is especially so after the United Nations Conference on International Development, also known respectively as the Earth or Rio Summit of 1992. It attempts to highlight the fact that IKS have their origins in colonialism. The paper also argues that the fact that they did not die as a result of conquest makes it clear that while imperial conquests were not only largely military but were also meant to purge the colonies of what were referred to as heathen and backward practices, they failed to displace and dislodge some knowledge systems of the indigenes.

The paper also notes that post-colonialism is not a recent development that came about because of the end of colonialism had become a reality for most of the formerly colonised. It is something that came into being immediately after the colonialists had set up their structures. To have a better understanding of indigenous knowledge systems and post-colonialism, as well as how these two cultural theories are intertwined, it is necessary to have a brief exposition of each one of them.

Indigenous Knowledge Systems

Indigenous knowledge systems are a body of knowledge, or bodies of knowledge of the indigenous people of particular geographical areas that they have survived on for a very long time. The <http://www.sedac.ciesin.columbia.edu> website defines IKS as local knowledge that is unique to a given culture or society. They are knowledge forms that have failed to die despite the racial and colonial onslaught that they have suffered at the hands of Western imperialism and arrogance. IKS are forms of knowledge that have originated locally and naturally (Altieri 1995:114). According to Ermine (cited in Hammersmith 2007:2), they are linked to the communities that produce them. He observes:

Those natural communities are characterised by complex kinship systems of relationships among people, animals, the earth, the cosmos, etc. from which knowing emanates.

These knowledge forms are known by other names, and among them are indigenous ways of knowing (Nyota and Mapara 2008), traditional knowledge, indigenous technical knowledge, rural knowledge as well as ethno-science (or people's science) (Altieri 1995:114). Indigenous knowledge systems manifest themselves through different dimensions. Among these are agriculture, medicine, security, botany, zoology, craft skills and linguistics.

In matters relating to security, especially of properties like homes and livestock, the indigenous people developed some mechanisms that are still used in some rural areas to monitor their properties. They have also developed traditional ways of weather forecasting that helped them to plan their activities for at least two to three days in advance. This knowledge was very useful especially in summer and immediately after harvesting when crops like finger millet would be in need of thrashing and winnowing. Indigenous ways of knowing have also brought forth useful knowledge on medicine and health. In fact, their resilience in this area led to the recognition that traditional healers or alternative medical practitioners got in Zimbabwe in 1980. They were formally recognised and an association to register practitioners called the Zimbabwe National Traditional Healers' Association (ZINATHA) was formed. The use of for example, proverbs is another case of ethno-knowledge that has been used in both judicial and governance matters. In short, IKS are those forms of knowledge that the people of the formerly colonised countries survived on before the advent of colonialism.

They are knowledge that was swept aside, denigrated by the colonialists and their sciences as empirical and superstitious as they sought to give themselves some form of justification on why they had to colonise other people's lands. As they occupied these countries, they did not only subject the indigenes to inhuman treatment. They also took away their lands and renamed these using names from the metropolis, and added insult to injury by claiming that the indigenes were in the dark and were backward.

Postcolonial Theory

The postcolonial theory (also written as post-colonial) is an area of cultural and critical theory that has been used in the study of literary texts. It deals with the reading and writing of literature written in previously colonised countries. Postcolonial theory may also be literature that was written in colonising countries (the metropolis/centre) dealing with colonisation or the colonised people. The theory also focuses largely on the way in which literature by the colonisers distorts the experience and realities of the colonised, and inscribes the inferiority of the colonised while at the same time promoting the superiority of the coloniser. The postcolonial theory is also about the colonised and formerly colonised announcing their presence and identity as well as reclaiming their past that was lost or distorted because of being othered by colonialism.

According to *Wikipedia*, post-colonialism is not just a literary theory that deals with the literature produced in countries that were former colonies of countries such as Britain, France, Portugal and Spain. It also deals with the cultural identities of the colonised peoples, focussing largely on their dilemmas that relate to attempts at developing national identities after the demise of colonial rule. It also deals with the way in which writers articulate and celebrate that identity. As a theory, it is also anchored on binary oppositions where white is presented as superior while black and oriental are inferior. In all representations, in both the arts and sciences, the West is always presented as the standard, while non-Europeans are inferior and have to have their sensibilities and values cultivated so that they become like those of the Europeans, or at least approximate them.

Postcolonial theory has among its major proponents Franz Fanon and Edward Said. In his book, *Black Skin, White Masks*, Fanon suggests that colonialism, because of its explicit promotion of white racial superiority over non-white colonial peoples, has created a sense of division and alienation in the self-identity of the colonised. He argues that under colonialism, the history, language, culture, customs as well as belief systems of the white coloniser are to be considered as universal and normative as well as superior to the knowledge systems of the colonised that are treated as the inferior other. The proliferation and perpetuation of this myth leads to a strong sense of inferiority in most of the colonised such that they adopt almost all of the coloniser's identity as their own. He asserts that they end up using the coloniser's language, culture and customs.

The result is that most of the colonised get alienated from their cultures, and some even attempt to bleach their skins so that get as close to the colonisers' colour as possible. This is the height of alienation from oneself as Fanon (in Ashcroft, Griffiths and Tiffin 1995:325) comments:

As I begin to recognise the Negro is the symbol of sin, I catch myself hating the Negro. But then I recognise that I am a Negro. There are two ways out of this conflict. Either I ask others to pay no attention to my skin, or else I want them to be aware of it. I try then to find value for what is bad – since I have unthinkingly conceded that the black man is the colour of evil. In order to terminate this neurotic situation, in which I am compelled to choose an unhealthy, conflictual solution, fed on fantasies, hostile, inhuman in short, I have only one solution, to rise above this absurd drama that others have staged around me to reject the two terms that are equally unacceptable, and through one human being, to reach out for the universal.

As Fanon perceives it, the colonised must first fight for the liberation of their nation. It is only when the nation is free that the formerly colonised can reclaim and reconstruct their own history and culture.

Edward Said is another major proponent of the postcolonial theory. In 1978, Said published *Orientalism*. In this book, he analyses the stereotypes and the colonial assumptions that are inherent in Western representations of the 'Orient'. To Said, the 'Orient' is a term that the West uses to refer to the Arab world, whose spatial spread is in North Africa and the Middle East. In his publication, Said argues that the Orient is represented as inferior to the Occident (the West) that is depicted as superior. It is the Occident's Other. Said further asserts that the Orient is viewed in the West as having no history of its own, but one that it got from the West. The Orient, as Said perceives, is seen in Western eyes as strange, bizarre, odd and irrational. While the West is represented as masculine, active and dominant, the Orient is viewed as feminine, passive and submissive. Boehmer also confirms the racial superiority that the West manifested when she writes:

In this drama, natives remained natives: the simple children and the subtle savages in opposition to whom the colonialist defined his selfhood, first as European, one of a 'superior kind', but also as a man. For masculinity too characterized colonialist action (1995:63).

Boehmer's observation further confirms the binary oppositions that exist between the colonised and formerly colonised on the one hand and the colonisers/former colonisers on the other.

An analysis of the above ideas as given by Fanon, Said and Boehmer highlights the fact that postcolonial theory is largely a response by the formerly colonised to their being treated as the inferior other. What is also clear about this theory is that it evolves around identity and representation. This quest for identity and representation makes it clear that indigenous knowledge systems and the postcolonial theory are not just interwoven but are two sides of the same coin.

Indigenous Knowledge Systems as Postcolonial Theory

IKS highlight the fact that postcolonial theory is not just about the formerly colonised people's response to the colonial legacy by writing back to the centre or by even moving the centre as Ngugi (1997) proposes. They are also about the formerly colonised writing back to the centre and highlighting their past achievements and advances that were in some instances disrupted by the advent of colonialism. Besides focussing on past achievements, the formerly colonised also emphasise the enduring quality of some of their knowledge and belief systems.

IKS are more than just a displaying of the knowledge and belief systems of the formerly colonised. They are one of the forms of responses to the myth of Western superiority. They are a way in which the formerly colonised are reclaiming their dignity and humanity that they had been robbed of by colonialism. They are also an effort to show the world that they are not just the other or the significant other, but equals to the former colonisers. By bringing forth achievement examples of the formerly colonised, they are also asserting their visibility. IKS are attempts to put the record straight on several issues, among them those that relate to history, education, architecture, philosophy, language and science, stating that the formerly colonised have been either misunderstood or were deliberately ignored, because if they and their knowledge systems had been acknowledged by the colonisers, there would have been no justification for colonialism.

IKS as postcolonial theory also attempt to remove the tag of being called the other and relabeling the West as the other that is not only greedy, but also murderous, adulterous and myopic. The same Western world is also presented as destructive and unappreciative.

As an extension of the postcolonial theory, indigenous knowledge systems have highlighted among the past glories and achievements of the formerly colonised, the architectural successes of the pre-colonial period. Scholars like Bhebe (2000:7-8) have pointed out that structures like the Great Zimbabwe Monuments, that have been declared a world heritage site are a clear indicator of the architectural prowess of the pre-colonial Shona who built it. Other structures that Black Africa takes pride in are Mapungubwe in South Africa and Manekweni in Mozambique (Garlake 1992:64).

Scholars and archaeologists of Africa have gone further and pointed out that the success of Blacks in architecture and other related issues is not something that is confined to Southern Africa. Archaeologists like Garlake (1982:1) do not just mention that Great Zimbabwe is the largest ancient building in Africa, but also highlight the fact that while the great Zimbabwe culture was flourishing, other developments were taking place elsewhere in sub-Saharan Africa. Among these are the carved churches of Lalibela that were hewn out of solid rock (Garlake 1992:6; Emeagwali, www.africahistory.net).

When Blacks in Zimbabwe refer to their past achievements, they argue that technological advancement was not something that was brought to Africa by colonialists. It is something that was already there. There is evidence for example, that iron smelting was taking place on the continent and especially in what is today Zimbabwe long before the British and other Europeans docked on the African shores (Garlake 1982:7). Even white historians like Randles also make it clear that at the height of the Portuguese with the Shona on the Zimbabwean Plateau, Blacks had become specialists in metallurgy, that some of the produce of their labour was bought by the Portuguese for re-exportation to Genoa in India to make guns (Randles 1979:52). Such arguments are genuine. They are given to counter those who peddle the lie that Africa was backward and had no history of her own. In fact, what becomes clear is that in an effort to create a justification for the conquest and parcelling of Africa, the Europeans had to create the lie that Africa was in need of Western science and other forms of knowledge since she had none of these. These myths led to the blossoming literature that portrayed Africa as the heart of darkness that needed European light, sweat and blood to become alive. Other writers like Haggard presented Africa as backward and a place that needed white male intervention for it to be tamed (*King Solomon's Mines* 1885; *She* 1887). All these functioned as a justification for the occupation of Africa.

Africans have responded to their negative portrayal by also writing literature that highlights the disruptive nature of Western institutions. In his novel *Things Fall Apart* (Achebe 1985) has shown that before the advent of colonialism in Eastern Nigeria, among the Igbo, there were institutions that served their society successfully but were disrupted by British imperialism. Ngugi wa Thiong'o in the novel *The River Between* (1965) also presents a picture that depicts Western Christianity as a form of religion as something that is disruptive to the African traditional way of life. In Zimbabwe, novelists such as Mutasa (1990, 1991) and Matsikiti (1995) have highlighted the successes of the pre-colonial Shona in architecture and metallurgy. Matsikiti also presents the Shona as people who were involved in international trade since they bartered goods with the Portuguese and Arabs.

IKS manifest themselves further as an extension of the postcolonial theory when they focus on an area like education. The impression that has been given is that education came to Africa because of the missionaries. That is only partly true if one looks at the involvement of missionaries in the education of Blacks in the colonial states.

However, to say that Africans had no sense of education and therefore no education is not only a mockery but also a gross misrepresentation of facts. Africa had institutions of higher learning as is evidenced by the University of Timbuktu whose library and other related paraphernalia were recently excavated. Besides the evidence of the existence of this university that is said to have come up at around the same time with the twin British institutions of Oxbridge, education in pre-colonial Africa was also by elders. It was imparted to the youngsters through different forums and means. Among the Shona, young men who were getting into adolescence were taught skills such as hunting by being taken on fishing and hunting expeditions. They were also taught at the *dare* (homestead meeting place for males) to make for example fishing traps (*maduwo*) and other implements like hoe handles. It was an education that had a utility value. Besides getting education at the *dare* youngsters were also taught by the paternal and maternal uncles and aunts. Also, young women were given an education that was called *yepapfihwa* (education from the hearthstone). This was given to them in the cooking house where women usually gathered. Their education was intended to prepare them for the duties of motherhood and the raising of the family.

The other means that the Blacks used to teach their youngsters included among others proverbs, riddles, folktales, songs, legends and myths. Proverbs can be defined as summary statements of generalised truths that have been accumulated through the experiences of preceding generations. Their educational value lies in the fact that they are used by elders to teach youngsters about experiences of the past that they should emulate or avoid. Among the Shona these teachings are usually preceded by the words: “*Vakuru vedu vanoti ...*” or “*Vakuru vedu vaiti ...*” (Our elders used to say ...” or “Our elders say ...”). The appeal to the *vakuru* who may belong to the dead or are very much advanced in age also comes from the Shona proverb that states, “*Nzira inobvunza vari mberi.*” (Literary: You should ask those who are ahead for directions to your destination, viz: You should ask the experienced for assistance). Proverbs were also used to inculcate in the youngsters a sense of responsibility. For example, among the Shona, a youngster could be advised not to waste time on issues that had no value. An elder could say to her or him, “*Gunde repwa rinonaka asi hariiswi mudura*” (The green stalk of maize may be sweet but it cannot be harvested and stored in a granary). From what is in this proverb, it is clear that the youngsters were taught using examples of experiences that they may have gone through or observed.

Riddles were also used to foster quick thinking on the part of the youngsters. Riddles have proven that IKS are not something that is static, but a form of education and entertainment, that some people today call edutainment, that is a combination of education and entertainment. Lusweti (1984:30) makes clear the objectives of riddles when he states that there is a type of art form that involves metaphorical or poetic comment on things within the environment. He further states that riddles are closely related to proverbs, but they are usually meant for the education and entertainment of children.

Youngsters would be entertained through their creative prowess as they create proverbs like, “*Vasikana kundurai marokwe tinakirwe*” (Girls, pull up your dresses so that we can enjoy ourselves). The answer to this riddle is “Bananas”. The idea that is captured in the riddle is that one has to remove the cover of the bananas, which are represented by the dress in the riddle. Among the Gikuyu, there is the riddle “*Ndathii na mândũ lîtenjîĩĩa hurũka!*” (I walk with a companion who will never tell me to rest!) It refers to a shadow (Lusweti 1984:32). The children in the examples above learn about their environment but in an entertaining way.

Songs are another tool that was used as a form of education. They could be used to memorise the qualities of a good wife/husband as is given in the songs “*Sarura wako*” (Take your pick) or to teach about chiefs and trees that are found in one’s area of residence as is given in the songs “*Dudu muduri*” and “*Tsatsa ndikatsandika.*” When these forms of education are compared to the Western ones, for example the English nursery rhymes and songs, it can be observed that these do not relate to the African child’s experiences. In fact, the education that Blacks have inherited from the West has not empowered them, but has incapacitated them and has sold them the lie that they should be employed to make progress in life and to raise the standard of living. This education is quiet of the importance of the quality of life over the standard of living. It is just an education that has turned Blacks into a proletariat.

Hammersmith (2007: *iii*) points out that the study of IKS is aimed at as part of the struggle for the indigenous people’s reclamation, revitalisation as well as the renewal of their knowledge systems. The issue of reclamation is very clear when the indigenous people anywhere in the world point out that they have had successes in the past for example in other fields like health and medicine. Scholars like Rodney (1982) also argue that some ailments and other types of disease that have afflicted the colonised and in some instances decimated them are a result of Western colonialism. Boehmer (1995:70) comments on the irony of the fact that the so-called civilising mission of the Westerners resulted in the transmission of infections that include sexually transmitted diseases like gonorrhoea and syphilis as they moved to the Pacific Islands from Europe. The argument here is that while the Westerners may argue that they brought with them advanced medical knowledge, the formerly colonised also point out that the advent of white imperialism was a medical and health disaster for the colonised. The formerly colonised also have a wealth of medical knowledge, that not only sustained their populations prior to colonisation, but that also continued to be relied on long after the colonies had been set up.

Among the Shona of Zimbabwe, when one was suffering from malaria, there was the use of plants like *chiparurangoma* (*borreria dibrachiata*) as a form of treatment. It was administered orally and one was usually healed of the ailment within twenty-four hours. The Shona also used the shrub called *muveghonye* (*canthium huillense*) to treat and heal wounds that had become septic on both human beings and livestock. Other plants like *chikohwa/gavakava* (aloe) were and continue to be used to heal people who are suffering from stomach ailments.

The same plant was, and in some places continues to be used as preventive medicine for new castle disease in chickens. Among the Manyika, the *mumwahuku* plant's leaves (*cassia didymobotrya*) were pounded and mixed with water to prevent chickens from being affected by *chitosi* (a type of poultry sickness). Another plus that sets indigenous medical and veterinary practice ahead of the Western one is that which Emeagwali (www.africahistory.net) highlights. She points out that African Traditional Medicine (ATM) is holistic since it makes attempts to go beyond the boundaries of the physical body into the spiritual. She contrasts the two types of medicine by pointing out that bio-medicine is mechanistically derived from the germ theory of disease, while on the other hand ATM can be classified as mind-body medicine.

The indigenous people of Africa have contributed immensely to the medical field. In her paper, Emeagwali (www.africahistory.net) further argues that Western pharmaceutical companies often send their agents to tap the medical knowledge of Africa's traditional pharmacologists. Out of Africa the world has benefited from plants such as the African willow (South Africa), the *hoodia* plant Namibia and *iboga* (Gabon and Cameroon) to treat ailments such as cancer, obesity and drug addiction. The World Health Organisation (WHO) has acknowledged these contributions. The United Nations Conference on Environment and Development (UNCED) in its *Political Declaration and Plan of Implementation* at the Johannesburg Summit in 2002 also acknowledged the contribution of IKS to the medical field. This is amplified in paragraph 54 (h) that states:

Promote the preservation, development and use of effective traditional medicine, knowledge and practices, where appropriate, in combination with modern medicine, recognizing indigenous and local communities as custodians of traditional knowledge and practices, while promoting effective protection of traditional knowledge, as appropriate consistent with international law (2003:49).

This acknowledgement by UNCED is an indication that Western knowledge systems that have been forced upon the world are not the only important knowledge systems but are representative of one side of humanity. This realisation points out to one observation – that universal scientific truths are products of the environments that lead to their emergence. They are not a monopoly of only one race – the European one.

IKS go further in countering the Western world's representation of humanity in binary terms as 'them' and 'us' in the creation and dissemination of knowledge. The thrust of IKS as postcolonial theory is to present the colonised and formerly colonised as subjects of history, and not as people who became visible because of their contact with Westerners. One area that the formerly colonised bring out as an example of a field in which they have been excluded is that of environmental management. In pre-colonial Zimbabwe, indigenous knowledge ensured that there was good land use.

There was utilisation of slopes for cultivation known as *matema* in the Sanyadowa area of Nyanga. The use of these areas was stopped by colonial conservation authorities, yet when they cultivated these slopes, they used *chinjiri* (terraces) to minimise the effects of erosion that resulted from run-off water. The colonial authorities did not appreciate these initiatives but probably saw them as relics of history. This practice of using *chinjiri* is still being practiced in Nyanga District's Tombo area (Duri and Mapara 2007:103). Wetlands were also well managed. The indigenous people used them for growing rice and other crops like yams and bananas. Ranger comments on how the indigenous people who were domiciled around the Matopos (Matombo) used wetlands for agricultural purposes prior to the arrival of white colonialists. He observes that the Matopos *vleis* are dry from May to July and from August to October, 'water begins to run from the rocks'. These *vleis* become waterlogged in summer. Under the Mwali rotation, the local people grazed their cattle in these wetlands in the three dry months of the year. In August, pumpkins, green mealies, vegetables and rice were planted. It was in November that rain-fed cultivation began and the harvest of this crop would be in next August. During the rainy season when the *vleis* are waterlogged, cattle were moved away to dry land for summer grazing (1999:24-5). It is clear from Ranger's observation that the local indigenous people followed a system that was sensitive to the environment.

When the white colonialists entered Zimbabwe, they saw the indigenous populations as a bunch of ignoramuses that failed to tame 'nature' for their benefit. According to Ranger (1999), the white travellers, painters and other treasure hunters who passed through the country's hills ignored millennia of occupation, centuries of cultivation, the paintings in the caves, the graves and places of pilgrimage. While they did not ignore the cave shrines, they interpreted their existence as evidence that the local people feared the tyranny of Nature. To them Nature had to be tamed. If they had bothered to observe, they would have realised that the local inhabitants were not afraid of Nature, but were at peace with their environment.

In agriculture there are certain practices that were dependent on in the past, which have to some extent persisted to this day. The colonialists brought with them the practice of monoculture whereby one crop is planted in one field. This practice was imposed on most indigenous farmers as one that was modern and effective. Although most of the farmers fearing possible arrest followed this 'new' method, some continued to practice polyculture where more than one crop was planted in one field. Polyculture has proven to be a better agricultural practice when compared to monoculture in the sense that it helps among other advantages, maintain soil moisture and reduce soil erosion caused by run-off water. Matowanyika et al. (cited in Kunnie 2000:35) amplify the importance of this practice when they state:

The way that extremely different crops are grown together on the same plot of land [maize, plantain, taro, groundnuts etc.] strike Western agronomists as something deeply primitive and archaic. However, on closer examination one notes that the soil is under permanent cover, thus reducing sun exposure and heating of the surface soil; the variety of different root systems probably ensures a better utilisation of the soil volume; the succession of plant growth cycles means that cover is provided during heavy [and most erosive] rains, when the large leaves [of crops] protect soil; utilisation of solar energy is probably higher; the risks of parasite infections are reduced.

What Matowanyika et al. are saying is true of most of sub-Saharan Africa and their words make clear the advantages of polyculture over monoculture despite the fact that Western agricultural experts view this practice as primitive and archaic.

Intercropping has also been found to have advantages in weed control. It has been widely used in pre-colonial Africa. In Zimbabwe, it has been used as a method of weed control as well as to maximise land use. According to Altieri, (1995:215) research that has been documented on polyculture has documented the successes of this practice in Nigerian cropping systems. Akobundu (cited in Altieri 1995:215) reported that in terms of crop yields and weed suppression, smother crops of *egusi* melon and sweet potatoes could replace three hand weedings if these crops were sown into sole-cropped yam, sole cropped maize as well as polyculture combinations of yams, maize and cassava. Zoufa et al. (in Altieri 1995:215) also reported that intercropping smother crops of groundnuts, cowpeas or melons with cassava/maize as the main crop gave superior weed control and produced high total yields. These methods are cleaner and safer when compared to the use of herbicides because they have no negative impact on the environment.

The indigenous peoples of Africa and elsewhere also had effective ways of weed and pest control. One other method that they used in weed control was selective weeding whereby not all weeds were weeded out (Altieri 1995:120). Among the Manyika of Sanyadowa in Nyanga District in Zimbabwe, the researcher found out that the indigenous farmers leave out certain weeds as a form of moisture control. Altieri says that this method of 'relaxed' weeding is viewed by some agriculturalists because of lack of labour and low return for extra work when in fact a closer look at this practice reveals that these weeds serve purpose. They are used as food and medicines (Altieri 1995:120). The people also made efforts to control pests like birds and baboons. During the planting period, there were deliberate efforts to plant at the same time. The purpose was to minimise the damage to the crops that would result from birds by spreading and sharing the 'damage'. Those who lagged behind and or were too ahead of others risked have reduced yields because of their timing. This practice was common in places like Buhera and some parts of Nyanga North in Zimbabwe where the cultivation of *mhunga* (bulrush/pearl millet) was a common practice.

Taboos were also used as a way of minimising the raids from baboons. There was the taboo that people were not supposed to harvest wild loquats (*mazhanje*) because if they did so it was taboo. The main reason was that baboons feed on these fruits among other food items that they identify, if they found no *mazhanje*, and then they would raid people's fields. If *mazhanje* were available, their raids could be kept at bay for some time and they would not destroy new crops like maize that could as young as a week old.

In Zimbabwe, among the Shona soot was used a seed preservative. What happened was that after harvest, farmers, especially women who had acquired skills of identifying good seed varieties would collect grain and maize cobs that they would tie and hang inside their kitchens. As smoke wafted from the hearth, it would coat the grains. In this manner, the grains were protected from grain borers and rats because of the bitter test that would result from the soot. By employing this method, the people ensured that they could use the seed even after two or three seasons. When this method is compared to the current ones that are used by seed houses, it can be observed that it is very difficult to keep today's seed for more than one season. The short life span of today's seed is an indicator that Western science does not always benefit those who are interested in long term planning, especially those who may want to stock seeds for more than two seasons.

Another agricultural practice of the indigenous people of Africa that reflects their ingenuity in as far as scientific knowledge is concerned relates to food processing and preservation. Indigenous farmers in pre-colonial Africa brewed beverages like beer and *mahewu/magada* (sweet beer) from malt that was derived from crops like pearl millet (*mhunga*), sorghum (*mapfunde*) and *njera/zviyo* (finger millet). They also fermented milk to make what the Ndebele of Zimbabwe call *amase* (sour milk). Okagbue (cited in Emeagwali www.africahistory.net) points out that the food processing knowledge that was based on fermentation:

lies in the nature of the micro-organisms involved fermentation, and microbially induced change of the base product; the nature of the enzymatic relations which take place; and the specific nature of the end-product in terms of nutritional and preservative qualities.

Nyota and Mapara (2007:6-8) also point out that pre-colonial Africa had some ways that its people used in preserving and preparing food. The dried meat and vegetables that the Shona call *chimukuyu* (biltong) and *musone/mufushwa* (dried vegetables). This was to ensure that the meat and vegetables would not go to waste especially if these had been got in abundance at one time. *Chimukuyu* could be made by cutting meat into long stripes. These were then sprinkled with salt or the ash of certain plants that were used as a substitute for salt. The meat was then hung to dry without being boiled. This was especially so if people were out hunting in a *chiradza* (hunting expedition/safari) where they away from home for a number of days. If the meat was from a domestic beast, it could dried in the same manner described above, but it was usually boiled before being put out to dry. Vegetables were cut and dried, or they were first boiled and then dried. Mushrooms (*hwowa*) had to be boiled first before being dried. Fish were smoked while birds and other small animals like mice and hare were first boiled and then dried on the fire or also smoked.

When preserving grain, the first thing that the indigenous people did was to ensure that the place on which they wanted to erect granaries was not susceptible to moisture. Among the Hwesa of Nyanga North, and the Budya of Mutoko, granaries were erected on bare expanses of rock (*ruware*). This also helped to guard the granaries from termites. Where there were no *ruware*, the granaries were perched on stone pillars for the same reasons mentioned above. After the granaries had been erected, the inside of the grain bins was lined with cow-dung that acted as a further protection against grain borers. After this, the granary was sealed to protect the grain in the event of an accidental fire that would destroy the thatched roof.

The Tonga of the Zambezi Valley, and domiciled in both Zambia and Zimbabwe as well as Malawians had and still have a way of preparing fish that it does not become a threat to consumers (Nyota and Mapara 2007:6). Because fish, like pork and chicken meat is susceptible to salmonella, the virus that can be fatal if human beings ingest it, they cook their fish for a very long time stewing it for a period of not less than six hours. This is to protect consumers from possible food poisoning. The long time that it takes to stew the fish also ensures that consumers are also protected from fish bones that may choke them or stick in their throats if they are not thoroughly cooked. The Manyika of Chief Tangwena, Nyanga East in Zimbabwe use the leaves of the *mujerenjere* tree (*albizia gumifera*) as a catalyst to hasten the ripening of bananas.

According to the website <http://www.sedac.ciesin.columbia.edu>, indigenous farmers adopt a wide range of indigenous agricultural and land use practices. These are based on generations of experience, informal experiments and intimated understanding of their bio-physical and social environments. This observation is true as is borne out by the Manyika in Chief Tangwena's area, Nyanga district, in Zimbabwe. The Tangwena people have through experience based on observation of weather patterns and bird behaviour learnt the art of weather forecasting. Even though these people do not have the technology that is available today they can through observing their fowls and other birds tell whether the rains are going to stop or not. They have developed the skill of forecasting the weather by at least two days and at most three weeks (Nyota and Mapara 2007:21-2). If the birds and their poultry come out to feed when it is raining, they can foretell that for at least the next few days there would be a *mubvumbi* (drizzle). If the birds and poultry do not come to feed, it means that the rains would not last the whole day. The same people can also foretell whether rains are going to fall in the next hour or two if they hear the sound of the *dzvotsvotsvo* (rain bird). If one is planning a journey the best way forward would be to keep it in abeyance unless it is less than a kilometre away. If one is out on a journey or expedition, s/he should start looking for shelter before the rains start falling.

IKS did not only manifest themselves in matters relating to agricultural production and weather forecasting. Through them, today's people also learn about how offenders were rehabilitated. Among the Shona an offender was not always ostracised and chased away from a place unless it had been proven that s/he was unrepentant. If for example a man had stolen, or had committed a criminal offence, he was not locked up as happens with the Western system of justice.

He was brought before a court and after judgement had been passed and he had been fined, the court councillors rebuked him. If after the rebuke an announcement had been made about a beer party somewhere, the offender was also invited. If he appeared to be not interested, one could say to him, "*Mhosva haiendi pamuti asi pamunhu*" (Offences are not committed by trees but human beings). The purpose of such a statement was not to condone crime. It was meant to be one of the first steps in the rehabilitation of the offender. One had to show contrition by not committing another crime or offence because society would have been clement to him. It was only after one did not reform that s/he was penalised by being sent away from the area in which s/he was staying. The reason why the traditional justice system did not lock criminals up is that they did not want to harden criminals by not accepting them back into the community. This is unlike today where an offender is not just locked up, but is also blacklisted that s/he may find it difficult to be employed again. This results in most cases in the offender committing another crime, or engaging in other criminal activities. Prisons also act as training grounds where soft criminals come out hardened.

In the former colonies, most urbanites, both indigenous and those of European extraction view their rural counterparts as backward and at times as people who live on the periphery of society and civilisation. This observation emanates from the fact that most rural areas in Africa and other former colonies have little or no facilities that are similar to those found in the urban areas. Their urban counterparts usually refer to the as *vekumasticks* (those from the sticks/the bush). This partly explains why in Zimbabwe when one wants to refer to how 'backward' one is s/he mentions the most remote rural area from her/his closest urban area. For example, if someone in Gweru is referring to someone as backward s/he says that the person comes from either Binga or Mazvihwa. This perception of the rural folk as dimwits who need a little dosage of urban wisdom is a preconceived notion that is erroneous.

In urban areas, there are people who usually loiter on the roads in the residential areas. If a resident were to ask one of them what they would be doing, s/he would be told to mind her/his own business. These same people would remind whoever would have asked that they are not on anyone's property. In most cases when the police are informed they normally respond by telling the person who would have reported that people who are walking on roads are presumed innocent unless they are caught committing an offence. This is contrary to what happens in the rural areas where an unknown person is greeted. The urbanites view such an act as a sign of backwardness maintaining that only those who are acquaintances should greet one another or if someone has to greet a person, the one who initiates the act would be in need of assistance like asking where a certain road or building can be found. They do not even bother to find out why the rural folk greet people who will be passing by. The reason why the rural people do this is linked to security. They do not just greet a person. If the greeted person is unknown to them they ask, "*Munhu ndiani? Hatina kuziwaba*" (Who is the person? We have failed to recognise you). The greeted person is expected to give her/his name.

When the person they have asked gives her/his name they may then ask again, “*Itewo here?*” (Are you on a good errand?), or “*Kwakanaka here kwamabva?*” (Is everything all right where you are coming from?) When the respondent would again have given her /his answer, they would then ask where s/he is heading. If they are satisfied with the person or her/his responses, they send youngsters who pretend to be shooting birds or looking for lost cattle to monitor the person. If the person is bent on some criminal activity, s/he will know that s/he is under surveillance and will therefore refrain from committing an offence because the chances of being caught are very high. In the past, this practice was also used in tracking and identifying potential spies. If one could not successfully explain where s/he was heading, s/he was likely to be arrested and brought before the chief of the area.

Conclusion

This paper has argued that IKS are an extension of the post-colonial theory through highlighting the knowledge systems and successes of the formerly colonised that had been condemned or denied by the colonialists. Some of this scientific knowledge was labelled unconventional and as not based on empirical evidence. It has gone on to assert that indigenous knowledge systems are knowledge forms that are characterised by integrated systems of cognition, belief and practice (Williams and Muchena 1991:55). As post-colonial theory, IKS via Zimbabwe have vital information that is embedded in proverbs, myths and some religious rituals, and those who understand the languages that carry these practices can at best appreciate them.

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