ECOLOGICAL KNOWLEDGE AND SUSTAINABLE PLANNING IN NIGERIA: A REFLECTION ON THE YORUBAS OF SOUTH-WESTERN NIGERIA

In pre-colonial times, African people survived by acquiring and preserving community knowledge of the environment and the relationships between human and non-human elements. The paper is based primarily on secondary data, and examines the relationships between African people, especially Yoruba people of southwestern Nigeria and the land and how understanding this relationship can help our quest for a more effective and sustainable regional planning. The study investigates the indigenous Yoruba Ecological Thoughts and Beliefs and how these affected the ways people have interacted with the environment. The result shows that there is a lot that modern planning can gain from the culture-environmental relationships of the indigenous people.

Indigenous knowledge is the cornerstone of several convergent trends in social science thinking and development administration practice. With the failure of grand theories of development, social sciences focus on middle-range theories that are site – and time-specific (indigenous knowledge). Both traditional knowledge and modern science and technology should be complementary in the development process and should be properly integrated. People are the subject of development. Development is supposed to suit the people and not the people to suit development. If Africa does not learn this lesson now, all our efforts at the development will be in vain, because Africa is ultimately only as strong as its communities are.

Keywords: sustainable, planning, Yoruba, ecological, knowledge, environment.

Introduction. The challenges in the socio-ecological systems of the planet earth today, no doubt reawakens man consciousness in the environment. Today, indigenous knowledge is seen as pivotal in all discussions on sustainable resource use and balanced development (Brokensha et al., 1980; Compton, 1989; Gupta, 1992; Niamir, 1990; Warren, 1990).

Indigenous Ecological Knowledge (IEK) represents one of the key, but neglected solutions to solving our environmental problems. The recognition that local and indigenous peoples have their own ecological understandings, conservation practices, and resource management goals has important implications. While previously they were perceived simply as resource users, indigenous peoples are now recognized as essential partners in environmental management (UNESCO, 2016). Survival depends crucially on acquiring and preserving community knowledge of the environment and the relationships between human and non-human elements. Traditional Ecological Knowledge (TEK) has been a vital part of the environment (Brodan, 1980; Brokensha et al., 1980; Compton, 1989; Gupta, 1992; Niamir, 1990; Warren, 1990).

In the main aim of this paper is, therefore, to explore the Yoruba ecological knowledge as a guide in development planning and implementation. Since indigenous knowledge is essential to planning and development, it is important that it must be gathered and documented in a coherent and systematic fashion (Brokensha et al., 1980; Warren et al., 1993), as part of the policy for local development.
Methodology. Ecological and physiological facts were obtained from published literature and from the observations of experienced people in the field. Oral interviews and unpublished drafts and literature were also used.

Traditional and Indigenous Ecological Knowledge. Ecological knowledge is often referred to in different ways, including but not limited to local knowledge, traditional knowledge, indigenous technical knowledge, peasants' knowledge, traditional environmental knowledge and folk knowledge (Sillitoe 1998). Ecological Knowledge may also be traditional or indigenous, as the non-indigenous group can hold important environmental knowledge (Nadasdy 1999). Ecological knowledge can be viewed from a wide range of social, cultural, and environmental contexts (Reyes-Garcia et al., 2006).

Moreover, local TEK and management practices can provide ecosystem services and help in understanding socio-ecological and adaptive management systems (FAO, 2014). USWFS (2011), views TEK as the evolving knowledge acquired by indigenous and local peoples over hundreds or thousands of years through direct contact with the environment. TEK encompasses the world-view of indigenous people, which includes ecology, spirituality, human and animal relationships, and more. Hence, indigenous knowledge becomes something very much driven by the pragmatic, utilitarian and everyday demands of life (Briggs, 2005).

According to the United Nations Convention on Biological Diversity (UNCBD)(2016), traditional knowledge is the knowledge, innovations, and practices of indigenous and local communities around the world. For rural and indigenous peoples, local knowledge informs decision-making about fundamental aspects of day-to-day life.

Ecological knowledge is defined broadly to refer to the knowledge, however, acquired, of relationships of living beings with one another and with their environment. Brokensha et al. (1980), Sillitoe (2000) and Fernando (2003), made a synthesis of relevant literature and considered indigenous ecological knowledge to be a body of knowledge existing within or experiences, society–nature relationships, community practices and institutions, and through passing it down through generations. In South Western Nigeria, for example, native peoples often refer to their knowledge of the land rather than to ecological knowledge.

Integrating Traditional Ecological Knowledge into contemporary Resource Management. No doubt, there are intractable differences between indigenous knowledge and scientific knowledge. According to Agrawal (1995), indigenous knowledge differs from Western or scientific knowledge on:

- Substantive grounds – because of differences in the subject matter and characteristics of indigenous and Western knowledge.
- However, indigenous knowledge is relevant to environmental assessment, education, Land use planning, Negotiations, Treaty land entitlement selection, cultural/heritage destinations, Fire suppressing planning and natural resource management, among others (Hill, 2008).

To ignore people’s knowledge is almost to ensure failure in development (Brokensha et al., 1980).

The recognition that local and indigenous peoples have their own ecological understandings, conservation practices, and resource management goals has important implications. While previously they were perceived simply as resource users, indigenous peoples are now recognized as essential partners in environmental management (UNESCO, 2016).

The combined potential of TEK and scientific knowledge should be harnessed to enhance the environment and human well-being (Harisha et al., 2016). According to Dekens (2007) cited in Mercer et al (2009), rather than neglecting indigenous knowledge has it is often the practice, empowering communities to identify the most applicable and effective indigenous knowledge and integrate this with the most applicable and effective scientific knowledge to develop new practical approaches to tackling environmental concerns and promote development at the local level (Tran and Shaw, 2007).

There is no doubt, indigenous knowledge represents an important component of global knowledge” (World Bank, 1998, as cited by Adam, 2012). Therefore:

- Indigenous knowledge should urgently be documented to avoid the loss of vital information as the elderly custodians of knowledge disappear from the scene.
- Laws to safeguard intellectual property rights relating to indigenous knowledge should be enacted.
- There should be a memorandum of understanding between owners of indigenous knowledge and the Western world, especially in the community knowledge that has commercial value.
- Efforts should be made to convert indigenous knowledge into electronic storage so as to increase the life span of such knowledge.
- Those wishing to harness Indigenous knowledge must be ready to compensate providers of such knowledge.
- Indigenous knowledge must be integrated with modern knowledge and taught in community schools so as to get it popularized among the public.

**Yorubaland in Nigeria.** Yoruba people are a large ethno-linguistic group or ethnic nation in Africa, and the majority of them speak the Yoruba language. About 20 percent of the Yoruba still practice the traditional religions of their ancestors. The practice of traditional religion varies from community to community.

Olorun (Sky God) is the high god, the Creator. Believers in the Yoruba religion turn to Ifa in times of trouble. Another god, Ogun (god of war, the hunt, and metalworking), is considered one of the most important. In Yoruba courts, people who follow traditional beliefs swear to give truthful testimony by kissing a machete sacred to Ogun. Sango is the deity that creates thunder. The Yoruba believe that when thunder and lightning strike, Sango has thrown a thunderstone to earth. Nearly all Yoruba still observe annual festivals and other traditional religious practices. The Yoruba practice polygamy (having more than one wife).

**Yoruba Ecological philosophy.** Mbati (1969) best
summarizes the relationship between African people and forms in nature as follows: "...For African people, this is a religious universe. Most rivers in Yoruba land, Nigeria, are named after one hero or event to personify them.

The earth also has its significance to the African people. The land is valued as a resource of livelihood. The land produces food and water, which give life to all living things. The earth provides the water and air, which keep human beings alive.

The earth is venerated in Yoruba land because of the myth that surrounds the creation of man, which credited the earth to be in control of the physical form of man. The earth also supplies food for human consumption, and so it keeps "life going". That is whoever betrays the earth, or breaks the covenant, shall be punished the earth.

Moreover, the importance, the Yoruba ascribed to the earth is based on their belief that life should be preserved. Above all, Yoruba have different ways of exalting the earth. Yoruba people believe that the earth permits its entrance of the soil because it knows the right way to praise the earth. The Yoruba mythology of the earth's creation revealed that sand was poured on the surface of the water to create the lithosphere.

**Yoruba thought and the Western Spiritual based earth beliefs.** A Yoruba belief on earth examined in the previous section has many things in common with the recent spiritual – based earth beliefs of the western world. The eco-feminism beliefs in the earth as nature's mother who sustains life on earth by providing shelter, food and other resources necessary for man's survival.

The deep ecology concept believes that the earth and all other creations therein are one entity that is intrinsically interconnected can be related to the beliefs of Yoruba that the earth was first created while the man was created from the earth with other plants and animals sourced from the earth to support man.

While the foregoing relates the spiritual earth base beliefs of the western world to Yoruba beliefs, the concept of Bio – regionalism built upon them is not an alien thought in Yoruba land. Yoruba from time had been 'living in place' conscious of their environment.

**Environmental Philosophy.** Thoughts on the ecology of a people can be deduced from the people's traditional religion. Those things associated with gods and goddesses by the traditional Yoruba religion include prominent objects of the natural environment and other phenomena inexplicable to the minds of the Yoruba.

A close look into the Yoruba traditional belief reveals the principles of biocentrism. Yoruba people believe that the worship of gods especially, the earth or land god is primordial to human existence. The people appease the gods to make certain activities successful. Contrary to the belief of anthropocentrism, Yoruba people believe that the earth or land is central to creation while the man is subject to the dictates of the land. An example of this is the worship of Ori (metaphysical head) in Yoruba land.

In traditional Yoruba religion, the earth or land was worshiped probably everywhere without exception. In all other places, the Ogboni cult has taken over its worship, the cult worship the earth or land as spirit. Above all, the earth – god gives power to the unique Yoruba bond of secrecy and sacred oaths. The following earth praise (Oriki) summarizes this: Ile Ogere - Land; thy name is mystic in creation

In Yoruba land, the farm – god or Orisa oko is also worshiped because of the people belief that the Orisa – oko is responsible for successful farming, which is the primary occupation of the people.

The worship of the earth by the Yoruba people is synonymous with the worship of Gaia – the Mother Earth Goddess of the Greeks. Esu (devil) carried sacrifices to other gods, Yoruba believe that indeed Esu can and does instigate men to offend other gods.

Trees/forests: Yoruba responded to the dense and profuse vegetation of their environment by worshipping the gods believed to reside therein. The spirit inhabiting the ayan (a tree) was the Yoruba god of drums.

Animals: The habitat of Yoruba land favored the existence of numerous animals considered as embodiments of various gods that were worshiped.

**Summary and Conclusion.** Indigenous knowledge can be important and helpful in many areas of human endeavours. Indeed, Indigenous knowledge is the cornerstone of several convergent trends in social science thinking and development administration practice. With the failure of grand theories of development, social sciences focus on middle-range theories that are site - and time-specific (indigenous knowledge). Yoruba people believe that some spirits are responsible for certain activities of their existence and survival on the earth surface and such spirits must be appeased. Both traditional knowledge and modern science and technology should be complementary in the development process and should be properly integrated.

People are the subject of development. Development is supposed to suit the people and not the people to suit development. If Africa does not learn this lesson now, all our efforts at the development will be in vain, because Africa is ultimately only as strong as its communities are.

**References:**