

# The Role of Indigenous Knowledge in Socio-Economic Development

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**Abstract:** *Communities, urban or rural have diverse challenges. Societies are the owners of the challenges that befall them; they are the subject of the challenges and have the solutions for those challenges. Recognition of endogenous management of Indigenous knowledge becomes an enhancing solution to the seemingly mega challenges of community development. Indigenous knowledge is a more secure foundation for sustainable solutions to challenges in developmental issues in Africa. It calls for listening to other voices of participation and engagement. Advanced technology in IK usage and preservation empowers users to improve on pre-existing solutions to a problem, achieve a goal, and most of all improve on the standards of living. IK is a preferred mode used at the local levels by communities as more tacit than explicit. All communities have their own accumulation of knowledge which is easily decoded in IK and expressed easily by use of first language/mother tongue. IK provides a bottom-up approach against the convectional top-down approach. The concept of indigenous knowledge calls for the inclusion of local voices and priorities, and promises empowerment through ownership of the process by harnessing synergized skills from the objects of use.*

**Keywords:** Endogenous, development, harnessing synergized skills, Indigenous knowledge, accumulation of knowledge

## 1. Background

World bank (1998) notes that Indigenous knowledge provides the basis for problem-solving strategies for local communities, especially the poor.

Indigenous knowledge (IK) is the cultural and social experiences that drive a community to adapt certain values, practices and norms to coexist in the environment sustainably. It is a common feature to all societies in the world. It is the indigenous knowledge that makes people generate comparative advantages in social and economic development as certain skills for economic production are present in one community and not in others. Therefore indigenous knowledge grows and sustains itself in the society from one generation to the next and has given rise to interdependency in socio-economic development between nations.

Kamara (2005) observes that in Africa, local communities possess a developed traditional indigenous knowledge systems for environmental management and coping strategies, making them more resilient to environmental change. This observation means that the people knowledge can be integrated into the emerging challenges to sustainable development. Indigenous knowledge is a precious national resource that can facilitate the process of disaster prevention, preparedness and response in cost effective, participatory and sustainable ways. This knowledge had and still has a high degree of acceptability amongst the majority of populations in which it has been preserved. Community development seeks to empower individuals and groups of people by providing them with the skills they need to effect change in their own communities. These skills are often created through the formation of large social groups working

for a common agenda on the springboard of indigenous knowledge.

This paper looks at knowledge management and particularly indigenous knowledge as a catalyst for development. Development is observed to attain sustainability by use of the local community talent and skills. By tapping the local community talent, we improve standards of living because the communities are aware of what best addresses the problems they encounter and the solutions to the same problems.

McMillan, 2001 confirms that IK is phenomenological meaning that it is a lived experience that makes the individuals using it feel that they understand more fully the concept. They identify with it hence take pride. Knowledge is a strategic resource (Freeman, 2001: 27)

## 2. Literature Review

The review of literature covers the trends and studies on indigenous knowledge and at national, regional and international levels. The review therefore makes an informed nexus between indigenous knowledge and socio-economic development.

Gakuru (2006) argues that for a considerable period traditional knowledge has been considered little more than a nostalgic remembrance of varying pasts, being preserved only as superstition folklore. However, he continues to observe that IK is a permanent feature in the society as long as the society is alive. Anderson (2005) observes that:

“it is clear that our laws and customs do not fit ..... The existing legal system cannot properly embrace what it

cannot define and that is what lies at the heart of the problem.”

The use of indigenous knowledge therefore has been seen by many as an alternative way of promoting development in rural communities in many parts of the world.

Briggs (2005) avers that indigenous knowledge is the local knowledge that is unique to a given culture or society. It contrasts with the international knowledge system generated by universities, research institutions and private firms.

Warren (1991) expands this notion by asserting that indigenous knowledge is the basis for local-level decision making in agriculture, health care, food preservation, education, natural resource management and a host of other activities in rural communities. Indigenous knowledge of the Africans remains a gold mine (AERN 2012). The communities need to appreciate that they are the source of crime, the victim of crime and the reservoir of support to the community as it seeks to control crime. Indigenous knowledge may not be sufficient on its own to fight crime but it would certainly be a basis to deter criminals. Crime does not always start from far, instead, it is from within the areas we are familiar with. If an area is not secure, there cannot be any development because the community is in fear. Kenyan security system is spirited to introduce the “nyumba kumi” concept in a manner to reach out to all. The concept, if adopted, is clear system of interdependence in that the communities need to know at least ten houses within its reach and the social fabric is enhanced and people get to know each other.

Although IK is derived from careful observation of the environment in a particular context, it can be widely applied in many scenarios. As Warren (1991: 1) and Ulluwishewa (1993: 12) aptly pointed out, the utility of IK is not confined to the locality in which it evolves, but is useful to scientists and planners alike in designing development programmes

Development is about people and communities and there is no community without human beings. Further in the Kenyan context, Njuri Ncheke of the Meru community envisages to articulate arbitration and solving of common problems including land issues within the Meru community using history as springboard for deliberation. This they have perfected because they have an in-depth understanding of issues ailing their society and more so the history of the community which is guided by their local knowledge. In Kenya again, the Chief Justice was on record advising Kenyans that they can seek alternative judicial services instead of going to court over basic issues like family conflict. Basic issues should be taken to mean issues that can be well mitigated at the grassroots and community levels, because they have an understanding of some springboards on indigenous or genesis of the problem. The rhetoric of indigenous knowledge has been heralded as seemingly offering a way out of the development impasse. In contrast to the past, when traditional knowledge were typically seen as obstacles to development, it is now claimed by some that these are pivotal to discussions on sustainable resource use and balanced development.

Agrawal et al (1995) notes that when something is indigenous, it belongs naturally to a place. Indigenous knowledge often called traditional knowledge, folk wisdom or folk knowledge is local knowledge of any field of human inquiry that does not originate in academic or corporate research institutions but rather is based on local-level accumulated knowledge that is inherited through tradition and culture. Development and growth requires knowledge management of its subjects and Indigenous knowledge would provide this knowledge.

The World Bank is instrumental to the development of IK through community based programs in the African states. The African Department of the World Bank launched the indigenous knowledge for Development program in 1998. Since then it has continued to play a greater role in the development activities of the World Bank. Wolfensohn, President of the World Bank observes that:

*‘Indigenous knowledge is an integral part of the culture and history of a local community; we need to learn from local communities to enrich the development process.’*

It is further argued that uncertainty and top-down development processes brought about the African Renaissance that sought to solve African development challenges using their internal mechanisms instead of blue prints from colonizers. In this regard IK is endogenous since it has to come from within the people. It is an understanding that the challenges are with the people, the subject are the people and therefore the solutions for the challenges are within the people in the locality by making use of the resource available to them. IK therefore integrates the harnessing of the different sociocultural skills that are acquired from the rural universities (skills and knowledge that is acquired informally) within the community. Accumulation of knowledge is the total knowledge resource and the synergized skill that brings solutions to the communities.

### 3. Essentials of Indigenous Knowledge

Chitere (2011) contends that the validation of IK as part of technology cannot be over emphasized. It represents an important component of global knowledge on development issues. Technology for development is the extension of human capability in order to satisfy socio-economic needs or wants. It further denotes that it is the making, modification, usage, and knowledge of tools, machines, techniques, crafts, systems, and methods of organization, in order to solve a problem, improve a pre-existing solution to a problem, achieve a goal, handle an applied input/output relation or perform a specific function.

World Bank (1998) notes that IK is an underutilized resource in the development process and therefore should be incorporated in the development planning processes. Learning from IK, by investigating first what local communities know and have, can improve understanding of local conditions and provide a productive context for activities designed to help the communities

#### **4. Indigenous Knowledge (IK) – Experiences and Challenges**

Bruyere (1986) noted that ‘Indigenous peoples are the base of what I guess could be called the environmental security system. We are the gate-keepers of success or failure to husband our resources. We are still the first to know about changes in the environment, but we are now the last to be asked or consulted.’

In Africa, IK is not a new phenomenon in development since it has been there and it is as old as humanity. Kalu (2010) notes that while the old generations of Africans are conversant with indigenous knowledge, the new generations largely ignore such knowledge. Indigenous knowledge is part of the lives of the rural communities, their livelihood depends almost entirely on specific skills and knowledge essential for their survival. IK accepts that diversity is the basis of creativity and adaptation; therefore, it does not strive to convince others to become the same. Instead, IK proposes autonomy as a general principle.

Sheehan (2011) contends that autonomy generates a more complex, reflexive and adaptive organizational state through individuated and diverse responses than could be achieved through any imposed understanding or central locus of control. This calls for respect in the diversity of the way we think and perceive development in the communities we are in. It can never be coerced and takes place in the natural setting and the design is the active human intersection between social interactions and the habitat. Much could be different in soliciting and dispensing the use of IK but the simple recognition that there could be togetherness in the different IK socialization is encouraging enough to note that development could occur in the wake of disparities.

Exchange of Indigenous knowledge is therefore the ideal outcome of a successful transfer and dissemination. This is essentially a learning process whereby the community where an IK practice originates, the agent who transmits the practice, and the community that adopts and adapts the practice all learn during the process. Indigenous knowledge is used at the local level by communities as the basis for decisions pertaining to food security, human and animal health, education, natural resources management, and other vital activities. IK is a key element of the social capital of the poor and constitutes their main asset in their efforts to gain control of their own lives. The fact that indigenous people also hold a wealth of knowledge and experience that represents a significant resource in the sustainable development of society is slowly dawning

Briggs (2004) in his work brings out strongly the need to ‘listen to other voices’. His concerns are genuine in the sense that the voice of the indigenous person depicted in the indigenous knowledge continues to be threatened and the western knowledge management takes preference. He says that the white writing about native peoples or cultures displaces the native writer and often appropriates the culture instead of proliferating information about it. The difference between appropriation and proliferation is that the first steals and harms; the second helps heal the breaches of knowledge.

Briggs et al (1999), note that there continues to be a suspicion and wariness about the extent to which indigenous knowledge is capable of challenging currently accepted ideas of development by pushing formal science to the margins. Formal science still represents a powerful body of knowledge, and it is still the language of authority and dominance in many development debates.

Pretty (1994) has observed that the trouble with normal science is that it gives credibility to opinion only when it is defined in scientific language, which may be inadequate for describing the complex and changing experiences of farmers and other actors in development. In this regard the IK has the following elements: Capacity building, participation, synergy.

#### **5. Capacity Building**

All people and communities have a certain amount of capacity. No one is without capacity but often we need to develop it. All this is mainly stored in indigenous knowledge. What is important to realize is that the heart of capacity building is people. Healthy communities are made up of healthy people and families. The creation of healthy environments will encourage healthy economies and sustainable development. It takes capacity to do this as well as good leadership, a viable plan, motivation and the support of the community. Basically, it takes capacity to build capacity in the society, and it takes a well-thought-out process to start both capacity building and effective community development. The rural community has capacity which is stored in their day to day lives and interaction with nature which forms part of the endowed knowledge. Their understanding of peoples character and expectations is well archived in the clanship through time.

Capacity is simply the ways and means needed to do what has to be done. It is much broader than simply skills, people and plans. It includes commitment, resources and all that is brought to bear on a process to make it successful. Most often, capacity is referred to as including the following components:

People who are willing to be involved; skills, knowledge and abilities; wellness and community health; ability to identify and access opportunities; motivation and the wherewithal to carry out initiatives; infrastructure, supportive institutions and physical resources; leadership and the structures needed for participation; economic and financial resources; and enabling policies and systems.

Community capacity building is based on the premise that community sustainability can be improved over time. Capacity, or the lack of it, is reflected in the people, economy, environment, culture, attitude and appearance of the community.

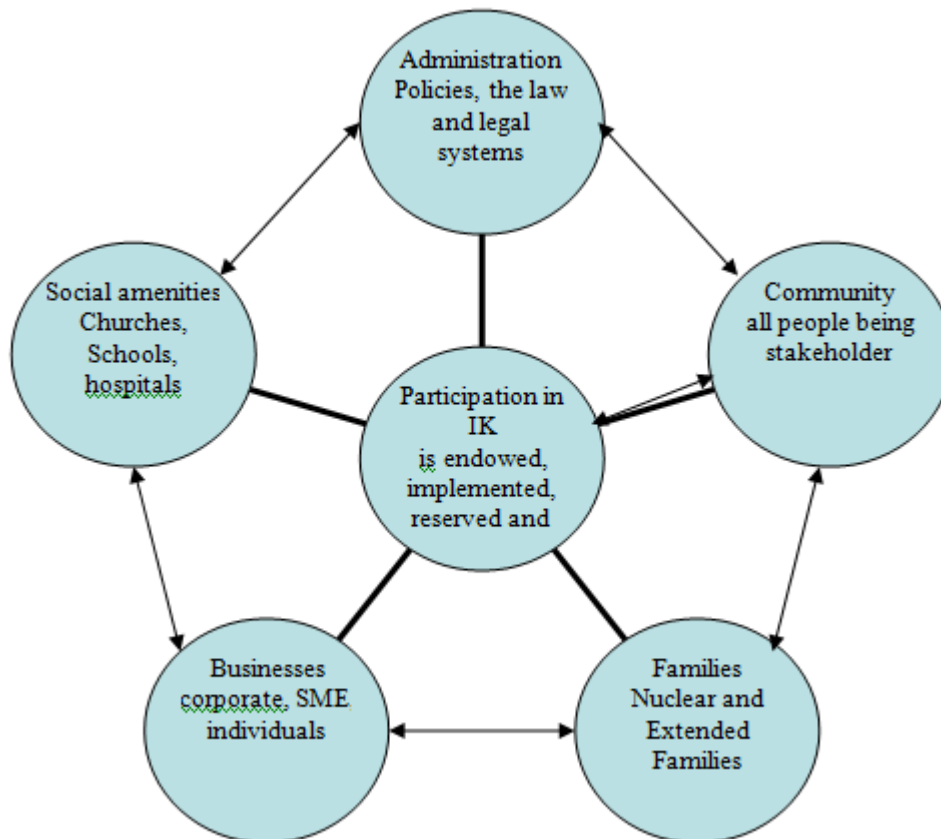
#### **6. Participation**

Chitere (2011) perceives that Kenyan sessional paper no. 10 of 1965 underscores the importance of participation by all Kenyans in the development process. The sessional paper views participation in terms of a mutual social responsibility

by society and its members in the struggle for prosperity. Participation is a bottom up approach of individual engagement where communities have a proud ownership of their development through a total participative approach that is endowed in the traditional knowledge that is within them (endogenous). The individual make-up of a community influences who needs to be involved and what activities will be viewed as legitimate. Ensuring that different cultures and interests are respected and involved (in a meaningful way) is important. For example, respecting cultural traditions and religious holidays, being aware of different styles of communication and ensuring that persons with disabilities can participate fully are all ways that you can build credibility and support.

Bwalya (1985) avers that the convectional wisdom of local participation in development is that, first, it increases the quality and relevance of decisions: secondly, it increases the chances of success and mobilization: lastly, the above in turn tend to motivate a sense of self-reliance and wider efficient use of local resources.

The schema below depicts the inter-linkages in indigenous knowledge actors. Participation means the inclusion of the actors in the environment for effective contributions towards growth and sustainability. None has sufficient ground to stand without the other hence the snowball intertwining. Participation is effective when communities relate with all actors.



**Figure 1.2:** Participants in IK for socio-economic development in communities

## 7. Synergy

Synergy is the interaction of multiple elements in a system to produce an effect different from or greater than the sum of their individual effects. It is the total resource in terms of skills, individual knowledge, indigenous knowledge and an addition of international knowledge. In communities, rural, national or global, indigenous knowledge takes the centre stage. The integration of IK into the development process is essentially a process of exchange of information from one community to another. IK can be developed and stored across globally by:

- 1) **acknowledgement:** That IK is and should be acknowledged as part of cultural values and its methodologies should not be deemed as backward.
- 2) **Recognition:** This involves an assessment of IK's significance and relevance (to solving communal and cross-cultural issues).
- 3) **Reliability:** not being an accidental occurrence (how well does it work?), effectiveness and transferability;
- 4) **Storage** in retrievable repositories: Storage is not limited to text document or electronic format; it could include tapes, films, storytelling, gene banks, etc.
- 5) **Transfer:** This step goes beyond merely conveying the knowledge to the recipient; it also includes the testing of the knowledge in the new environment. It should be symbolic and ethnographic.
- 6) **Dissemination** to a wider community adds the developmental dimension to the exchange of knowledge and could promote a wider and deeper ripple impact of the knowledge transfer.

## 8. Indigenous Knowledge as a Technology

Gorjestani (2000) notes that indigenous knowledge is not confined to indigenous people alone. He advances that all communities have developed their own body of knowledge over generations. With this in mind, even the most developed nations have their cumulative indigenous knowledge that it is only them that can identify and understand. As part of technology for advancement and development, indigenous knowledge has remarkably been identified as a catalyst in the areas of rural universities where the communities own and hold fast that which is dear to them for sustainable development and improved standards of living by: Entrepreneurship to encourage savings, skill, business ideas; leadership which is tapping the potential in people; community participation which is people inclusion and initiatives; gender and inequality which recognizing the capacity in all.

Traditional methods of conveying information could be used in awareness campaign or in the participatory preparation of projects (MARECIK, 1998). Maasai elders illustrate ways of the past and thus values to the young tacitly through story telling. Mother tongue is used in introductory statement either by songs or themes which the community communally answers. The relationship between use of mother tongue and indigenous knowledge information passing is noticed as relevant. It is further noted that adult literacy increases when based on local languages and thus contributes to the cultural renewal of a minority ethnic group and with this approach they realize their worth and take up their position in development trajectories.

According to the above literature, IK is local, in that it is rooted in a particular community and situated within broader cultural traditions; it is a set of experiences generated by people living in those communities. Separating the technical from the non-technical, the rational from the non-rational could be problematic. Therefore, when transferred to other places, there is a potential risk of dislocating IK. It is tacit knowledge and, therefore, not easily modifiable. It is transmitted orally, or through imitation and demonstration. Codifying it may lead to the loss of some of its properties. It is experiential rather than theoretical knowledge. Experience and trial and error, tested in the rigorous laboratory of survival of local communities constantly reinforce IK. It learned through repetition, which is a defining characteristic of tradition even when new knowledge is added. Repetition aids in the retention and reinforcement of IK. This brings about the question on if native or local language is good enough support for indigenous knowledge. But how will it be store and reserved for generations and used by other communities.

Settee, (2008) notes that language is at the heart of first nations' culture and knowledge retention. Indigenous people, especially elders, believe that without language, we have lost culture and the essence of who we are. Kirkness (1998), recommends that communities must establish banks of knowledge to preserve the language.

## 9. Conclusion

This paper concludes by using the tent of Conway (1997) who observes that given time; everything that is old will become new again. In this regard indigenous knowledge is an essential element in the development process and the livelihoods of many local communities. The challenge lies in how to reconcile IK and modern science without substituting each other. No living community is absolutely poor, every community has resources. A resource is any good or service that is relatively scarce and relatively useful. Indigenous knowledge is one aspect of a resource. IK is a social fabric that can positively be used to control issues of ethnicity and especially in Kenya where tribal clashes are known to erupt. IK is used for peace and conflict management in communities. It is inherent in microfinance support. Such knowledge and understanding of the original issues that appear thorny all the time would bring to an end the troubled and perceived enmity in the ethnic groups. When such issues are resolved, then development issues are easily agreed upon and enforceable without one community having to refer to another as an adversary. Indigenous knowledge is developed and adapted continuously to gradually changing environments and passed down from generation to generation and closely interwoven with people's cultural values. 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. Though Kenya is a little advanced in using IK in its development policies (devolution) a few other countries in Africa are similarly engaged such as South Africa, Cameroun, Tanzania, and Ghana. Areas of more scrutiny should be how IK can be transferred from one community to another without having to get a resource person to interpret the meaning as some cardinal facts are lost in the process. Yet, every community has its own IK that cannot be easily put into pen and paper; it is more observable and more participatory.

Challenges of reserving and preserving still exist. However, for as long the generation of mankind exist, and the willpower to cascade the knowledge to the next level generation exists, and an interest of the upcoming generation exists, IK could overcome the storage challenges of the time.

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