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# **African Indigenous Knowledge: An Underutilised and Neglected Resource for Development**

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## **Abstract**

Indigenous knowledge points to the fact that Africa has been able to generate, test and apply knowledge through its own methodologies and approaches. This knowledge sustained communities for years prior to colonialism which somehow downplayed the value of indigenous knowledge and promoted western knowledge systems. Colonialism created dependence on western knowledge systems and Africa has over the years neglected its own rich indigenous knowledge. This paper sought to highlight challenges faced in the quest to incorporate IK into developmental goals and projects. Furthermore, the study also sought to recommend ways through which Africans can promote IK in its developmental projects. A desk research was carried out to show the challenges faced in African indigenous knowledge. The results of the study showed that there was a need for policies, legislation, standards, research capacitation, investment and local inclusion in indigenous knowledge research, documentation and use. The study also pointed to the fact that indigenous knowledge could be tapped into for developmental goals and projects.

**Keywords:** Indigenous knowledge, development, research, investment, education, Africa, medicine.

## **Introduction**

Indigenous knowledge (IK) is at the heart of survival and sustenance of communities all over the world. Prior to the advent of scientific knowledge and systems, IK sustained communities

in and around Africa. IK has continued sustaining communities as the World Bank Group (2004) postulates that IK provides especially poor communities with problem solving strategies, contributes to global development knowledge and is relevant to the development process. Bodeker (2001) also highlights that IK is utilized in some local sustainable development activities, especially environmental protection and agriculture and it is increasingly used in palliative health care for HIV and Aids sufferers in Asia and Africa. Indigenous knowledge is also the social capital of the poor, their main asset to invest in the struggle for survival, to produce food, to provide for shelter or to achieve control of their own lives (World Bank, 2013). The importance of IK cannot be disputed especially now that the world is facing a plethora of challenges which cannot all be solved by mainstream science. Despite the many advantages brought about by IK, Domfeh (2007) laments that the role and importance of IK has not been fully assessed in Africa. Ezeanya (2015:9) further notes that Africa's contemporary approach to development is a complete deviation from the knowledge, principles and values of the indigenous communities. Developmental projects have side-lined Africa indigenous knowledge in favour of mainstream western science and knowledge. Communique (1993) posits that except for occasional lip service, little credit is given to the wisdom of traditional societies in their ability to select, over long periods of time, natural products for their continued and demonstrably safe use. In Africa, IK remains obscured by modern scientific discoveries as Tauli-Corpuz (2002:65) states that current forces of globalization continue to regard our (African) rights, our political systems, our economic systems, and our culture and knowledge systems as backward, unrealistic and romantic.

It cannot be disputed that IK systems continue to be in use informally in some communities. However, by virtue of being used informally, IK remains underutilised and side-lined and the African scientists seem to care less about local indigenous knowledge remedies and investigating or analysing African herbs for curing local ailments among other things. Indigenous knowledge held in African communities are not generally known to western scientists and western knowledge systems, however, African students and researchers are taught with western curricula and are guided by western agenda and yardstick/background information (Knudston & Suzuki, 1992). Due to decades of colonialism, cultural imperialism and the power of multi-national pharmaceutical industry, traditional healers and traditional medicines have been marginalized and their value to communities underplayed (Richter, 2005:26).

Indigenous knowledge has been defined by a number of scholars and some of these definitions which guided the researchers are highlighted in this section. Matsika (2012, 209-210) defines indigenous knowledge (IK) as the traditional and local knowledge that exists and is developed through the experiences of the local community in the process of managing the conditions or context that challenge the people's everyday life. Warren (1995) defined indigenous knowledge (IK) as local knowledge that is unique to a given culture or society and it is the systematic body of knowledge acquired by local people through accumulation of experiences, informal experiences and intimate understating of the environment in a given culture. This definition highlights the fact that indigenous knowledge accumulates over time due to a community's interaction with its environment, experiences, observations and trial and error or testing which might not be in laboratories. However, it's the understanding, continued use, experiencing and familiarity which somehow gives birth to this knowledge. This points to a very key paradigm in African traditional research which regardless of not having laboratories and modern scientific tools and machinery, was able to generate, test and apply knowledge. The African continent was able to deal with snake bites, diseases and sickness, hunger and it

was able to construct houses, palaces, bridges prior to the advent of scientific knowledge. Infertility, barrenness, and other misfortunes were dealt with prior to the advent of modern hospitals and the researchers therefore believe that investing more in researching and developing IKS will largely lead to discoveries and solutions that can alleviate problems faced by Africans and other races and people. According to Wane (2005:31) indigenous knowledge has the following characteristics;

- i. People have knowledge of and belief in unseen powers in the ecosystem.
- ii. All things in the ecosystem are mutually dependent
- iii. Personal relationships reinforce the bond between persons, communities and ecosystems
- iv. Persons who know these traditions are responsible for teaching or passing them on
- v. Indigenous knowledge is generated within communities, however, it is location and culture specific, is not systematic or documented, is oral, holistic and stresses the principle of loyalty. It has no separation between science, art, religion, philosophy, aesthetics or spirituality.

### **Problem Statement**

African IK is underutilised and neglected in developmental projects as the World Bank Group (2004) also laments that IK systems risk extension and that IK is an under-utilised resource in the development process. Furthermore, African scientists, researchers and scholars have not adequately focused on researching and harvesting the possible benefits which can be found in IK. Wane (2005) outlines that cultural resource base and local knowledge of African people are the least analysed, considered or understood for their contribution to knowledge production or even to the survival of communities specifically when compared to other bodies of knowledge. Ho et al (2003) recognise IK as an important yet under-utilised component of global knowledge for development. When people disregard their own knowledge and wisdom, it slowly gets lost and can easily be misappropriated (Battiste, 2002). The African community cannot expect developed countries to harness IK and promote it as Communique (1993) highlights that the root problems of scientific research in Africa include biases and reservations of some individuals and organisations in industrialised countries who find it difficult to accept that any good science can come from our Africa. With scientists not ready to lend an ear to communities who are the custodians and practitioners of IK, the African knowledge base will dwindle and the continent will continue spending fortunes on importing knowledge and solutions from other continents, especially from the west.

### **Purpose of the Study**

This study sought to highlight challenges faced in the quest to incorporate IK into developmental goals and projects. Furthermore, the study also sought to recommend ways through which Africans can promote IK in its developmental projects.

### **Objectives of the Study**

The specific objectives of the study were to:

- i. Establish challenges faced by IK within the African continent;
- ii. Recommend a way forward for promoting IK in Africa

### **Methodology**

The study applied a desk research as its methodology. Literature was searched for on google using search terms including African indigenous knowledge, IK challenges in Africa, IK research in Africa, IK funding in Africa, IK and development in Africa, sustainable development in Africa.

## **Literature Review: Challenges Faced By IKS in Africa**

A myriad of internal and external challenges face the development and harnessing of IK in the African continent. Investment in IK research is a cornerstone for development and knowledge production in Africa. Without investments, research, experiments, tests and equipment needed for such activities are impossible. Domfeh (2007) states that it is expected that government and its agencies will be the primary source of funding IK research, especially in the early phases of promoting and strengthening IK systems. However, Sawyerr (2004) notes the underfunding of research and research institutions in Africa which leads to generally anemic local research performance and capacity development. Mhame (2004) in Twarog and Kapoor (2004:18) highlights that key constraints on developing health care that uses local medicinal plants include insufficient investment in research and development. The lack of funding or investment in IK in Africa is also raised by the World Intellectual Property Organisation (2006) which highlights that there is little or no investment directed at maintaining or increasing the benefits of traditional medicine, which the current market is already delivering to society. Sawyerr (2004) highlights the absence of incentives for private investment in research and research capacity development in most African countries as one of the challenges facing the development of IK in the continent. The burden of disease still falls predominantly on the third world countries, yet resources are disproportionately skewed towards the health maintenance of the western world. (Baum 2001).

Another challenge bedevilling the integration of IK into African development goals is the lack of a comprehensive IK legal framework. The African Health Monitor (2010) highlights that the majority of countries have not developed national policies on conservation of medicinal plants and engaged in large-scale cultivation of medicinal plants of botanical gardens. Furthermore, there is a lack of protection of IK from bio-piracy (Takeshita 2001). Mosimege (2001) also notes that there is a school of thought which propagates that IK is in the public domain and therefore do not warrant any protection, this situation works against further collaboration with Indigenous technologists. According to Zhang (2004: 4) in the United Nations (2004:4-5) the protection provided under international standards for patent law and most national patent laws are inadequate to protect IK and biodiversity, for example, traditional skills in manual and spiritual therapies are different from those in modern practice, and there is no record of who invented them. A comprehensive IK legal framework can be one of the pillars for research and application of IK in the African continent. There are some contestations regarding the recording of IK, the argument being that IK owners easily lose moral and material ownership of their intellectual property or capital, which is renegade to third parties (Ocholla and Dlamini, 2007).

Sithole (2006) is of the view that African libraries and information centres are faced with a plethora of challenges in documenting IK and these challenges include the lack of legal frameworks at national and international level to support the library efforts. Without financial capacitation, IK research and documentation efforts cannot stand the test of time. Domfeh (2007) IKS requires dedicated funding as is with all knowledge systems. It is also recognised that IKS outputs and IK policy objectives are strongly facilitated by appropriate funding mechanisms. Financial, human capacity and technology shortages pose a challenge to the documentation of indigenous knowledge in many African countries (Sithole, 2006).

The marginalisation of IK can also be attributed to prejudices and stereotypes brought about by colonialism. Ocholla (2007) states that IK continues to be marginalized, and that this has

resulted in its limited use in the development process. This form of marginalization produced a generation that for the most, does not understand, recognize, appreciate, value or use IK producing people with an intellectually colonized mind-set (Ocholla, 2007:3). Schaffer et al. (2004) note that African universities and research institutions have not made sufficient progress in integrating IK into the curriculum. Escobar (1995:13) notes that development has relied exclusively on the modern Western knowledge system which has dictated the marginalization and disqualification of non-Western knowledge systems. Reliance on the modern Western knowledge system ultimately means that African countries, scholars, scientists and researchers wait for inventions and knowledge produced elsewhere. Sawyerr (2004) notes that as the typical African economy has become more outward looking, its leading edges have locked more firmly into external knowledge sources: local producers relying on foreign-based parent companies for research and thus under such conditions, local knowledge generation becomes increasingly uneconomic, and market forces direct resources away from support for the local production of modern knowledge. Conversely the continent will always trail other continents in terms of knowledge production and scientific discovery. Hountondji (2002) suggests that much of the existing research on African communities is still dominated by Euro-centric prejudices. Western science is seen to be open, systematic and objective, dependent very much on being a detached centre of rationality and intelligence, whereas traditional knowledge is seen to be closed, parochial, unintellectual, primitive and emotional (Ellen and Harris, 2000). The colonial research in Africa did not invest in the development of indigenous African theory building and interpretation of society, as the heart of the scientific process (Kaya and Seleti, 2013).

Another major challenge faced in the quest to co-opt IK into developmental projects is the marginalisation of IK by Africans scholars, governments, scientists, entrepreneurs and the learned. Wane (2005) laments that western systems of knowing in agriculture and medicine are considered as the only scientific systems, and governments miss the opportunities of exploiting production of pesticides and other products which can be harnessed from nature through indigenous knowledge systems. Wane (2005) illuminates that many young people do not embrace indigenous knowledge practices because they associate them with poverty, scarcity and a lack of material wealth. Communities and groups who adhered to traditional belief systems and local knowledge in health and development practices were often represented as ill-educated, backward, even un-civilised (Kolawole 2001). Shrestra (2002:107) notes that missionaries mocked and made Africans to be ashamed of IK and dismissed much of what is indigenously African as fetish, and demanded of converts to rely instead on medication imported from Europe. Africans, convinced that it is entirely founded on sorcery began to disregard indigenous medical practices and to rather patronize European medicine (Ahyi, 1997). Such a mentality has made African dependent on the west for almost everything and in the process enriching Western pharmaceutical companies, publishers, scientists and governments.

Education plays a pivotal role in enlightening communities and can be used as a vehicle to promote the use of IK for developmental goals. Education in Africa has been and mostly remains a journey fuelled by an exogenously induced and internalized sense of inadequacy in Africans, and endowed with the mission of devaluation or annihilation of African creativity, agency and value system (Nyamnjoh, 2004: 168). Brock-Utne (2000) laments that the continued dependence on external forces for education funding is a challenge for IK. Ezeanya (2015) also posits that he who pays the piper dictates the tune and thus, rather than an emphasis placed on Africa's indigenous knowledge in curriculum and in research focus areas, western curriculum and western agenda usually form the basics (Ezeanya, 2015). Ezeanya (2015) states

that traditional medicine receives little attention in Africa's educational system and research agenda. To Nyamnjoh (2012), universities and other education systems in Africa are still engaged in mimicry of the Western education system. The institutional curricula, often founded entirely on western medical systems are closed and exclude research and development of indigenous knowledge practices and systems. The intellectual and research activities in these institutions of higher learning are still designed to support the economic exploitation of natural resources including justification of the theoretical assumptions of western institutions and scholarship about the primitive nature of Africa (McCarthy, 2004; Moodie, 2003). Hountondji (2002) also notes that another salient feature of extraversion in Africa is that most academic and research activities are still carried out in colonial languages, especially English, French and Portuguese, thus undermining the development of research and theory based on indigenous conceptual framework and paradigms. Nyamnjoh (2004) further notes that the need for African universities to be competitive internationally has influenced them to try to be what other global universities are. In so doing, African universities have neglected IK.

The benefits of IK cannot be experienced fully in Africa due to the lack of formalisation of the field. IK practices are currently being held in the informal sector/unregulated economy, and are therefore subject to abuse (Ocholla and Dlamini, 2007). For IK to be used it has to be stored for retrieval, hence the need for repositories, databases and creation of finding aids thereof. Le Roux (2003) notes that the World Bank developed IK databases and some efforts have included research into IK publication patterns by Ocholla and Onyanacha (2006). However, laments that reliable content and records for such databases remain a challenge as not much empirical research has been conducted on IK (Ocholla and Dlamini, 2007). Documenting IK, establishing legislation, policies and structures to cater for IK may go a long way in bringing sanity to IK. Okello et al. (2010: 1-2) the documentation of African traditional plants is an urgent matter following the rapid loss of natural habitats, traditional community life, cultural diversity and knowledge of medicinal plants. The oral transmission of complementary and alternative medicine by old people may be detrimental to its existence as the passing down of customs from one generation to generation is in imminent danger of disappearance following that this knowledge is without written records and the old age healers are dying (Weldegerima, 2009: 400).

The world has to understand that IK originates from a different paradigm than the positivist western modern scientific knowledge. Furthermore, Africans who understand their own IK have to lead IK research, testing, use and investments as they understand their knowledge more than outsiders. Bourdillon (1989) warned that academics involved in IK research should be aware that many medicines are symbolic rather than physical in their efficacy and thus academics who assume that all herbs, or even the majority of herbs, are to be treated as equivalent to Western drugs are making the error of magic. Research into IK therefore has to be broad and have not only a positivist approach to inquiry, but one which is pluralistic and draws from grounded theories and interpretivism. Bourdillon (1989) warned that the greater confusion is in the minds of academics rather than in those of the healers and that biochemists interested in possible chemically-active ingredients of traditional medicines need to learn something of anthropology in order to see in what circumstances and combinations the medicines are supposed to work (Bourdillon, 1989).

Sithole (2006) also notes that IK is very individualistic, that is, the knowledge is communicated to the child by its parents, or it could be ancestors communicating to one through dreams, incomprehensible language to many except the recipient only. It then becomes difficult for one or an institution like a library to therefore successfully document the knowledge even though

it is important. Indigenous knowledge is transmitted orally, experientially, and is not written but is learned through hands on experience and not taught in an abstract context and its parameters are holistic, non-linear and reflect a qualitative and intuitive mode of thinking (Capp, 1997). The testing of some IK according to modern scientific principles as highlighted by Akisanya (1969) may be thus problematic if not impossible. In order to understand IK, there is a need to engage IK practitioners. However, Mosimege (2001) illuminates that the Indigenous practitioners still seem to be cast in to the background in IKS activities despite the fact that practitioners are regarded as custodians of the IK. Some IK cannot be separated from the local communities and practitioners.

Wane (2005) posits that IK is embedded in culture, and unique to a given location, it is context specific and orally disseminated. To learn indigenous perspectives requires a different method of research such as extended conversations with elders, a willingness to put aside judgements, and take up the responsibility to apply the knowledge in daily practice (Wane, 2005). Researchers therefore, have to apply qualitative techniques in trying to understand IK. Rather than rely on explicit hypothesis, theories and laws, indigenous knowledge is spiritual, cumulative and collective knowledge that is constantly renewed (Wane, 2005). Traditional knowledge tries to understand systems within a framework of wholeness rather than isolate interacting parts (Capp, 1997). Trying to take some herbs and plants to laboratories may not work as anticipated due to this wholeness of IK. Battiste and Handerson (2000) postulate that without ceremony and ritual songs, chants, prayers and relationships that accompany the healing ceremonies, outsiders cannot achieve the same effect.

The challenge is that once IK is harnessed for developmental projects, there are no incentives for local communities and custodians of such knowledge Mosimege (2001). Communique (1993) highlights that the US-based University of Toledo has applied for a patent on the use of Endod to control zebra mussels, but royalties will not go to the plant's original 'proprietors' - the Ethiopian people who have selected and cultivated Endod for centuries. Mosimege (2001) highlights that for every IK technologists and practitioners are worried about giving away the deep knowledge that has been gained and refined over many years without anything benefiting them.

According to Zhang (2004: 4) in the United Nations (2004:4-5) patenting IK is faced with challenges due to the following reasons:

- i. herbal products are powdered herbal materials, extracts, tinctures, or fatty oils of herbal materials prepared by steeping or heating herbal materials in alcohol and/or honey, or in other liquids. The production process is usually simple and does not involve any sophisticated know-how or invention novel enough to secure protection under existing patent laws.
- ii. Herbal medicines are crude plant materials, such as leaves, flowers, fruits, seeds, stems, wood, bark, roots, rhizomes or other plant parts, that may be used whole or in fragmented or powdered form. It is, therefore, often not possible to seek existing patent law protection for herbal medicines by claiming the discovery of new chemical entities or development of an inventive step.
- iii. It is extremely difficult, if not impossible, to keep such knowledge secret because disclosure of the composition of a product is a prerequisite for registration of herbal medicines before the product can be sold as a drug
- iv. in most countries, it is very expensive to acquire, exercise, and enforce patent rights, particularly if international protection is required. For traditional practitioners and research institutions, particularly in poorer countries, the cost is prohibitive.



## **Recommendations**

It is important for governments and other stakeholders in Africa to start investing in local IK for home-grown developmental goals. Sawyerr (2004:219) called for policies that facilitate and support the research enterprise including incentives that recognize and reward high-calibre research. The World Bank (1989:28) advised that governments carefully consider the options available to them locally, before taking the decision to sink funds in commercial irrigation systems, which are extremely costly in terms of both investment and operating costs” (World Bank, 1989: 28). Dependence on foreign knowledge and solutions is costly for Africa which is a continent void of money. UNESCO (2000) also calls for the need to strengthen the capacity of local people to develop their own knowledge base and to develop methodologies to promote activities at the interface of scientific disciplines and indigenous knowledge. Governments, scientists, scholars and researchers in Africa need to capacitate local people who include IK practitioners, technologists and custodians to contribute to development by including them in developmental projects. Side-lining these important stakeholders will rob the continent of valuable knowledge and solutions. Ezeanya further articulates that the African research agenda, curriculum and given conceptual frameworks should be continuously re-examined by researchers, teachers and students, with the aim of eschewing all manifestations of neo-colonial underpinnings and emphasizing indigenous ideas and addressing Africa’s peculiar realities and challenges (Ezeanya, 2011). Furthermore, there is therefore a need to develop a clearly articulated research agenda for IK, based on the articulation of desired research priorities and outputs. There is also a need to develop clear knowledge validation frameworks that inform the education system (Domfeh, 2007).

Moreover, there is a need for the decolonisation of knowledge production, sharing and the general paradigm of Africans. Sawyerr (2004:219) highlights that an atmosphere of political or cultural intolerance has a chilling effect on research, and, therefore, on the nurturing of research capacity. There is a need for Africans, regardless of their economic, academic and social standing to learn to appreciate IK. Horak (2005) highlights the need to understand that Indigenous knowledge system (IKS) is different, but equal to Western knowledge systems. IKS may have ancient origins, but is relevant in day-to-day lives of people and continues to evolve, and is highly validated in context of community/local use. Africans have to be encouraged to appreciate their IK and measures put in place to foster IK research and promotion which can yield fruits towards development in the continent. Ngugi wa Thiong’o (1986) warns that African indigenous knowledge should not only be seen as an alternative knowledge but as one domain of knowledge among others. Local Africans understand IK better than anyone else and they know what works and does not work. Thus, Africans who have tried and tested different remedies and prescriptions recommended by their parents, IK practitioners, technologists and custodians can use that knowledge and further develop it to contribute to the development of the continent.

Furthermore, there has to be clauses to protect IK and local communities must decide how IK is used, with the state/technical experts as facilitators, and that local use is prioritised over commercial/scientific use. IK is an inexpensive source for the poor and it is also the social capital of the poor, their main asset to invest in the struggle for survival, to produce food, to provide for shelter or to achieve control of their own lives (World Bank, 2013). Thus, the need to prioritise local use of IK and where the need to turn commercial, there must be a means of benefiting communities which are custodians of such knowledge. Furthermore, Timmermans (2003:751) talks of the importance of establishing links between commercial, conservational

and developmental goals, and to formalize and, thus, reinforce, the (moral) rights of the holder over their knowledge.

There is a need to steer innovation and creativity in Africa and this can be best promoted through encouraging locals to explore and interact with natural resources, plants, herbs and other resources which they are familiar with. From a tender age, African people have access to their IK, plants, herbs and custodians of IK and they don't have to pay fortunes to access such resources and thus can explore these resources and develop products which can go on to make an impact internationally. Kaya and Seleti (2013) highlight that the wealth of knowledge that still exists among the elders and other knowledge holders in African local communities demonstrates the vibrant intellectualism to which African researchers and intellectuals should turn. Ezeanya (2015) is of the view that a country that invests in creating an enabling environment for its human capital to operate at optimum usually receives yields by way of highly innovative products and services. Ezeanya (2015) goes on to highlight that at the foundation of innovation and invention is knowledge, intimate knowledge of the environment within which the end-product will be utilized. Indigenous knowledge forms the basic foundation of knowledge for much of Africa's population south of the Sahara (Ezeanya, 2015). Sawyerr (2004:219) social recognition of achievement and the ready utilization of good ideas provide nonmaterial but powerful incentives to research excellence and innovation.

This study also recommends that investments and funding be availed to promote IK research in Africa. Sawyerr (2004:20) also recommends that there is a need for incentives for private investment in research and research capacity development. Sawyerr (2004:219) highlights the need for the availability and adequacy of the means for undertaking research, funding of research and research institutions and the long-term public support supplemented by private investment, especially in applied research for the sustenance of a research culture and capacities.

The current researchers also recommend the promotion of IK through the educational sector in Africa. Dei (2000) highlights that the academy should facilitate the recognition and validation of the legitimacy of IK as a pedagogic tool. Sawyerr (2004:219) calls for an educational system that encourages and equips people to be curious about nature and society and to develop an interest in the pursuit of knowledge and ideas is an indispensable general condition for the development and sustenance of a research culture. Ezeanya (2015) further highlights that education is the surest and quickest path to ensuring social continuity and bringing about transformation in any society. IK is now firmly accepted by most lead development organizations, including WHO, the United Nations Development Programme (UNDP) even the World Bank. (WHO, 2003). In Africa there is an impressive list of recognized medicinal plants that are based on the local knowledge of the people (Lewis, 2009: 22). IK is making inroads into the health, nutrition, cosmetic and other areas and thus the education sector in Africa has to encourage creativity and harnessing of IK. To Nyamnjoh (2004) there is a need for African academics to scrutinize the current curriculum in order to ensure that the African perspective is reflected.

The importance of documenting IK is to ensure that communities are not left impoverished as a result as the world needs genetic diversity of species, it needs diversity of knowledge systems (Labelle, 1997). There is also a need for information practitioners and other stakeholders in Africa to document IK and also make it accessible to Africans and other people around the world. Among African communities, knowledge of the healing properties of naturally occurring resources abound; diseases such as common cold, fever, sores, diabetes, malaria and

fractured bone have been known to be remedied with knowledge passed on from generation to generation (Baronov, 2008). Such IK needs to be documented and shared with the youth for sustainability (McNeely, 1999). Sithole (2006) also calls for IK documentation through a coordinated mechanism which should be able to inform the different players what the other members are doing and provide a platform for the sharing of best practices and lessons learnt in the different approaches undertaken. IK documentation may be costly and unaffordable to many communities and thus, Sithole (2006) recommends that African communities must deal with the high costs of documentation by establishing partnerships that bring different organizations and institutions with comparative advantages in the various aspects of the documentation. Universities, governments, researchers, the private sector, IK practitioners and other stakeholders can come together in order to document IK. Furthermore, according to Sawyerr (2004:20) also highlights the need for research infrastructure, such as laboratories, equipment, libraries, and an effective system of information storage, retrieval, and utilization; appropriate management systems.

These researchers also call for the drafting of IK policies, legislation, policies and standards which are home-grown and not adapted from other continents whose philosophies, paradigms and systems of knowing differ from the African ones. Sawyerr (2004:219) encourages the implementation of broad social policies and practices that encourage and facilitate the flow of information and reward innovation and inquiry. The United Nations (1992) recommends that a government ministry or department or any other public body must be charged with the drawing up of policy guidelines for IKS. Furthermore, according to Sawyerr (2004:20) there is a need for official policy reinforces the market in insuring that higher education and research receive adequate investment from both private and public sources. These guidelines should specify the tasks to be undertaken, for example, surveying and documentation, and who is to implement the process and who is to monitor the progress (United Nations, 1992). Ezeanya (2015) also calls for the development of the Legislation for the Protection and the Promotion of Indigenous Knowledge.

### **Conclusion**

This study established that African IK was underutilised and somehow neglected in developmental goals and projects. It emerged in this study that governments and the private sector were not investing much into IK as it emerged that there was overreliance on products and knowledge from the west. Furthermore, there was a lack of interest, policies, legislation and standards for incorporating IK into the African development agenda. This study recommended the decolonisation of knowledge production and the general mind set of Africans as IK could offer innovative and home-grown ways of developing the continent.

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