

African Knowledge Resource Management and The Making Of African Agro-Ecological Philosophy

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and

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Abstract

Nature has endowed humanity as the supreme force, the most powerful and dominant among all created beings. This power makes the lower beings subservient to humanity though, it is only intended to be beneficent in the advancement of the common good of all created beings. In traditional communities however, there is palpable threat to existential conditions of life on earth due to mismanagement of the created resources. Humanity has not only acquiesced a scientific technology whose laws are far removed from the known system of nature with no self-limiting principle in terms of size, speed and violence to nature and humanity. In today's techno-polis, the machine has replaced human ingenuity and degraded the environment and resources necessary for agrarian practices and harmonious living. This paper argues that African Indigenous Knowledge Resource (AIKR) also known as Indigenous Knowledge System (IKS) or Traditional Ecological Knowledge (TEK) is strategic in salvaging the technologically abused environment. That through indigenous stewardship method (ISM), knowledge resource is harvested by the indigenous peoples of Africa in a painstaking process that spans hundreds of years through direct experience and contact with the environment. The paper concludes that in seeking the whole from the units of the earth resources, strategic management of indigenous knowledge resource in agriculture will surely achieve food security and improved nutrition and economic status of its

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indigenous communities. The paper recommends that African agrarians should focus more on creating long term processes that allow for the implications of different approaches to knowledge in relation to stewardship and management of land resources.

Keywords: African Agrarian Philosophy, Agro-ecology, Knowledge Resource, Environmental ethics, Sustainable Development,

Introduction:

African cultural traditions acknowledge the relevance of science and technology in sustainable agrarianism. For the African therefore, the empirical basis of knowledge has immediate practical results in agriculture, herbal medicine, crime prevention and remedy among others. Scientific studies have begun to recognize the positive role that endogenous knowledge plays in the formulation and implementation of sustainable development policies and projects in developing countries. World Commission on Environment and Development has acknowledged the fact that some traditional lifestyles are threatened with virtual extinction by insensitive development over which the indigenous people have no participation. The commission suggests further that traditional rights should be recognized and given a more decisive voice in formulating policies about resource development in complex rain forest areas, mountain and dry land ecosystems.³ While it is clear that the concept of traditional ecological knowledge does not exclusively belong to indigenous peoples of Africa, its agricultural script has been so altered by foreign policies on agro-ecological resource management thus making research on African indigenous ecological knowledge relevant. The following reasons have been advanced.

- i. The long-term generation and transmission of knowledge of the local ecosystem offers a unique historical perspective into

³. World Commission on Environment and Development - WCED (1987) *Our Common Future*. New York, Oxford University Press. P. 12

indigenous risk adjustment options.

- ii. Modern scientists involved in the management and conservation of areas that may be ecologically fragile or marginal, or that contain genetically important plant or animal biodiversity, may benefit greatly from alternative knowledge.
- iii. That African endogenous knowledge does not separate humans from natural environment; that the world is interconnected and interdependent.

This chapter sets out to distinguish between the abstract tradition of the west (scientific ecology) and historical tradition signposted by traditional systems of knowledge that is encoded in rituals and in cultural practices of everyday life. The object of this study is to show among other things that this traditional Ecological knowledge system possessed by people outside western scientific tradition has implication for African agrarianism. That in Africa, this knowledge system not only contributes to conservation of biodiversity, it promotes agro-ecological resource development, use and management. The chapter acknowledges the relevance of traditional knowledge and management systems and the use of local ecological knowledge in the cultivation of the soil and goes further to interrogate African concept of development from the perspective of agrarianism. It argues further that Africa is yet to appreciate the repertoire of its knowledge systems and heritage resource and the imperative of foregrounding its agrarian development on these knowledge systems. We argue for a recalibration of the agrarian system on the continent to allow for a critical appraisal of African Knowledge Systems and how such systems can be leveraged for development.

Conceptual Labyrinth:

i. African Agrarian Philosophy (AAP)

Agrarianism is a heritage resource that goes back to the ancestors of the living great apes around 7 Million years ago when all humans on earth fed themselves exclusively by hunting wild animals and gathering wild plants. This ancient practice changed when people turned to what is termed food production, domesticating wild animals and plants and eating livestock and crops from their ingenious hands and minds.⁴ The term 'agrarian' that was introduced into vocabulary in the late twentieth century was associated with literature and paintings involving rural or pastoral themes. A broader perspective has been provided by Inge⁵ in an edited compendium of agrarian writings in American literature under five themes namely, i. Religion - Here, farming reminds humanity of its finitude and dependence on God ii. Romance - Technology corrupts; nature redeems iii Moral Ontology- Farming produces a sense of harmony and integration, while modern society is alienating and fragmenting. iv. Politics - Rural autochthony provides the backbone for democracy. v. Society - Rural interdependencies and reciprocities provide a model for healthy community.

It is this historical dynamics that Africans have developed the agrarian culture, hence evolved an agro-ecological practices and food systems. As a philosophical idea, African agrarian philosophy belongs to a political and social philosophy that relates to the ownership and use of land for farming, or to the part of a society or economy that is tied to

⁴. See Diamond J 2017. New Guineans and their Natural World. In keller S.R. and E.O. Wilson (eds). *The Biophilia Hypothesis*. Washinton D.C.Island Press. USA. Pp. 251-271

⁵. Inge, M. T. (Ed.). 1969. *Agrarianism in American literature*. New York: Odyssey Press.

agriculture.⁶ It is a system of ideas relating to the ownership and use of land, especially farmland, or relating to the part of a society or economy that is concerned with agriculture. Thus, agrarian philosophy is a discipline devoted to the systematic critique of the philosophical frameworks (or ethical world views) that are the foundation for decisions regarding agriculture.⁷ This system of ideas regulates agricultural practices and food systems as well as advocates for rights and activities of farmers in urban and rural communities. It should be noted that there are many schools of thought within agrarianism though a recurring feature of agrarians has been a commitment to supporting and protecting the rights of small farmers and poor peasants against the wealthy in society.⁸ In the African parlance, local agrarian practice values rural society as superior to urban society and the independent farmer as superior to the paid worker and stresses the superiority of a simpler rural life as opposed to the complexity of city life. In Africa today, this ancestral tradition has transformed humanity and social conditions making plant and animal domestication much more food and hence much denser human population with development of settled, politically centralized, socially stratified, economically complex, technologically innovative societies⁹ Today therefore, Africans consume food that they produced themselves or that which is produced by other nations of the world.

⁶. [merriam-webster.com](https://www.merriam-webster.com). Retrieved 3 June, 2022. , [collinsdictionary.com](https://www.collinsdictionary.com). Retrieved 3 June, 2022

⁷. Taliaferro C and S. Carpenter. 2010 "Farms" in *Life Science Ethics*. (ed). Gary L. Comstock.

⁸. Inge T. M. 2017. (ed). *Agrarianism in American Literature*, introduction; [paraphrased Archived](#) 2017-07-17 at the [Wayback Machine](#)

⁹. Diamond J 2017. *New Guineans and their Natural World*. P. 88).

ii. African Knowledge Resource (AKR):

African knowledge resource also known as endogenous Knowledge Systems is a highly contested area of knowledge in terms of terminology, location, identification and significance. Thus, AHR is variously referred to as Endogenous Knowledge System (EKS), Local Knowledge Systems (LKS), Traditional Knowledge Systems (TKS) or Traditional Ecological Knowledge (TEKS). Specific definitions also differ depending on the different authorities. This essay shall use endogenous as umbrella references to ways of knowing that are traditional and encapsulated with local beliefs, practices, customs and world views that are helpful in managing environmental, spiritual and socio-economic challenges. Endogenous Knowledge thus encapsulates traditional folk knowledge of plants and animals, belief systems, cultural and historical artifacts that supports human existential conditions.

The International Council of Science defines Traditional Knowledge as cumulative knowledge, know how, practices and representations maintained and developed by people with extended histories of interaction with natural environments ... encompassing languages, naming and classification systems, resource use practices, ritual, spirituality and world views.¹⁰

What this means is that, endogenous Knowledge factors in cultural experiences, epistemologies and empiricisms implicated in ecology, subsistence systems, medical practices, music, oral traditions and technology. This conceptualization includes a set of interactions between economic, ecological, political, and social, environments within a group or groups with a strong identify, drawing existence from local resources through patterned behaviours that are transmitted from

^{10.} International Council for Science 2002 P. 3

generation to generations to cope with change. Houtondji¹¹ has however expanded the concept to entail a corpus of elaborate knowledge in oral cultures. He rejects attempts to qualify AEKS with 'traditional' and 'indigenous' in favour of endogenous which he argues is more dynamic and less derogatory. It is thus safe to argue here that, the concept of endogenous knowledge encodes the philosophical foundations that undergird physical and spiritual development in the different cultures on the continent¹²

Such knowledge systems are created, decoded and protected through components like language, heritage resource, folklore, cultural practices and cultural resource use and are distinguishable from western knowledge systems in five ways namely,

- a) It is transmitted through language and is also collectively owned. This distinguishes it from Western ways of knowing where collation and transmission is through writing. Western Knowledge Systems are also 'personal' commodities that are protected for personal and corporate gain.
- b) It has a characteristic attachment to particular places as opposed to the 'universality' of science. As multiple knowledge systems, they can best be understood within their cultural context.
- c) Compared to Western ways of knowing, African Knowledge systems are fore grounded on a holistic worldview where knowledge intertwines different facets of the cosmos to interconnect living things, the dead and the landscape through obligations and responsibilities.

^{11.} Details of on this concept can be found in Houtondji P. (ed) 1977. *Endogenous Knowledge: Research Trails*, Dakar, Senegal, CODESRIA Book Series..

^{12.} Gundu Z.A 2010 Endogenous Knowledge Systems: The Challenge of Salvaging a Strategic Heritage Resource in Nigeria. In *Or- Che Uma: African Journal of Existential Philosophy*, Vol. 1(2) pp 115-126.

- d) It also uses oral traditions and demonstration for preservation instead of documentation.¹³
- e) It also has an inward focus on local conditions around health, security, environment, economy, survival and religion.

It is thus safe to state here that, endogenous knowledge is a philosophical exploration aimed at a salutary initiative in the quest for achieving the much needed epistemic autonomy in all spheres of traditional African community. In essence, African endogenous knowledge systems are apparently the building blocks of human development. This variety of knowledge is acquired by the indigenous peoples of Africa over hundreds of years through direct experience and contact with the environment by means of indigenous stewardship method (ISM). According to Kyle Powys Whyte, this form of knowledge resource is availed to the indigenous peoples through the physical, spiritual, mental, emotional, and intuitive relationship of indigenous peoples with all aspects and elements of their environment.¹⁴

iii. Sustainable Development:

As a concept, development is often times misunderstood by even the most sophisticated minds. It is most commonly conceived as a process of growing larger, fuller, more mature or becoming organized; thereby getting better results through better methods. It conceptual understanding includes economic growth, industrialization, progress of technology and Gross National Product (GNP) or Gross Domestic

^{13.} Gorjestani N 2004. Indigenous Knowledge: The way forward in *Local Pathways to Global Development* P p 45 - 59 .
[URL:www.http://www.worldbank.org/afr/ik/ikcomplete](http://www.worldbank.org/afr/ik/ikcomplete)

^{14.} Details can be sourced from Kyle Powys Whyte. 2013. "On the role of traditional ecological knowledge as a collaborative concept: a philosophical study". *Whyte Ecological Processes*, a Springer Open Journal 2013, 2:7
<http://www.ecologicalprocesses.com/content/2/1/7> accessed on 15th June, 2022

Product (GDP). Evandro Agazzi thus defines development as “a set of interconnected changes, which are goal-oriented and produce a certain global result that is positive”. He states,

...when a process is originated or promoted by man, a consideration of the intended goal becomes entirely obvious, and in this case it seems that with a positive connotation only if a process promoted is expected to lead to “good” results¹⁵

It follows, from the above, that, “development” as a concept contains an implicit teleological flavour. As a set of interconnected changes which are goal-oriented, and which produce a certain result, which is good, “development” is said to have a value-side added to its general idea. It refers to a harmonious growth of a multi-dimensional complex structure, which realize an intrinsic dynamism, a plan, a kind of ought to be. Understandably, every development has some structure of growth but not every structure of growth is development. This means that we must be conscious of the different significations that the growth of each one of the numbers of values under considerations reveals.

It is very clear that the concept of development includes purpose and meaning in life, which means the possibility of displaying man's potentialities at the different levels of self-realization. It means fellow-feeding and respect for other human beings within the totality of their beings. This entails a progressive economic and social engineering of human society through maintaining the security of livelihood for all peoples and by enabling them to meet their most urgent needs, together with a quality of life in accordance with their dignity and well-being,

^{15.} Agazzi, E. (1993) “Philosophical Reflections on the Concept of Development” in Kucuridi, I (ed): *Ideas Underlying World Problems* Vol.1. Ankara Moloksan Co. Ltd. P. 31.

without compromising the ability of future generations to do likewise¹⁶ In relation to agro-ecology development relates to the wise management of land resources with the intent at enriching humanity and enhancing sustainable human well-being for the greater good of humanity. It suffices to say here that “development” is all about the human person in a given social milieu; of his rights, his essential desires; how much of them have been satisfied, of his entire quality of life, his entire security of livelihood etc. It is all about humanism, a concept which in itself needs clarification.

African Knowledge System

In Africa, indigenous knowledge system is expressed in a variety of ways. For many, it simply referred to as Indigenous Ecological Knowledge (IEK). Here referred, it connotes the knowledge base acquired experientially by the indigenous peoples over many hundreds of years through direct contact with the environment. It includes intimate and detailed knowledge of plants, animals, and natural phenomena, the development and use of appropriate technologies for hunting, fishing, trapping, agriculture, and forestry, and a holistic knowledge. It is knowledge of the totality of the indigenous world view which parallels the scientific discipline of ecology inclusive of knowledge of indigenous soil taxonomies, indigenous knowledge for potential use of local plants and forest products, and animal behavior, hunting skills, important tree species for agro-forestry, firewood, integrated pest management, the control of soil erosion and soil fertility, and fodder management. This agro-ecological knowledge also includes indigenous practices such as terracing, contour bonding, fallowing, organic fertilizer application, crop-rotation and multi-cropping as well as indigenous soil and water conservation and anti-desertification practices.

¹⁶. Sands, P. (ed) 1993. *Greening International Law*; London, Earthscan Publications Ltd. P. 102

In Nigeria for instance, Tiv farmers played an important role as agents of social and economic change through the dissemination of improved technology and techniques of food production. Varvar compliments this point when he says that Tiv migrants were agents of change and innovation in the traditional system of agriculture and that new techniques and innovations were evolved to cope with the agricultural realities of the areas intent at good land management.¹⁷ While not engaging in the unending debate about what constitute traditional as opposed to the western, indigenous ecological knowledge can very well be understood to be a cumulative body of knowledge and beliefs, handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment.

For the Tiv therefore, God's benevolence at creation is intent at providing food security for humanity. What this means is that humanity is under obligation to work towards a greater production and wealth acquisition. It can thus be taken **to be** an attribute of societies with historical continuity in resource use practices. Thus, agro-ecological epistemology acknowledges that land, inclusive of the soil, water, air and other resources is one of the most fundamental resources that support the essence and existence of the human person.

The development of endogenous knowledge, or the change in the application of acquired ecological knowledge, is predicated upon conscious efforts by both individuals and the local community. Although

¹⁷. Varvar, Toryina Ayati 2011. "Discrimination and Innovations in Indigenous Yam Production Technology and Techniques in Tivland: The Role of Migrant Farmers". In Alloy S. Ihuah and Zacharys Anger Gundu. *Archeology, History and Environment in the Middle-Benue Valley Nigeria: Essays in Honour of Bassey Wai Andah*, Saarbrücken. VDM Verlag Dr. Müller GmbH & co. KG. Pp.129-143

most innovations in the application of indigenous knowledge are typically regarded with caution by traditional societies in Africa, under special circumstances they may be readily accepted by the entire community. Such circumstances may occur when local ecological and climatic conditions have dramatically changed, or have become stressed to the point of threatening collective and individual survival, Famine caused by drought, deforestation, desertification or topsoil erosion, and declining productivity are some circumstances which may encourage or necessitate the acceptance of innovation.

In some of Africa's most ecologically fragile and marginalized regions, knowledge of the local ecosystem simply means survival. As so much is at stake in changing traditional natural resource management practices, any proposed change is usually based on an informal evaluation and consultation process among key community members (usually a peer group involving elders). By sharing and comparing knowledge of key indicators that describe ecological responses to change or the prediction of environmental trends, the community can weigh the long and short-term costs and benefits of change related to any new innovation or application of local ecological Management systems. It should be noted that this is “the means and methods used by Blacksmiths in Burkina Faso to detect or identify underground veins and determine the quality of the Ore”. According to Adande, the methods includes, using long iron bar, examining certain visual, tactile or taste clues and using certain plants. This is basically founded on the indigenous belief that, *Ore* were like tremendous snakes moving about underground and that a person needed special skills to locate them.¹⁸

¹⁸. Adande, A.B .A. 1997. “Traditional Iron Metallurgy in West Africa” in Houtonji P, (ed) *Endogenous Knowledge: Research Trails*, Dakar, Senegal, CODESRIA. p. 79

In his *Traditional Ecological Knowledge in Perspective*,¹⁹ Fikret Berkes records the practical significance of indigenous ecological knowledge. According to him, the preservation of Indigenous Ecological Knowledge (IEK) is important for social and cultural reasons. IEK is a tangible aspect of a way of life that may be considered valuable. For the rest of the world, there are also tangible and practical reasons why IEK is so important, quite apart from the ethical imperative of preserving cultural diversity. This has been the set mission of the **International Union for Conservation of Nature**. (IUCN); “to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable”²⁰ The union's programme on Traditional Knowledge for Conservation chronicles a wide range of imperatives that is African for our consideration as follows:²¹

Traditional knowledge for new biological and ecological insights: New scientific knowledge can be derived from perceptive investigations of African environmental knowledge systems, as in the case of life cycles of tropical reef fish²²

^{19.} See Berkes, Fikret. 2018. *Sacred Ecology: Traditional Ecological Knowledge and Resource Management*. London: Routledge.

^{20.} *IUCN List of Threatened Animals* Prepared by The IUCN Conservation Monitoring Centre, Cambridge U.K. International Union for Conservation of Nature and Natural Resources 1986 <https://www.iucn.org>, accessed on 12th July, 2022

^{21.} It should be noted that, in and through these local knowledge, Africans have been capacitated and enhanced to appreciate their cultures and life ways in which such knowledge system can advance their beingness and so, used as a tool for qualitative social changes in local communities. For further elucidation, read *IUCN List of Threatened Animals* Prepared by The IUCN Conservation Monitoring Centre, Cambridge U.K. International Union for Conservation of Nature and Natural Resources 1986 <https://www.iucn.org>, accessed on 12th July, 2022

^{22.} See details in Johannes R.E. 1981. *Working with Fishermen to Improve Coastal Tropical Fisheries and Resource Management*. Bulletin of Marine Science 31:673–680.

Traditional knowledge for resource management: Much traditional knowledge is relevant for contemporary natural resource management, in such areas as wetlands. "Rules of thumb" developed by traditional African resource managers and enforced by social and cultural means, are in many ways as good as Western scientific prescriptions²³

Traditional knowledge for protected areas and for conservation education: Protected areas may be set up so as to allow resident communities to continue their traditional lifestyles, with the benefits of conservation accruing to them especially where the local community jointly manages such a protected area, the use of traditional knowledge for conservation education is likely to be very effective.

Traditional knowledge for development planning: The use of traditional knowledge may benefit development agencies in providing more realistic evaluations of environment and natural production systems. Involvement of the local people in the planning process improves the chance of success of development.²⁴

Traditional Knowledge for Environmental Assessment: People who are dependent on local resources for their livelihood are often able to assess the true costs and benefits of development better than any evaluator coming from the outside. Their time-tested, in-depth knowledge of the

^{23.} Gadgil, M., F. Berkes, and C. Folke. 1993. *Indigenous knowledge for biodiversity conservation*. *Ambio* 22: Pp.151–156.

^{24.} For details, read: Warren D.M and J. Pinkston 1998. "Indigenous African Resource Management of Tropical Rain Forest Ecosystem: A Case Study of the Yoruba of Ara, Nigeria". P. 158-189. in F. Berkes and C. Folke, (eds). *Linking Social and Ecological Systems Management Practices and social Mechanisms for Building Resilience*. Cambridge University Press. Cambridge, UK. ; and Warren DM, Slikkerveer L J, Brokensha D (1995) *The Cultural Dimension of Development: Indigenous Knowledge Systems*. Intermediate Technology Publications, London

local area is, in any case, an essential part of any impact assessment. These traditional forms of knowledge provide insight into the life of the community. Moreover, ethno-science as made available through indigenous knowledge has paved the way for the acceptability of the validity of traditional knowledge in a variety of fields including ecology. In Africa, the feasibility of applying Indigenous Ecological Knowledge to contemporary resource management problems was gradually recognized and used in agricultural practices in traditional rural areas. This has been the story of **African Agrarian philosophy** that is understood as agriculture and food systems that is built on morality, creativity, and innovation, and which, unequivocally, identifies with the needs and aspirations of Africans. The World Commission on Environment and Development in its document *Our Common Future* thus,

Tribal and indigenous peoples"... lifestyles can offer modern societies many lessons in the management of resources in complex forest, mountain and dry land ecosystem. ... These communities are the repositories of vast accumulations of traditional knowledge and experience that link humanity with its ancient origins. Their disappearance is a loss for the larger society, which could learn a great deal from their traditional skills in sustainably managing very complex ecological systems²⁵

The suggestion here is that the concept of TEK is a collaborative concept which serves to invite diverse populations to continually learn from one another about how each approaches the very question of "knowledge" in the first place, and how these different approaches can work together to better steward and manage the environment and natural resources. Here TEK is made relevant and acceptable to the extent that it plays the role of

²⁵. World Commission on Environment and Development (WCED). 1987. *Our Common Future*. New York, Oxford University Press. pp. 12; 114-115.

bringing different people working for different institutions closer to a degree of mutual respect for one another's sources of knowledge.²⁶

Indigenous Knowledge among the Coast Sami on fishing, hunting and gathering is here acknowledged. The economic adaptation of the Coast Sami is based on a wide range of ecological knowledge. Firstly, definitions of which components of nature are "resources" are based on such knowledge. Secondly, there is knowledge about how these resources can be utilized, and thirdly, there is knowledge about ecosystem functions, relations between species and sustainability of different resources. The moral element found in norms and unwritten rules about resource use which are more readily availed through indigenous wisdom passed from generation to generation²⁷ explores the importance of this local and indigenous knowledge as a complement to scientific ecology, and its cultural and political significance for indigenous groups around the world, and asks how we can learn from this knowledge and ways of knowing.

African Endogenous Knowledge and Modern Scientific Knowledge

African endogenous knowledge and modern scientific knowledge are similar and dissimilar. Both are based on an accumulation of observations though, endogenous knowledge differs from western science in some fundamental ways. Articulating the distinction between these two traditions of thought, Claude Levi-Straus posits that, "these two ways of knowing are two parallel modes of acquiring knowledge about the universe; the two sciences were fundamentally distinct in that

^{26.} Kyle Powys Whyte 2018. On the role of traditional ecological knowledge as a collaborative concept: a philosophical study Whyte Ecological Processes . <http://www.ecologicalprocesses.com/content/2/1/7>

^{27.} Read: Berkes, F. (2018). Sacred Ecology. New York, NY: Routledge for deeper understanding of the issues in discourse.

“the physical world is approached from opposite ends in the two cases: one is supremely concrete, the other supremely abstract”²⁸ In a similar vein, the philosopher Paul Feyerabend²⁹ distinguished between the two traditions of thought by stating that “abstract traditions (to which scientific ecology belongs) and the historical traditions, which include western science, knowledge that often becomes encoded in rituals and in the cultural practices of everyday life”. Other scholars like Fikret Berkes, Johan Colding, and Carl Folke³⁰ have however cautioned against overdramatizing the difference between Western science and traditional knowledge and questioned if the dichotomy is real, it is not in doubt that there are fundamental differences between the two knowledge paradigms. In Africa, the method of acquisition of traditional knowledge is ethnocentrically based. Such is why African Knowledge paradigms are characterized by an old African proverb which states "when a knowledgeable old person dies, a whole library disappears." As practitioners, guardians and educators of indigenous knowledge, the death of key elders (along with the current disinterest of youth to learn traditional ways and languages) can severely limit and threaten existing sustainable livelihoods. Unlike the documented scientific system, much of the remaining traditional ecological knowledge in Africa exists only in oral form, passed on from knowledgeable individuals through shared practice and story-telling.

^{28.} Claude Levi-Straus, C. 1962. *The Savage Mind*. University of Chicago Press, Chicago, Illinois. USA. P. 269.

^{29.} For further elucidations, read: Feyerabend, P. 1987. *Farewell to Reason*. Verso, London, UK.

^{30.} For elaborate discourse, read Fikret Berkes, Johnan Colding, Carl Flke 2000. “Rediscovery of Traditional Ecological Knowledge as Adaptive Management”. *Ecological Applications*, 10 (5) The Ecological Society of America, pp. 1251-1262; Agrawal A. 1995 *Indigenous and Scientific Knowledge: Some Critical Comments*. *Indigenos Knowledge and DevelomentMonitor* 3(3) 3-6.

Endogenous knowledge systems were altered and disrupted in Africa during the colonial period. This disruption is currently perpetuated by the inequitable north-south political and economic system, where endogenous knowledge systems are often ignored, under-valued or replaced by colonial, state practices. An important question facing development organizations that are interested in learning from indigenous knowledge is how to evaluate this alternative body of knowledge. Despite the inherent differences between traditional and scientific knowledge systems, innovative mechanisms are being sought by scientists such as anthropologists and development planners, to integrate both systems effectively in order to facilitate sustainable natural resource management and planning. To achieve this, it is necessary to document, and consequently gain credibility and respect for the existing body of indigenous knowledge for the four agro-ecological regions in Africa namely, humid, equatorial/coastal lowlands and sub-humid.

An understanding of African endogenous knowledge systems within the cultural framework can help a development planner to understand more fully the dynamics of the local ecosystem. This approach can help establish a more flexible atmosphere through joint cooperation between the development planner and the affected indigenous community. For example, indigenous ecological knowledge may be utilized to suggest project site alternatives or mitigating measures which could help avoid or reduce inadvertent long and short-term damage to the ecosystem and traditional culture. As well, indigenous management practices and appropriate technology innovations that are implemented in partnership with development organizations and indigenous societies can also be adapted to help solve ecological problems faced by other societies in similar agro-ecosystems. It is pertinent to argue from hindsight that the utilization of local indigenous knowledge helps in protecting and

sustainably utilizing the natural resource management strategies in the maintenance of biological diversity, biological and crop pest control strategies, recycling and fixation of soil nutrients, strategies to conserve soil and water.

A Maze of Nigerian Agrarian Practices

Africans are indigenous farmers with Yams, (*discoreaspp*), cassava, millet (*penisetumspp*), and guinea corn (*sorghum spp*) as their main crops. The Tiv of Nigeria for example have one word for Farms and produce (*Yiagh*) to represent their ideas of wellbeing, economy and work. In this word is found the meaning of subsistence in its broadest sense; food in the field, in the granary, in the pot, and in the belly; the farms that produce the food; the work that is required to plant, tend, and harvest; and the whole range of activities that centre around physical nourishment and comfort³¹ For many Africans, cultivation of the soil is not only an equivalent of sustainable living.

It is the only how that we get our food and the link that creates harmony between humanity and nature. Farming occupation offers Africans total independence and self-sufficiency as opposed to the busy technological urban life and capitalism that destroys inter-dependence and dignity of the human person. Furthermore, the technological urban life fosters vice and weakens the social system. This explains why agrarian practice rests on solid radar in African communities. Besides, it brings order and a sense of identity, historical and religious tradition, a feeling of belonging to a concrete family, place, and clan, which are psychologically and culturally beneficial. This instantiates harmony within his/her life and in turn, checks the encroachments of a fragmented alienated modern

^{31.} Laura and Paul Bohannan. 1962. *The Tiv of Ceentral Nigeria, Ethnographic Survey of Africa, West Africa Part VIII*, Daryll Forde (ed). London: Stone and Cox ltd. P. 39

society. This is the practice that has been lived by the African for centuries.

In Nigeria, farming is more of a way of life. Cultivation of the soil and other aspects of agrarian practices are common in Nigeria though, the Middle-Belt territory as a whole is the most arable agricultural block. Its ambient climate is suitable to virtually every subsistence or commercial/export crop that can be cultivated in Nigeria. Bala Takaya authoritatively reports that,

the region is a natural home to ... all grains (rice, maize, sorghum, millet and even wheat and barley); all legumes (like all varieties of beans, groundnuts, peas, bambara, etc); all fruit and tree crops (e.g everything citrus, mango, apple, pineapple, coffee, cocoa, tea, etc); all root crops (e.g yams, cassava, cocoyam ... vegetable (e.g tomatoes, water melons, cabbages and even exotic temperate veggies like broccoli, cauliflower, fennel, sage, basil, mint, etc) and all livestock grazing ... (cattle, goats, sheep, piggery ... all forms of poultry, or even rabbitery, snails and grass-cutters). Above all, the territory is amenable to year-round crop cultivation by both rain-fed and *fadama* irrigated farming.³²

It is thus safe to argue here that, African agrarian practice connects the practitioner with the community and nature. It stimulates a positive spiritual good that offers the virtues of honour, self-reliance, courage, moral integrity, and hospitality in the practitioners. It is sufficient to state

^{32.} Takaya J. Bala. 2017. "Pastoralists and Farmers Conflicts in Central Nigeria: Towards a Holistic Analysis of Causal Factors". In *Herders and Farmers Conflict in Central Nigeria: Learning from the Past*. Makurdi, Centre for Research Management, Benue State University, Makurdi. P. 4-5

here that the professional agro-ecological practice enhances harmony and sustainability in the eco-system. The Tiv agronomic practices namely, soil tillage, slash and burn, fertilization, irrigation or seed saving) which change from year to year in response to both natural variations and the social environment in which they are embedded starts with making mounds (*avom*). The mounds are made by the men with heavy hoe (*Ikyar/gbar*) and covered with dried or fresh grass/leaves left on the field after clearing. The purpose of this according to Bohannan,³³ “is both to prevent erosion and crumbling of the mounds and to afford from the sun for the sprouting yam during the first few days it is above the surface”. The fallow system practiced by the Tiv is another agro-ecological practice that not only strengthens the knowledge and scholarly networks in African agriculture, it is an enabler for multiple pathways that creates new knowledge and foresight capabilities of the indigenous farming population. This point has been well captured by Uchendu for whom agriculture has been described as *staff of life* for the Igbo. Like other African tribes, land for the Igbo “is an important factor in the construction of their social identity, the organization of religious life, and the production and reproduction of culture”.³⁴

The Yoruba of the south west Nigeria likewise treasure land as valuable and sacred. This explains why they derive definition and meaning of his life from land as a resource that sustains his entire being. Apart from being a sustainer, land is a community that houses not only the living but the dead and other beings. Indigenous beliefs/philosophical assumptions such as '*adiye to ba yagbe si isaasun, iboji re lo baje*' (a foul that defecates

^{33.} Bohannan, P. 1969. Tiv and Settlement, Ibadan. The University of Ibadan Press, p.17

^{34.} Uchendu V. 1965. The Igbo of Southern Nigeria. New York: Holt. Rinehart, and Wilson,, p. 30)

inside a pot only spoils its burial place)”³⁵ reminds the Yoruba of the connection between land and humanity, and the need to treat land with care and love when cultivating it. This understanding helps him in achieving a state of harmony between him and land.

Traditional method of farming in Yorubaland is based on the land ownership system of inheritance. Here, ownership and control, like Yemi Oke rightly notes, is “by an individual or family, and this could be established by planting permanent crops like cocoa and other cash crops.”³⁶ There are different traditional sustainable ways of farming in Yoruba communities. For example, “traditional knowledge such as mixing seeds with herbs from certain leaves before they are planted” is applied. “In other communities, trees are planted to shield the crops or surround farms with cassava or other plants containing cyanides to ward-off pests.”³⁷

The point of attraction here is that, traditional knowledge is in use in this agro-ecological friendly practice. As it were, this local knowledge prioritises yam farming after the fallow is broken, to starts the rotation cycle followed with millet and guinea corn and other farm products in a two to three year cropping season. The local knowledge system also capacitates the African farmers to know when a piece of fallow land is ready for cultivation by the type of grass which it produces. One tradition holds that after a piece of land has been cropped, the grass which it grows is predominantly sword grass (*ihila-imperatacylindrica*). According to an authority on Tiv knowledge system, species of grass called *agom* by the Tiv begins to replace it for the next few years, again clumps get larger and heavier until they are about a foot in diameter at the base and the

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sword grass is replaced with another species of grass *apel* grass- this is an indication that the fallow is ready to be farmed again. In the exact words of Bohannan, “trees and earth-worms are used as indicators for rich soil large undergrowth trees and large size grass chumps, with plenty earth-worm moulds, mark fallow which is ready for cultivation”.³⁸ We may say then that, multiple management of traditional farming practice has thrown up a number of new agro-ecological adaptations of new knowledge that have been generated, accumulated and transmitted to the community. Nyityo has availed us one of such farming practice in Tivland that,

Agriculture in *Ikyumbur* is closely linked up with the Tiv concept of a clearly defined land area that surrounds or adjoins the residence of a farmer. Provision is made here largely for grain crops such as maize and millet. In some cases yams Tobacco and ginger are also planted on this plot which is commonly refers to as *akongu* or homestead field³⁹

Here understood, ownership and use of land for farming not only defines the African rural farmer, it shores his commitment to his community and traditional values. Besides all these, farming for the African superintends the urban society and that their independent farming, simple rural life is not only opposed to the complexity of city life, it is superior to the paid worker. For the African therefore, farming as a way of life is a profession that shapes the ideal social values of the distressed world today. This is captured in *Ala*, the most important deity in Igbo cultural life, concept of Earth Goddess, the spirit that increases the fertility of man and the

^{38.} Bohannan P 1969. *Tiv Farm and Settlement*. Ibadan The Ibadan University Press. p. 19

^{39.} Nyito S. G. 2011. “A Preliminary Ethno-Archaeological Study of Agricultural Practices in Ikyumbur Area of Tivland” in: Alloy S. Ihuah and Zacharys Anger Gundu. (ed) *Archeology, History and Environment in the Middle-Benue Valley Nigeria: Essays in Honour of Bassey Wai Andah*, Saarbrücken. VDM Verlag Dr. Müller GmbH& co. KG. P. 99

productivity of the land, and fecundity; the primordial mother. Among the Tiv of Nigeria, fertility is preserved the principle of *Tor-Ambi-Ikpa* - King of Fertility. This principle symbolizes authority, provider, self-reliance and abundance etc. In Tiv social context, this symbolism embodies community, its wellbeing, its ordered existence as well as strengthening of all vital relations that bind the community under the principle of self-reliance (*Ya-Kwagh Ma-Kwagh Mem-Bem*). Thus, fertility of the land authorized by the king facilitates the manifesting spirit of community already in the individual to work hard and reap the rich quality and quantity of the cultivated land.

Amonf the Yoruba of Nigeria-West Africa, an indigenous spatial organization of agriculture is practiced. This involved two forms of farming practice namely, the home farm, known as '*Oko Etile*' and the far-away farm, known as '*Oko-Egan*'. According to The Rev. Samuel Johnson, "when engaged in the nearer one, they work from 6 or 7 am to 5pm, with intervals for meals, and then return home; but at the distant farm, they invariably remain there for weeks and months before returning home"⁴⁰ Another Yoruba author concurs similarly that, "the nearby farms were often located either within the town walls or just outside the town walls. Cultivation on these nearby farms involved mixed cropping patterns using the rotational bush fallow"⁴¹ to grow yam, maize, and cassava. The workforce was usually the farmer and his family members who worked from all day.

The Evolution of African Agrarian Philosophy

It is the claimed conviction of Aristotle that virtue requires a certain level of wealth that reflects a version of agrarian values that stresses the

^{40.} Johnson, 1921:118

^{41.} Ojo, G. J. A. (1970) Some Observations on Journey to Agricultural Work in Yorubaland, Southwestern Nigeria, *Economic Geography*, 46(3), pp. 466

importance of leisure time that can be devoted to philosophy. What this assertion suggests is that any householder that owns a farm is not only a model for the state he/she is identified as the most valuable citizens. This classical thinking also holds true of the Africans who reason that cultivation of the soil is the basis of community life. Thus, there is a relationship between the locations of the farms and stability of the polis. This is because if the farmers are tied to a particular geographic location they develop a loyalty to the polis as a place. Hanson is of the opinion here that their investment in tree and vine crops requires multi-generational stability, they exhibit both a loyalty and a proficiency in the arts of defense and citizenship that mercenaries and those whose professions can be relocated will never have. He argues in this direction that of all the city states, Athens' development of sea power created a class of traders whose economic interests were not so closely tied to the land, leading to the political upheaval we associate with time of Socrates and the eventual clash with the more firmly agrarian Sparta.⁴² Studies in agricultural systems of the Ancient world avails us three typologies namely, that which was owned by the sovereign and centrally managed. Herein, practical knowledge was limited to members of the priesthood and a few overseers. Secondly, there is in contrast, the agriculture of the Peloponnesian Peninsula which relied upon relatively small production units controlled and managed by the head of the household. The third system was true *subsistence farming* found on the margins of the ancient world. This system was not productive enough to sustain the division of labor needed to support the military and economic institutions of civilization.⁴³

^{42.} For details, read: Hanson, Victor Davis. 1995. *The Other Greeks: The Family Farm and the Agrarian Roots of Western Civilization*, Berkeley: University of California Press.

^{43.} Mazoyer, Marcel and Lawrence Roudart. 2006. *A History of World Agriculture: From the Neolithic Age to the Current Crisis*, James H. Membréz, Tr. New York: Monthly Review Press.

In Africa and for Africans, the third typology applies for a number of reasons. Apart from the acknowledged approval of farming by the forefather that virtue requires everyone born of a woman a certain level of wealth to feed the household. In Africa therefore, household agrarianism is not simply a blanket praise of farmer's virtue, but is more properly understood as a philosophy that takes agriculture to be especially significant for larger questions in social ethics and politics. This explains why access to customary land and secure rights in Africa is a burning political question. With the rapidly growing population, the African sees access to cultivable land as a security in an insecure world; a sure way to human sustainability and continuity. For as the Tiv say *shagba dugh shin nya*. i.e., land is the sole source of wealth. The implied meaning here is that land (*Inya*) not only has an immense power over individual and social life, it also controls the human person and his/her existence and takes necessary action to ensure the community of communal life in collaboration with the ancestors who establishes prohibitive conduct.⁴⁴

This is an argument in the direction of advocating a more ecologically friendly approach in agro-ecological stewardship in place of drawing upon uncompensated harms or violations of human (or non-human) rights.⁴⁵ This is the argued position of Aldo Leopold's land Ethic in his holistic ecocentric vision that gives insights into the beauty of a

^{44.} For details, read: Ihuah S. Alloy. 2013. African Indigenous Ecological knowledge and Sustainable Development. In Maurice Nyamanga Amutabi (ed). *Studies in Culture, Gender and Education in Africa*. Nairobi, Kenya: The Catholic University of Eastern Africa (CUEA)

^{45.} This is a call acting or becoming native to our environment through self-consciousness of the structure and vulnerabilities of the ecosystem to be able to resolve agro-ecological problems that may arise from time to time. For further details and clarification, read: Jackson, Wes, Wendell Berry and Bruce Coleman. 1984. *Meeting the Expectations of the Land*. San Francisco, CA: North Point Press.

community of beings; wild places and wild things.⁴⁶ This is the premise under which African ontological categories situate land as second after God. This finds expression among the Tiv that *Aondo hemba, Inya dondo*⁴⁷. The Igbo of Nigeria express similar sentiments when they say, land (*Ala*) is the messenger of *Chukwu* (the great creator of the great God) and the most important spirit after Him”⁴⁸ This is the underlying idea in African agrarianism, as a mental attitude of the African people, as a mode of perception and interpretation of experienced reality and as a mode of value. Land provides the standard as well as the mechanism for affecting personal and social adjustment. What this entails is that the power of social integration which land encapsulate is based on the feeling and emotion of the ideal not on analytic logic or on empirical fact.

This is the land tenure system that informs the Tiv cultural frame work encoded in cultivation of the soil through a shifting farming process. This farming regime involves the pulling down grass (*ihyande*) for yam farm followed with *avom* mounds culminates into planting (which becomes *sule*, i.e, yam field (*itiev*)). When the yam farm is harvested, the farm becomes an old field or (*akuur*). Guinea corn, Barbara nuts (*igbough-ahi*) ground-nuts (*bum-ahi*) are selectively planted on the *akuur* in the third round of planting after which the *tsa* is allowed to fallow for three years. This cultural framework commonly practiced in Africa is a cultural framework for knowledge resource management. Gyekye alludes to this when he says,

our ancestors whose main occupation in farming knew of the systems of rotation of crops; they knew when to allow a piece of

^{46.} Leopold, Aldo 1966. [Sand County Almanac](#). Random House Digital Inc

^{47.} Read Ihuah S. Alloy. 2013. African Indigenous Ecological knowledge and Sustainable Development. In Maurice Nyamanga Amutabi (ed). *Studies in Culture, Gender and Education in Africa*. Nairobi, Kenya: The Catholic University of Eastern Africa (CUEA) Pp. 9-30

^{48.} Anyannnwu K.C 1983. *The African Experience in the American Marketplace*: Smithtown, New York, Exposition Press p. 109)

land to lie fallow for a while; they had some knowledge of the technology of food processing and preservation; and there is a good deal of evidence about their knowledge of medicinal potentialities of herbs and plants- the main source of their health care delivery system long before the introduction of western Medicine. (Even today, there are countless testimonies of people who have received cures from traditional healers where the application of western therapeutics could not cope).⁴⁹

This cultural script is an internalized plan consisting of routine steps with alternative subroutines decision modes, and room for experimentation derived from experiences and local knowledge of Tiv farmers over generations.

What is clear here is that, African agrarianism is a deeply religious one, regulated by codes of behaviour and customs approved by ancestors, and enforced by the gods in respect of land use. The socio-moral value of land here therefore lies in the emphasis on community, its wellbeing, and its ordered existence as well as on the strengthening of all vital relations.⁵⁰ For the African therefore, life consists in the mutual interdependence between natural and supernatural forces in the journey of peaceful living.

The use of symbolic breaking of the kola-nut by Africans (the Igbo in particular) to call all beings and forces to communion by saying: “He who lives above, the giver of life, we thank you, *Ani* (the earth Goddess) come and eat kolanut, *Amadioha* (God of thunder), come and eat kolanut, may the river not dry up and may the fish not die; we shall live”.⁵¹

⁴⁹. Gyekye, K. 1997. “Philosophy, Culture and Technology in the Post-Colonial Africa” in Eze, F.C. (ed), *Post Colonial African Philosophy*. 26-27.

⁵⁰. Anyannwu K.C 1983. *The African Experience in the American Marketplace*, p. 111

⁵¹. Momoh, C.S. 2000. *Substance of African Philosophy*. Africa Philosophy Projects Publications. p. 372

This ritual act is intent at rejuvenating the land to prosper for humanity to inherit the earth. For the African therefore, cultivating the soil is beneficial in many ways than one inclusive of spiritual, virtuous life of honor, self-reliance, courage, moral integrity, generosity and hospitality. By having direct contact with nature and, through nature, the farmer not only creates a closer relationship to God, he recreates order out of chaos in the image and likeness of God.

This is a philosophy of sustainable human environment that is informed by a nonviolent and gentle attitude towards nature. It is a consciousness of the limits in which we must live in order not to degrade natural and human environment. This philosophy guarantees a humane and more human friendly development which improves the quality of human life on earth. Devendra Kumar advises us here to learn from the bees the manner we serve nature in order to get its sustenance simultaneously. According to him,

The more the honey it collects from flowers, the more it serves in the propagation of the plants by helping in their fertilization. We could emulate the bees by fulfilling our needs through a similar symbiotic relationship with nature.⁵²

Thus, sustainable human development is a journey inward the essential human nature and the integral well-being of man in his material and spiritual life. It involves shifting the balance of human development towards improving the quality of human life on earth⁵³ This in no way suggest the superiority of humans over other lesser beings, it only encourages them to co-operate rather than compete with the lower

^{52.} Kumar, D. 2001. Excerpt from his Award Lecture, the *Indian National Science Academy (INSA) Annual B.D. Tilak Award for Rural Development*. Available at <http://www.insa.org>

^{53.} Ihuah, S. Alloy. 2010. *The Ethics of Science and Technology: An African Perspective*, Saarbrücken, LAP Lambert Academic Publishing AG & Co. KG. p. 2

creatures and to simply enlarge the boundaries of the community to include soils, waters, plants, and animals, or collectively the land⁵⁴ This is to say that the spirit world of Africa is intimately connected with the daily life of the people. K.C. Anyanwu alludes to this when he says,

the relationship between man and the spiritual world is maintained through many channels. Obedient to the codes of behavior and the customs approved by the ancestors and enforced by the earth goddess through priests and titled elders, and the heads of various extended families, is the most important channel⁵⁵

Thus, African Agrarian Philosophy here interpreted as rural agro-ecological practices avails the theoretical knowledge of man in setting him properly on the road to his dignity and destiny; of sustainable living in the biotic community. It rests upon the idea that every person and everything is related to every person and everything, and that human nature is good and instinctively seeks the divine and that humans only become dysfunctional when they grow up in a sick culture which produces violent and damaged humans. Humanity is organically embodied in a series of associations and relationships with nature which appears to have full value only in those close ties. African Agrarian culture is today at its lowest ebb needs to seek nourishment from traditional African system to remain relevant and functional. The need of moment therefore is to recalibrate African Agrarian Philosophy through African endogenous knowledge systems and critical heritage resource. To achieve this, we need to decolonize indigenous languages. In Kwesi Wiredu's view, we need to embark on a critical and comparative exercise of both (foreign and indigenous) conceptual frameworks in our own indigenous languages in order to further evaluate the intelligibility of

^{54.} Aldo Leopold 1949. [Sand County Almanac](#). Random House Digital Inc. p. 239.

^{55.} Anyannwu K.C 1983. *The African Experience in the American Marketplace*: Smithtown, New York, Exposition Press p. 109

these theories and concepts. He says then that,

....Try to think them through in your own African language and, on the basis of the results, review the intelligibility of the associated problems or the fallibility of the apparent solutions that have tempted you when you have pondered them in some metropolitan language.⁵⁶

The giant strides made by the Asian Tigers in recent years are directly attributable to their use of local languages in their educational system up to the university level. The use of local languages at all levels of education in these societies has also 'freed' these patches of indigenous knowledge which was hitherto locked up due to lack of use.⁵⁷ Considering the oral nature of African cultures, language can play an important role in cultural transmission and knowledge dissemination. This role is also tied to African identity. Appropriate promotion of African languages devoid of foreign idiosyncrasies can actually lead to a better understanding of rural agriculture and local knowledge known and owned (intellectual property) by Africans. The inability of African Governments to recognize, protect and preserve this knowledge system as intellectual property has slowed the development of its agro-cultural economy. We must therefore strive to develop African indigenous epistemic resources for beneficent environment. Claude Ake stretches this point further when he says,

^{56.} Kwasi Wiredu, 1995. *Conceptual Decolonization in African Philosophy: Four Essays*, ed. Olusegun Oladipo Ibadan: Hope Publications, p. 24

^{57.} In many ways than one, the power of African endogenous knowledge can be enhanced through language which will in turn promote African agrarianism for sustainable living. In many parts of Africa, ignorance of endogenous knowledge in the areas of biodiversity, herbal medicine and intangible heritage has exposed it to piracy which continues to date. Details can be found in Roy- Campbell Z. M. 2006. "The State of African Languages and the Global Language Politics: Empowering African Languages in the Era of Globalization". In *Selected Proceedings of the 36th Annual Conference on African Languages*. (eds) Olaoba F Arasanyin and Michael A Pembertu, 1- 13 Summerville, MA Cascalla Proceedings Project.

“we cannot fully emancipate ourselves...even though the principles of science are universal, its growth points, applications and the particular problems which it solves are contingent on the historical circumstances of the society in which the science is produced.”⁵⁸

Such is the idea of sustainable human development that guides African agro-ecological community. It is informed by a nonviolent and gentle attitude towards nature. It is a consciousness of the limits in which we must live in order not to degrade our environment and ourselves. This represents the spirit of the *African humanistic heritage*, an African moral philosophy that ensures care, concern, co-existence and communal responsibility that ensures a harmonious relationship with other members of the biotic community. It is the African spirit of self-reliance i.e., of making sense of the human soul through the human body, the appropriation of endogenous knowledge for African Agrarian Philosophy.

Thus, African agrarianism entails a conscious effort at inventing, improving and changing agricultural practices through the simplest tools on earth produced by men relying on selves to make man be himself to himself through a process of **self-retrieval** of the self. This is an African spirit that makes the call for the restitution of Africa more actual, acute and urgent.⁵⁹ This is a call for self-reliance in agro-ecological practice; a principle of progressive evolution by man/woman relying on the self in him/her to make a change in farming practices that improves the African environment in food production and processing through the self (i.e.

^{58.} Ake, Claude. “Editorial: Raison D’etre”. *African Journal of Political Economy/ Revue Africained’ Economie Politique*, 1 (1 Southern Africa in Crisis). 1986. P. ii-iv

^{59.} Ogundowole Ezekiel Kolawole. 2007. *Inexhaustability of Self-Reliance*. Lagos: University of Lagos Press p. 18.

self-retrieval of the self). Self retrieval of the self for the African is the needed impetus to resolve the challenge and trigger human and land resource development beyond imagination. Ogundowole's explicit point clarifies the matter better. He avers,

“the self, thus, is more than a mere summation of the social-historical and anatomic-biological in the human, not just the socio-biological, it is the totality of all these plus the correlation between them which thus constitutes the intrinsic life-force propelling the human towards creative, innovative purposive activity distinguishing the human from all other living beings, nay other animals”⁶⁰

Thus, self-reliancism, i.e. realization of the principle of self-reliance here argues for self-retrieval of the self. This means that, the self is a propelling life-force that engineers the socio-cultural material and immaterial, spiritual possibilities to so act for the positive change directed towards self-realization in all human endeavours. This philosophy seeks to reconcile agriculture and local communities with natural processes for the common benefit of nature and livelihoods. It employs a variety of methods to understand the varied components of the environment. This point has been stressed by Montmarque in his claim that,

it is only through practical work activity that higher virtues (such as justice or piety) become accessible to individuals. ... agricultural work avoids the secular attractions and temptations of sometimes more engaging commercial activities ... under an aspect of necessity rather than mere human preference or caprice⁶¹

^{60.} Ogundowole, 2007 *Inexhaustability of Self-Reliance* p. 18.

^{61.} Montmarquet, J. A. 1989. *The idea of agrarianism: From Hunter-Gatherer to Agrarian Radical in Western Culture*. Moscow, ID: University of Idaho Press. p.107

One point that must be borne in mind is that, in the cultivation of the soil, AAP must keep science relevant and future focused, it must strengthen knowledge and scholarly networks in traditional ecological knowledge resource to create new knowledge, intelligence and foresight capabilities to guide the direction of agro-ecological resource management to reduce hunger and poverty. Thus, self reliance not only instantiates satisfactory ways of knowledge resource management strategies for efficient agro-ecological practices, it encodes agriculture and food systems built upon moral ethics, creativity and innovation that unequivocally aligns with the needs, thoughts and actions of indigenous African communities.

Conclusion

Our discussion thus far reveals that African Agrarian philosophy is a lens with which Africa can implement Sustainable Development Goals (SDGs). This can be done by strengthening of endogenous agricultural practices that enables multiple pathways to create new knowledge, intelligence, science, and foresight capabilities. Our local challenges and the shortcomings of our industrial and technological economy notwithstanding, African agrarians should not only focus on diminishing poverty and hunger, they should endeavour to develop practices and policies that promote the health of land, community and culture hence the African survival is inextricably linked with food security. Africans must seek to sustainably nourish the earth and protect the right to food for the greatest number of people even as there is the increasing growth of human population and the decline of soil and water resources. While the arguments for and against the full use of technology in food production rages and the race for genetically modified crops are being advanced, the urgent need for establishing the morality of farming in Africa is sacrosanct. Indeed, it is not an exaggeration to say that a creative and explicit African Agrarian philosophy is important in the varied actions of individuals and groups in African agriculture. The urgent need of the

moment in African agro-ecological practices is an ethical dialogue; an open-ended, evolutionary and arduous process of intercultural debate and consensus-building revolving around the basic issues of relationship with nature, human fulfillment, and respect for the cultural rights of the individual and the community. African farmers must not only seek and mainstream environmentally friendly practices, they must develop a normative approach to agrarian thought and practice in the advancement of an alternative food system.

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