

# Knowledge from the periphery: issues, contestations and challenges from within and without

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'Our voices may have started out as a low murmur from the margin but it has now become a distinct and unified cacophony of resistance and distrust' (Louis, 2007)

## *Abstract*

The concepts of the 'core', 'semi-periphery' and 'periphery' emanated from a combination of dependency and postmodernist thoughts, which rejected the notion of a Third World from which local knowledges presumably emanate and develop. That local or indigenous knowledge is perceived as backward and anti-development is no longer new. The illogical arguments or 'enthymemes', the 'rhizomes' and 'minor literatures' and disruptive narratives continue to threaten the hegemony of the Academy. Although the autochthonous and ambivalent nature of local knowledge appears problematic for finding a 'methodological coherence' for these knowledge systems in the knowledge production frontier, it certainly provides an opportunity for the advocacy of a context-specific and holistic approach to addressing development problems. While a historical background on the emergence of dominant knowledge is offered, the exposition stands its ground in affirmation that Western science is as diffuse as local knowledge in terms of real life applicability and relevance – the scenario, which eventually does not make local knowledge inferior, although with its own limitations, too. The analysis goes further to offer a critique on the activities of the insider African academics and researchers who aid and abet the outsiders' development agenda, which are problematic to the valorization of community people's knowledge. Ultimately, in realizing the full potential of local knowledge, models for navigating through the challenges posed by modernity and globalization are suggested.

**Keywords:** Africa, development, globalization, local knowledge, methodology, periphery, science

## *1.0 Introduction*

Amongst others, the concept of the 'core-periphery' which had earlier been developed by the United Nations Economic Commission for Latin America (ECLA) and the amplification of the 'dependency theory' amongst social science scholars ignited some of the debates that led to the emergence of the world-systems analysis (Wallerstein, 2004). Dependency theory posits that natural resources and cheap labor flow from poor countries to rich, industrialized West and through which the latter derives its socio-economic well-being and progress. The handicraft of rich economies, which monopolize the production process, therefore, is to ensure that poor nations remain perpetually subservient to the West in order to maintain the economic and politico-cultural status quo. The notion of the 'periphery' - one of the central themes in this paper - stems from the World-Systems Theory (see Wallerstein, 1974; 2004). Immanuel Wallerstein, a renowned dependency theorist, rejects the idea of the Third World, arguing that the world is a single entity but comprising regions and nation-states, which are

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intricately connected by economic relations. He argues that these economic relations have led to the fragmentation of the world into dynamic units of 'core', 'semi-periphery' and 'periphery'. To remain within the core zone would, therefore, mean the perpetuation of the monopoly of knowledge and, constant technological and industrial advancement. And to remain in the periphery is to maintain the 'primitive' approach to development. Put differently, while the core economies are connoted as the industrial West, the semi-periphery and periphery are categorized as semi and less industrialized economies or regions, respectively. In sum, the degree of sophistication of knowledge and industrialization is at the heart of the whole matter. While Wallerstein's arguments in his theory are understandable and permissible, the geographic distribution of the 'core' in relation to the rest does not suggest that his categorization is entirely plausible – most industrialized and advanced economies are indeed physically situated in the periphery (see Figure 1). But this is not the centrality of my argument in this paper. And for the sake of driving home my point, I will adopt the same concept of 'periphery' to connote the poor economies of the South. But by and large, my major concern borders on the production of knowledge and the politics involved therein (see Kolawole, 2013). Although grossly flawed, the modernists have argued that developing countries or 'backward' societies will experience socio-economic progress if they religiously adopt technological innovations introduced to them by Western nations. As such, knowledges emanating from the periphery or the margin cannot be seen as vital and valid as to advance human socio-economic progress. The inability to discern that societal progress is not as straightforward as we are made to believe is the undoing of that proposition.

This paper begins by shedding light on its analytical perspective and the origin of indigenous knowledge and how the West perceives it [sections 2-3]. It also analyses the emergence of dominant knowledge and shows the similarities and differences between Western science and local knowledge<sup>2</sup> (LK) [sections 4-5]. Section 6 outlines the reasons why LK will remain relevant to international development. In section 7, I provide a critique of the insider academic and outline the roles of institutions in knowledge production. The concluding section provides a road map for valorizing the knowledge from the margin in the development frontiers.

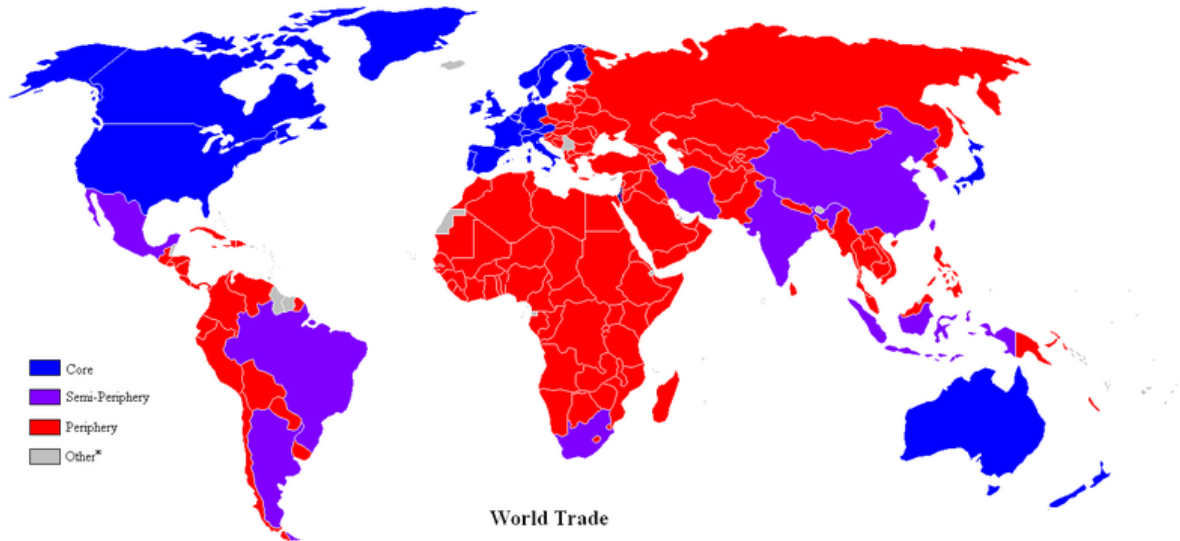
## ***2.0 Analytical perspective***

The analysis of this write-up is based on sociological perspectives in relation to knowledge production both in the Western world and South economies. Critical literature review and personal experiences constitute the basis for the central arguments in this paper. Specifically, the concept of 'periphery' is used to elaborate on the nature and development of LK and how these are relevant to development practice. Thus analysis in this paper is predicated on the second theme of the *Knowledge from the*

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<sup>2</sup> In this paper, local knowledge is used interchangeably with indigenous or endogenous knowledge and it connotes knowledge from the margin or periphery.

*Margin* (KFM) conference – ‘Objectivity at the Margins’. By implication then, the concept of ‘periphery’ has been used in place of the concept of ‘margin’. Semantically both concepts connote the same thing. In sum, the analysis is weaved around the need to recognize the knowledge systems of poor communities in the South, how this body of knowledge or LK fits into the world’s sustainability agenda and how it could be justifiably rewarded.



**Figure 1:** A world map showing the trading status of countries by the late 20th century (Derived from the list in Chase-Dunn *et al.*, 2000; Accessed in Wikipedia)

### 3.0 *The origin of local knowledge*

LK is as old as humans’ existence. Man’s desire to overcome the challenges posed by the vagaries of his environment and the need for survival set the scene for the development of indigenous knowledge. The early man had devised several survival strategies through fruit gathering, game hunting, domestication of wildlife, etc. to meet his immediate needs. In the process, several branches of local knowledge in medicine, veterinary medicine, botany, agriculture, music, architecture, etc. began to emerge. Systematic investigations on LK commenced in the 1900s and interests in the subject increased tremendously in the 1970s. Many reasons ignited keen interests in the subject amongst scholars. These include, amongst many others, the climate change related crises such as the prolonged drought in the Sahel and southern Africa in the 1990s, which was associated with human induced problems such as the use of fossil fuels and the like; the failings of the Green Revolution (GR) (see Osunade, 1996); and the rise of post-modernism in the 1980s and 1990s. Post-modernist scholars such as Michael Foucault, Michael Warren and his team at Iowa State University and Robert Chambers and his research group at the Institute of Development Studies based in the University of Sussex and many others became eminent champions of LK infrastructures in the 1980s. Thus the analysis of LK and managements systems are at a 4-level, which include the knowledge of land, water, plants and animals; development of natural resource management system; social institutions which

regulate access and use of the resources; and the indigenous peoples' world view that shapes how they perceive their environment (see Berkes, 1999 [2008]).

While on the one hand the naturalists are of the opinion that there are 'multiple, constructed realities', the positivists, on the other hand, maintain the viewpoint that 'there is a single reality' (Tashakkori and Teddlie, 2008). The scientists who perceive LK as 'enthymemes' 'subversive texts' and minor literatures (Milovanovic, 1997; Kolawole, 2013), which appear inherently disruptive, reason that the place-based nature of that body of knowledge and its multiple realities thus make its operationalization difficult in every day science. Naturally then, LK constitutes a threat to the hegemony - the dominant knowledge. To silence the subversion is to make it irrelevant in the mainstream in a subtle manner. It is, therefore, not surprising for Louis (2007) to show how feeble but constant protestations from the margins have become the platform for disharmony and distrust between the Hegemony and the subjugated voices.

#### *4.0 The metamorphosis of mainstream knowledge – science*

Mainstream knowledge emerged through the expositions in theology wherein the clergy was held dearly as the conduit through which knowledge was derived. As the society progressed, divine knowledge was no longer seen as the authentic form of knowledge. The rise of philosophy put aside the authority of the church on the basis that any speculative knowledge that cannot be questioned or based on deductive reasoning may not be adjudged as the authentic form of knowledge. Science, however, gained supremacy over the first two sources of knowledge as scholars argued that knowledge derived through objectivity and verifiable, procedural analyses could only be acceptable as a form of true knowledge, provided the person seeking insights observes the rules guiding the process (see Wallerstein, 2007; Kolawole and Johnson, forthcoming). But then, the linear mode of scientific enquiry is in itself problematic; the post-modernists have rejected the idea that there is only one reality but argued that there are multiple realities. They have thus proffered that Grand narrative should be foreclosed and give way to meta-narratives. Lyotard (1984) refers to these meta-narratives as *petits récits* or 'localized' narratives that are location specific. The following section addresses the similarities and dissimilarities between LK and science.

#### *5.0 Differences and similarities between local and Western knowledge*

Some scholars (Kolawole, 2012; Agrawal, 1995; Banuri and Appfel-Marglin, 1993; Dei, 1993; Warren, 1991; Chambers, 1980) have written extensively on the differences and similarities between science and LK. Nonetheless, I will endeavor to highlight a few but pertinent issues on the similarities and dissimilarities of mainstream science and the knowledge from the periphery. Clearly, the similarity between science and LK is that they both engage in a 3-stage process of knowledge production, which includes (1.) observation, (2.) experimentation, and (3.) validation. As argued elsewhere, the major differences in the procedures are in regimentation and documentation. While science is heavily regulated and documented, LK is not. Thus the major weakness of LK is the unsystematic mode of production associated with its production process (see Kolawole, 2012). While experts are of the opinion that LK is based on trial and error, science may also not be absolved of this singular weakness as there are many instances where certain scientific experiments have failed due to trial and error (Kolawole and Johnson, forthcoming).

While positivist science mode of operation is based on a single reality, LK operates on the basis of multiple realities. And while science is Grand-narrative in nature, LK comprises meta-narratives, which are unique to different social milieu. Monica Peters summarized the dissimilarities between science and LK in Table 1 below (Peters, 2010), and to which I have added the last item on the basis of production and use. While on the one hand scientific knowledge could be produced and used far away from where it is produced (*ex situ*), LK on the other hand is autochthonous in nature – it is naturally found where produced. Nonetheless, this is not to imply that LK cannot be adapted elsewhere, particularly in places with similar socio-cultural and ecological conditions. Of paramount interest is the ‘Etic-Emic’ differentiation between the two forms of knowledge. While mainstream science, through the outsider-observer, employs a pre-established categories for organizing and interpreting anthropological data (Etic), LK approach adopts data categories recognized by the people being studied (Emic). Thus conventional science may have been implicated in its penchant for stereotyping and distant labeling of subjects particularly during social field survey investigations. In addition to that, the proposition that science is ‘universally applicable’ may, however, not be universally correct as certain problems (e.g. health issues) defy scientific solutions in some specific contexts. This has often led to recourse to local solutions for local problems, thus making science as diffuse as LK itself.

**Table 1:** Differences between science and local knowledge (Adapted from Peters, 2010)

CONVENTIONAL SCIENCE	LOCAL KNOWLEDGE
- Quantitative, objective and positivist	- Qualitative, subjective and experiential
- Truthful, rational, dependable	- Mythical, irrational
- Focussed on mechanisms and predictability	- Rich in context information
- Precise, time consuming, expensive	- Relatively inexpensive and quick
- If done in optimal conditions, so controlled as to be disassociated from the complexities of reality	- Highly confounded with complexities of the real world
- Universally applicable	- Locally applicable
- Linear	- Cyclical
- Eurocentric, narrow physical scope	- Ethnocentric, spiritual/cultural focused
- Focussed on single/present generation	- Focussed on future generations
- Materialist and individualist	- Reciprocal and multi-dimensional
- Economic growth focus	- Socio-cultural focus
- Mechanical/segmented/reductionist	- Holistic, collective
- Etic	- Emic
- Ex situ	- In situ; autochthonous

### *6.0 Reasons why knowledge from the periphery will remain relevant to development*

The importance of the knowledge from the periphery is implicated in the crucial roles it plays in development practice. Over the years, it has become increasingly difficult for development practitioners to successfully work at the community level without local support. In addressing development issues, particularly those bordering on the environment, both outsider and insider experts rely heavily on LK to enable them achieve any measure of success. Kolawole (2015) has outlined a number of reasons why LK will remain crucial to international development practice in the 21<sup>st</sup> Century and beyond. A few of these reasons will be sufficient in this paper. Some of the pertinent issues include (1.) local preference for endogenous technologies which are environmentally friendly, easy to understand and adapt; (2.) local people's poor financial strength, which naturally predisposes them to relate easily with local innovations, and which they in-turn use in addressing local challenges;

(3.) people's habitus, which explains how societies are deposited into people living within them, makes community people to naturally uphold certain ways of doing things; (4.) globalization, which encourages global integration, supports the idea of import substitution industrialization (ISI) proposed by the structuralists where LK could play a significant role in trades in local textiles, music, artifacts, etc.; (5.) identity preservation, which is enhanced through cultural practices emanating from LK, helps to further entrench endogenous knowledge in the face of modernity; (6.) boundary maintenance, which enables local people to stand out from the rest, is achieved through LK; (7.) complementarities of knowledge, which creates the room for people to maneuver through some peculiar challenges arising within specific locale, and which ordinarily may not have been possible to surmount if a linear approach to problem-solving is adopted; (8.) socialization, which is firmly rooted in people's way of life, is a means through which societal norms and values are perpetuated from one generation to the other; (9.) boundary maintenance, which is a process of preserving the integrity of any social system, is a means through which outsiders are prevented from gaining access to the internal dynamics and machinations of any community of people, and by that means ensure the sustenance of a unique identity for its members; (10.) local peoples' reliance on ecosystem-dependent livelihood systems, which are fundamentally built around indigenous technologies, serves as the motivator for perpetuating LK in rural communities; and (11.) the domineering nature of Western science, which somewhat suggests that the knowledge from the periphery is inadequate, provides the impetus for LK to continue to find its voice and seek relevance in the development process.

Others include compulsive re-orientation and reversal, which enables local people to revert to indigenous strategies when orthodox approaches to problem-solving have failed to resolve knotty problems confronting them (e.g. health issues); government failure to address certain rural problems (such as poverty and insecurity), which ultimately ignites community people's desire to devise own strategies in resolving problems that directly challenge their existence and well-being; and the emergence of complexity studies and cultural studies (Wallerstein, 2007), which question the linear mode of mainstream science, provides the platform for seeking other alternatives for addressing inherently complex societal problems.

By and large, the significant role of LK in addressing global environmental issues such as climate change and problems associated with inorganic agriculture cannot be overstated. Many efforts emphasizing organic farming and or conservation agriculture (in which LK plays prominent roles) are already underway. It is on this basis that the debate in this write-up is partly woven around the sustainability component of the KFM conference theme.

### *7.0 The insider academic and the role of institutions*

Many years of working with academic colleagues in Africa have broadened my horizon about how the elite perceive LK. Given their training background whether at home or abroad, not too many Western trained African academics and researchers avoid exhibiting a measure of hostility towards some of us who have developed interests in LK. To them, those who push for the development of LK are anti-development and archaic in their thinking. Conscious of the need to refrain from any

sweeping generalizations, it is rather fair to say that not all African elite are anti-LK. While a significant number of these academics openly identify with the process, quite a handful of them are secret disciples who will not in the open identify with endogenous knowledge; these are sophisticated individuals who consult local herbalists and witch doctors in the cover of darkness to resolve some daunting problems confronting them at home or workplace (see also Hountondji, 1997). Their dismissive attitudes towards LK infrastructure continue to jeopardize the advancement of LK in development practice. One pertinent example will suffice in this write-up.

A few years ago, a faith-based organization under the auspices of the Catholic Church Rural Development Programme (RUDEP) started to implement some organic agriculture programs in south-western Nigeria. The organization worked with farmers to develop a number of organic-based innovations, which are cheap, locally adaptable and environmentally friendly. Siam-weed (*Chromolaena odorata* sp.) soap solution was amongst other innovations developed and found effective in curing black pod disease of cocoa (Alao, 2008; see also Kolawole, 2013). But surprisingly, one home based agronomist quickly dismissed the efficacy of the innovation by claiming that:

We need scientific research backing or publications to affirm... Siam Soap Solution can replace long tested fungicides and pesticides developed by scientists and notable chemical companies...' (Oduntan, 2008).

Clearly, the above commentary typifies an individual who wittingly or unwittingly denounces endogenous technology and by that means continues to make advocacy for the entrenchment of the activities of multinational companies [like Monsanto and Syngenta] in Africa. Rather than endeavor to find out the veracity of the claim, the agronomist immediately wrote off the local technology on the basis that it had not been tested and proven! The hastiness with which the individual dismissed the possibility for product replacement portends an institutional barrier already erected against any veritable, local alternative at least in the immediate future. This means a lot to an outsider development agent who seeks collaborative effort with an acclaimed knowledgeable insider expert. It is thus a contestation of issues from within and without, and of which internal attritions are highly probable! Linje Manyozo in his reflective writing entitled 'The day development dies', warns that an obituary should immediately be written against a development project the very day insider and outsider experts (who lack in-depth knowledge of the local terrain) begin to prescribe 'strange systems and strategies' which are in dissonance with local aspirations and goals in any development practice (Manyozo, 2010).

Thus the political economy and ecology of knowledge production most certainly would shape institutional framings of knowledge and policy issues relating to the promotion or otherwise of LK in a given social space. How LK is viewed and framed by relevant national institutions *vis à vis* mainstream science will provide a road-map for country-level policy direction on the subject.

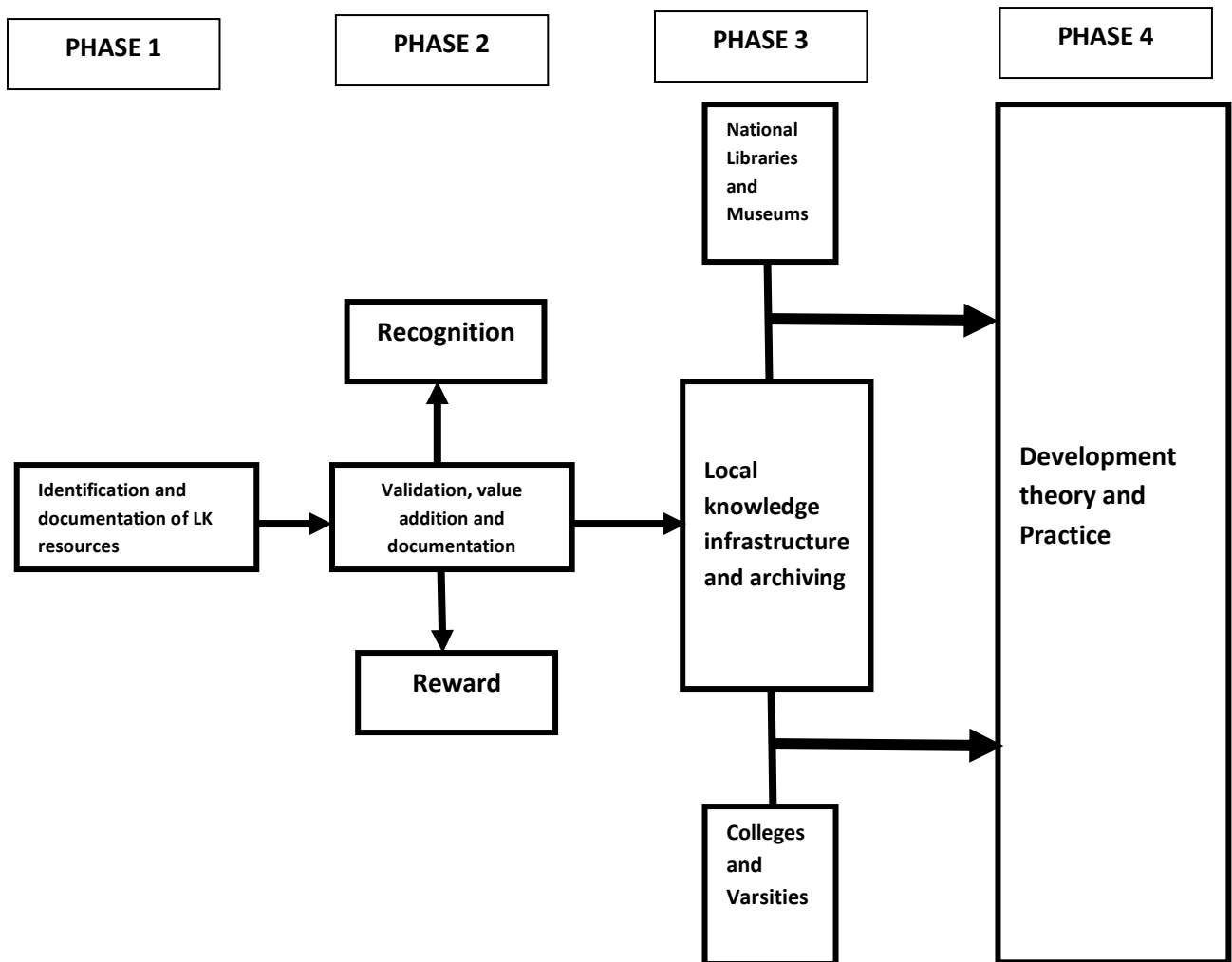
## ***8.0 Way forward – a suggestion***

This paper provided highlights on the origin of indigenous knowledge and how the West perceives it [section 3]. It also analysed the emergence of dominant knowledge and showed the similarities and differences between Western science and LK [sections 4-5]. Section 6 outlined the significance of LK in



development practice. Section 7 provided a critique of the insider academic and outlined the roles of institutions in knowledge production. In this section, I propose a 4-phase model (see Figure 2) for the entrenchment of LK in development theory and practice. While this is not entirely new (see Kolawole, 2014), it is my opinion that a simplification of the process through the delineation into phases the identified key activities will help readers to better understand the process.

The first phase of LK valorization borders on an objective *research engagement* in the subject-matter. This includes identification and documentation of LK resources. Given the level at which we currently are, this phase has reached an advanced stage as many works have been documented in all parts of Africa and the rest of the world in relation to LK resources. Of course, many other research endeavors addressing the subject are still on-going in many parts of the globe. The second phase, which is the *second-level research*, and which also encompasses validation, value additions and further documentation, would eventually lead to recognition and reward for intellectual property rights (IPRs) of those who own the knowledge systems. It is unethical for Western academics and researchers to take knowledge from local people without acknowledging the source of the knowledge. It is also unethical for academics and Western scientists to play the role of the high priest while exhibiting disdain towards community knowledge and voices, particularly in matters that directly affect community people. This is where 'social justice', which forms a part of the conference theme, comes to play. Having said that, while one agrees that LK may not necessarily need validation in the eyes of those who own them, I have deliberately used the concept to draw attention to the assumption that the acceptability of LK amongst the skeptics will be predicated on the ability to convince those who doubt the efficacy of the body of knowledge through development research, which are relevant to drug development and the like. The third phase will include the *development of accessible knowledge infrastructure* through information storage in national libraries and museums, and colleges and universities. The fourth phase would include the *application of LK in the mainstream* as a major component of development theory and practice. Here the operationalization of LK will allow for the development of framework, models or theories which could be translated to useful tools in devising solutions for development problems and readily designed for application in everyday life.



**Figure 2:** Model for mainstreaming LK in development theory and practice (Adapted from Kolawole, 2014)

In summary, many efforts are already underway in developing economies to valorize the knowledge from the periphery. Nonetheless, the perpetuation of stereotypes through stigma and labeling from a distance constitutes a barrier to development in an era where it is increasingly acknowledged that LK is as relevant as Western science. Knowledge from the periphery or margin and the sustainability agenda of the United Nations, and which also forms a core of the KFM conference theme are not in any way mutually exclusive. The importance of LK as outlined in section 6 of this paper is an attestation to the all important role which the knowledge from the margin could play in sustainable development both in the global South and in the West. The challenge of man-made disasters associated with climate change, witnessed in many parts of the world buttresses the fact that business cannot remain as usual. Besides, knowledge fragmentation, which is a recipe for unprofitable chaos needs to be undone to pave the way for defragmented knowledge where both science and LK can both complement each other for the advancement of humanity. It is indeed out of knowledge chaos that academic order will naturally emerge in the 21<sup>st</sup> Century and beyond.

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