



# **LAGOS NOTES AND RECORDS**

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## Editorial Policy

*Lagos Notes and Records* is an annual, interdisciplinary journal of the humanities. It is devoted to the publication of well-researched articles in all the subjects in the Arts, Social Sciences, and Law. In addition to original articles, the journal publishes reviewed articles/books, brief accounts of work in progress, notes and comments on issues arising out of recent publications.

## EDITORIAL

This current Volume 23 Issue of *Lagos Notes and Records* contains contributions that may be described as cross-disciplinary within the larger field of the humanities. It presents theoretical and research-driven contributions from established and upcoming scholars and researchers including doctoral students whose manuscripts were adjudged publishable after a peer review process. Significantly, the inclusion of a contribution from National Space University, Ukraine further lends credence to the international reputation that the Journal has earned for itself over the years.

In Nwagbo's paper titled "First language lexical attrition: the case of the Igbo in Lagos", the author observes that the non-use of a language or parts of it, over time results in attrition that is, deficient performance in that language. The study focuses on attrition in Igbo with a view to delineating the degree, nature and factors responsible for attrition in Igbo in the context of experts in the language. Paradis' Activation Threshold Hypothesis was adopted as guide and 30 participants comprising undergraduates, post-graduate students and lecturers in the Igbo language unit of the Department of Linguistics in the University of Lagos were purposively sampled. The sample population was within the ages of 25-45 and were interviewed with the aid of a 30-word list comprising foodstuffs, household, greeting, nominal labels and grammatical items. The result reveals that the 30 words were at different stages of attrition, onset, medial and critical stages. The participants used mainly English equivalents of the words, and in few cases Yoruba. The Igbo words that were easily recalled (EWR) represent 46.67%, the words that were difficult to recall (OWR) represent 23.33%, while the words that were



impossible to recall (BWR) represent 30.00% of the total. The attrition affected the performance of the participants and not their competence, as they attested to knowing the traditional Igbo words upon the revelation of the researcher. The factor responsible for attrition was mainly the infrequent use of Igbo and the more frequent use of English. It is deemed paramount for Igbo to use their traditional words irrespective of locale for the purpose of preventing language loss and projecting the Igbo identity.

Abdul Sunokpera in his work explores the application of Discourse Space Theory and Conceptual Metaphor to the Inaugural speech of Muhammadu Buhari. Using these two theoretical models, he describes how political actors use language in both its literal and literary senses to shape discourse and by extension reconstitute certain values among the citizenry. The paper focuses on how political actors draw on certain rhetorical devices to manipulate and convince the citizenry about their dedication and commitment to serve them.

Anowu's paper on legal discourse focuses on the use of interrogative acts in election petition tribunals in Nigeria. He asserts that interrogatives are critical means of communication in the question and answer adjacency pair that generally characterizes discourse in courtroom interactions. Essentially, counsel deploys questions in order to probe into the facts of a case. Speech Act Theory as an effective means of communicating speaker's intention provides a clear basis for analyzing the import of questions in law courts. Using the proceedings of the election petition tribunals on the 2007 gubernatorial election in Osun State, south-western Nigeria, as data base, it was discovered that interrogative acts communicate six different intentional meanings. The enactment of these acts in the tribunals not only goes a long way in engendering the negotiation of meaning but also facilitates the accomplishment of the institutional goals of the legal system in Nigeria.

Ademola-Adeoye and Ayodeji Adedara examine the various rhetorical devices and sentence structures used in the inaugural species of the first and current governors of Lagos State, Nigeria,

with a view to comparing and contrasting the rhetorical styles of a military regime and that of a civilian. The findings of these Scholars indicate that more pronounced and deliberate usage of solidarity pronominalisation in the civilian governor's speech, in addition to more extensive use of a broad range of rhetorical devices therein. Moreover, the military inaugural is much shorter than the civilian one. This is perhaps in keeping with the more discursive character of democratic governments, where much of the politicking is achieved via apparently monologic and dialogic talk. It is therefore suggested that more scholarship needs to be undertaken on the discursive character of the world's new democracies.

Olusegun-Joseph writes on the responses of postcolonial travel narratives to the marginalising tendency of colonialist travel writing, which among other things, depicts colonial outposts as exotic sites of European discovery, cultivation and re-orientation. He examines how North African travel writing has interrogated this colonialist practice as an Afro-Arab/Afro-Oriental reaction. Engaging Tayeb Salih's *Season of Migration to the North* with an insight from Edward Said's *Orientalism*, this paper argues that the North African travel text has benefited immensely from the Oriental body of folklore, the *Arabian Nights*, to reflect the Afrabian (Afro-Arab) difference of the North African travel narrative in African literature. Thus, among other imaginative traditions that might have informed what could be identified as the North African post-Orientalist stance in travel writing, the *Arabian Nights* has been an invaluable resource. Along this line, the paper advances that 'The Story of Sindbad the Sailor' has helped to project the post-Orientalist strategies and challenges of the North African travel text as highlighted in Salih's *Season of Migration to the North*, and has also aided in crystallising the depiction of North African experiences in the global politics of migration, exile and multicultural belonging.

Ogunbayo identifies mythical patterns which foreground humanistic issues in the works of new generation of Nigerian poets other than that of the older generation such as Christopher Okigbo, Wole Soyinka and Tanure Ojaide. Specifically, in Isidore Diala's *The Lure of Ash*, the paper observes a resurgence of sublime verses which



handle serious matters, using the archetype of "Ash". The study sees "ash" as Diala's mythic tool of deciphering the stages of growth of individual and institution. Using post-Jungian idea of Lawrence Alschuler which perceives the human society as going through individuation process, this paper examines how Diala perpetually interrogates existential experiences like dictatorship, power mongering, social restiveness, love, political violence, civil unrest, religious alienation, illusion, death and rebirth. Diala balances his poetic vision by using "ash" to mythically capture causes and effects, actions and inactions and varying national concerns. He submits that from a Post-Jungian reading of Diala that the poet envisions the growth of his society as passing through tripartite phases of self-immolation, self-assertion and self-assessment. These stages are pivotal in understanding the protean nature of humanity from the mythical viewpoint.

Rhizhkova examines and discusses the concept of intertextuality in Russian discursive texts. He argues that the concept of intertextuality is relevant to virtually all types of text even as intertextuality of an artistic text can be considered as the basic procedure for the process of integration of classical, non-classical and postmodern scientific paradigms. The article examines approaches to the study of intertextuality, the interpretation and realization of this concept, its linguistic nature and the tendencies for its self-organization.

Faloju and Ajikobi discuss personal pronouns class in Russian and Yorùbá languages. They argue that these pronouns are characteristically heterogeneous in nature, particularly when compared with other grammatical categories. Since pronouns are words used to refer to nouns, most pronouns are pro-forms for noun phrases. This paper analyses the class, usage, structure and meaning of the personal pronouns in the Russian and Yorùbá languages. It employs a descriptive approach in bringing to light the similarities and differences present in the personal pronouns of the two languages. It argues that a proper understanding of the personal pronouns of each language is key to understanding the language and the culture of the two people since elements of culture are embedded in the personal pronouns. They conclude that denotative meaning is

the primary role of personal pronouns in a given proposition, while connotative meaning is seen as the secondary role.

Ajola and Olusola in their paper observe that one major problem facing contemporary African humanity is closely associated with careless exploitation of nature for modernity. The paper historically examines the changing trends of urbanity in relation to environmental sustainability. It posits that rapid de-agrarianization, frequent drought and other related environmental problems facing people in African negative effects of urbanization. Rapid urbanization in some African cities has generated enormous vulnerabilities for the African environment.

Ogunjewe submits that though the colonial heritage of the nation Nigeria has had tremendous impact on the struggles for nationhood, some of these challenges should have been adequately addressed in the more than fifty-seven years of its independence. These struggles which range from sovereignty, to geography, to identity and the struggle for power and resources among others should have been reduced drastically by successive administrations since independence. This paper presents unity and cohesion as a fundamental requirement as well as an integral part of nation building and nationhood. Indeed, the unity of a (any) nation despite her heterogeneity and diversity is a critical underlying principle and foundation for a lasting and progressive journey into nationhood. It undertakes a historical examination and analysis of the colonial legacies in the various aspects of Nigerians lives and as well as the efforts and strategies engaged or adopted by the various governments and leaders to extricate the colonial legacy challenge from the nation's desperate march into nationhood. It analyses the Legacies of Identity and Geography, Political, Domestic, Military, Socio-Cultural, Economic and Commonwealth Legacy while analysing the limitations and hurdles in the process of the transforming the different components of the nation into a formidable, cohesive and progressive entity where every citizen will be proud of the corporate identity.

Nweke examines the role of music in worship. The study finds out what goes on in people's minds when they are engaging in worship using music. It highlights different things that goes on in the mind of



worshippers while engaging in worship using music. The study also reveals that when music is properly used in worship, one is inspired; such inspiration is displayed through one's emotions (positive) such as joy, happiness and excitement, this thereby creates a better individual resulting in a better society.

Asodun in his paper submits that there is ample evidence in Artificial Intelligence (AI) research indicating that appropriately programmed machines are capable of performing functions that require intelligence when performed by humans. However, there is no correlative record that any such machine has been able to pass the Turing Test (TT); an intelligence test purposely designed by Alan Turing to actualise his objective of justifying machine intelligence. On the ground of this paradox, critics of the TT consider it as an exercise in waste. This paper interrogates this conclusion, and avers that it is the same condemned TT that lays the foundation for the emergence of Information and Communication Technology (ICT). Such a dignified feat questions the labelling of the TT as being wasteful. To put this discourse in its proper perspective, the paper presents the TT as an attempt to showcase how machine can be designed to engage in communication and information processing in such manner not distinguishable from how humans perform similar functions. History, as reflected in the paper, pinpoints to the fact that the desire to actualise the TT's objectives ignited AI researchers to successfully design what are known today as Information and Communication Technologies (ICTs). Indeed, the role of these technologies, as catalytic to human development, is quite revolutionary. The paper therefore argues that we should look beyond the TT controversy and navigate our attention towards the Test's magnanimous contribution to ICT-based modern world digital transformation.

This collection of essays on a wide range of subjects such as language attrition, legal discourse, poetry, intertextuality in Russian texts, economic history, philosophy among others demonstrate the growing body of research and literature interrogating contemporary issues in modern society. It is also very interesting to note the growing inter-institutional and inter-(intra) disciplinary

collaborations in some of the essays. It is anticipated that this volume will push the frontiers of research and open a new vista of intellectually and socially-relevant research works in these and other areas of humanistic disciplines.

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# From Agrarian to Consumerism: The African Environment

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## Abstract

One major problem facing contemporary African humanity is closely associated with careless exploitation of nature for modernity. Modernization, industrialization and urbanization of African cities through unwholesome exploitation of nature constitute huge challenges for sustainable environment on the one hand, and the quality of life of urban dwellers. The unprecedented transition from agrarian based societies in Africa to urban consumerist lifestyle threatens the African Environment and humanity in the 21st century. Modern urbanization and the rise of mega cities and urban sectors in Africa has untold consequences, in terms of increased vulnerabilities not only to climate change, but also to myriad of hazards such as cyclones, change in ecosystem, flooding, rise in sea level, coastal erosion, and dysfunctional temperature. The paper historically examines the changing trends of urbanity in relation to environmental sustainability. It posits that rapid de-agrarianization, frequent drought and other related environmental problems facing people in African negative effects of urbanization. Rapid urbanization in some African cities has generated enormous vulnerabilities for the African environment.

Keywords: African, Urbanization, Humanity, Environment,  
Consumerist

## Introduction

This paper examines the nature of African cities and urbanization in relation to the on-going debate on environment sustainability. The African environment provided immense opportunities for modest agrarian accumulation, growth of town and cities and social organization (Uzoigwe, 1988). Unlike the contemporary human relation with the ecosystem in Africa, early humans in the continent conscientiously exploited the environment for descent human existence (Kwashirai, 2007). They made tools, foraged for food, hunted and annexed forest resources for architectural development. Ancient Homo sapiens in Africa developed natural shelters and built a sustainable environment (Buliet, Crossley, Headrick, Hirasch, Johnsosn & Northrup, 2008). Indeed, the environment was an important place for African humanity in the pre-colonial era. In spite of the Paleolithic, Mesolithic and later Neolithic material culture available to Africans in earliest times, a number of measures and strategies were employed in the process of urbanization, food production and societal development to a degree that curtailed epidemics, diseases, disaster, and environmental degradation. (Buliet, Crossley, Headrick, et al 2008)

Earliest complex societies in Africa earned their living, formed settlements and struggled for survival in their different environment. To be sure, diversities of climate and nature of the physical environment in the continent to a large extent dictated the economic activities and the pattern of town and cities evolution. For example, Africa consists of some of the driest deserts in the world (the Sahara and the Kalahari), some of the hottest places on earth (Sub-Saharan Africa and parts of Northern Africa), and some of the thick rain forests, gigantic lakes and extensive dry savannah grasslands in the world are found in the continent. In addition, rivers such as the Nile, Niger, Congo with other wealth of nature like forests, mountains and so on were protected against human careless encroachment or abuse. The means of livelihood and human existence in Africa in earliest times rested solely on economic activities, such as agriculture, trade and commerce, hunting, husbandry/pastoralism, mining and extractive industries, and the environment was homely for human habitation prior to colonialism, modernity, globalization and urbanization.



However, despite the technological sophistry and modernity in the 21st century, which has accounted for a relatively advancement in the growth of cities and level of urbanization, the result is destruction of biodiversity and ecosystem leading to a more severe outcome in the light of the present climate change. African cities are becoming one of the most vulnerable areas to the imminent global warming, due to uncoordinated urbanization and ecosystem destruction. The increasing emission of greenhouse gases, deforestation, reclamation, damaging effect of pollution and release of toxic chemicals caused by unregulated population growth, unplanned cities poses enormous challenges for humanity and sustainable development in Africa. Some of the imminent catastrophic danger it holds are high winds, flooding, coastal erosion, cyclones, sea rise and food insecurity. Modern urbanization strategies and globalization has however, had profound changes on the ecosystem, climate, food, human and development in Africa. African rapid urbanization and growth is increasing and it poses enormous threat to the environment. This paper examines the changing trends in environmental management and sustainability. Using the historical analytical style, it investigates the changes and continuity in the growth of cities in connection to the future of humanity and the environment in Africa.

### **The Global Environment and Sustainable Development**

There is a wide range of literature on environmental sustainability and management. Urbanization however has been discussed indepthly across various disciplines using different index. One of the widely used indices is housing (condition, density). Most of the existing works focuses more, however, on how environmental change has been a reflection of the change in climate especially in the developed areas of Europe, Asia and America. Only a handful of scholars have drawn the line between the African environment, urbanization and sustainable development historically. For example, (Mozaharul, Rabbani, Alex, Kystel, Salemul, Gordon, Pierre, Gina Muller, Gina, Sheridan, Awuor & Savi, Rais, 2007) examines the vulnerabilities of some coastal cities in Europe, Asia, and America respectively. Mozaharul, & Rabbani, (2007) study of vulnerabilities and responses to climate change for Dhaka environment and

urbanization highlights the environmental effects on human settlement and consequential implication on infrastructure development on climatic and atmospheric condition of Dhaka. Their study shows, that city based development such as the growth of national and international business, opening of new trades and expansion of private and public industries and infrastructures indeed, accounts for rapid urbanization. This however, contributes enormously to Dhaka's vulnerability to green house gases, flooding, which damages economic potentials of the area. Dhaka's city expansion brings about surface water contamination, reduction in groundwater, inadequate solid waste sewage management, water logging, proliferation of slums and squatter settlements. The problem of drainage congestion and floods according to Mozaharul, & Rabbani, (2007) are connected to the rapid rate of urbanization.

McGranaham, Balk & Anderson (2007) focusing on human settlements in low elevation coastal areas also pinpoint the cumulative consequences of population drift and rapid urban development in Asia. Relying on population capacity, economic status of major cities in line with the ratio of vulnerabilities of coastal settlements to hazards, McGranaham, Balk & Anderson (2007) data collected for China and Bangladesh reveals that colonialism and the expansion of international trade in the age of colonialism aided the surge of coastal cities in Asia. For china, modern economic growth and overt concentration of a large proportion of its demographic dividends in the urban region poses serious threat to human and environmental sustainability. Given this, McGranaham, Balk & Anderson (2007) therefore concludes that in the world as a whole, but most notably in Asia, not only are urban populations more likely to be in the LECZ than rural populations, but larger urban settlements are more likely to overlap with the Low Economic Zones (LEZ) than smaller urban settlements.

Similarly, Sheribinin, Schiller, Pulsipher; Krystel, Glehouenou; Saleemul, Sari, Hannah and Satterwaite (2007) examines differently the vulnerabilities of global cities to climate hazards from a multi dimensional approach. Schribinin, Schiller & Pulsipher (2007), identified two major factors causing diverse climate related disasters



in global cities. These are regional increases in the severity, and periodicity of hazard events. Drawing examples from Mumbai (formerly Bombay) in India, Rio de Janeiro in Brazil, and Shanghai in China, these scholars alludes that the burgeoning proportion of the world's population residing in the cities and towns close to coastal areas, coupled with pacific and Atlantic cyclone-generating zones accounts for the high sea surface temperature that characterizes the impending global warming.

Explaining vulnerability as the extent to which a system or unit is susceptible to harm, traceable to exposure to perturbations or stress and using a "gap analysis" which identifies areas of exposure and vulnerability and points to areas of adaptive capacity and risk management, Schribinin, Schiller & Pulsipher, (2007) provides a baseline information on climate in each cities. In a study on the vulnerabilities of global cities to climate change hazard, Krystel & Bernadette, (2007) focusing on Benin Republic, revealed that the overt concentration of a high proportion of the city on the coast, building residences and economic activities contributes to the gradual transformation of Cotonou into an urban centre. This however makes the region vulnerable to sea-level rise and other disastrous hazard on human and natural systems. The overarching consequence of this, Krystel & Bernadette, (2007)'s eye has been a sudden increase in salinity, change in water quality and ecosystem, reduction in biodiversity, drinking water problems, intensive flooding and coastal erosion, increased atmospheric temperature and human settlements. The urban infrastructure development around the coastal areas in Benin, has brought about intense geomorphological changes, arising from eustatic, neotectonic and sedimentological hazards on the environment.

Mukheibir & Ziervogel (2007) with an eye on the Cape Town examines the global phenomenon "climate change" in relation to the vulnerability and repercussion on the environment future and municipal inhabitants. These scholars aptly offer an incisive analysis of the effect of climate change to the economic productivity of the most vibrant state in the rainbow nation. Mukheibir & Ziervogel (2007) notes that given the copious similarities between the climatic

condition of South Africa and European states, the peculiarity of climate change tend to assuage rigidity in its climate, unlike that of other countries in Africa. Situating the level of susceptibility of South Africa to this average atmospheric condition, Mukheibir & Ziervogel (2007) sees the effort of the United Nations framework Convention on climate change (UNFCCC) for the least developed countries (LDC), as a major strategy in reducing the negative consequences of climate change. Furthermore, they show the marked differences between climate change and variability in connection to global warming. The issue of climate has brought about the use of frameworks and approaches to undermine the strength of the climatic condition in order to abate its effect on the economic growth of South Africa, especially the Cape Town. Among these approaches are adaptation to short term climatic variability; adaptation of policies and measure with developmental goals among others. (Mukheibir & Ziervogel, 2007)

Another category of works worthy of note focuses on urbanization and housing development is Freundlich in 1930. Freundlich examines the Austrian government's policies and intervention in housing improvement in Vienna since the post war financial crises in Austria. Emmy historicized and revealed how Austrian government built new houses and reconstructed old structures for low income earning citizens, particularly the housewives of soldiers who could not pay the fixed higher rents in private owned houses as well as regulation of rents paid by tenants after the First World War. Freundlich (1930) importantly demonstrates, explicitly government's deployment of the building department in the municipal in bridging the gap between the rich and poor people; a strategy which among other things led to an inclusive housing development and redistribution. A major conclusion of the study is that Austrian government moderated land use and architectural pattern and housing distribution in a degree that allowed for social harmony.

Similarly, Xiangming & Xiaoyuan (1993)'s study "China's Urban Housing Development in the Shift from Redistribution to Decentralization" investigates the effect of government's economic and housing reforms on urban housing improvement in china during



the early period of transition from central state redistribution to administrative and fiscal decentralization. These scholars clearly showed how the Chinese socialist redistributive economies and central state planning inhibited urban housing development through adaptation to production investment at the neglect of housing investment and controlling the acute urban housing infrastructure via administrative monopoly likened to a subsidized redistributive product. Xiangming & Xiaoyuan (1993) argues that the Chinese government's monopoly over land prior to the transition era accentuated the pre-existing housing shortages and therefore suggest that enabling private investment over available land are major indicator to improving China's standard of living and spur social development. A comparison was made between centrally planned and market based housing schemes of the 1970s and 1980s and concluded that the combination of government's intervention and market coordination tends to improve the quality, adequacy and redistribution of urban housing. Following this trend, (Corinne, 1997) in a study titled "The need for community based Housing Development in Integration Effort" analyzes the implication of government- segregation and discriminatory housing policy in the United States and pictured its long term implication on housing development on urbanization and proliferation of ghettos, and high crime rate in areas affected by racial induced policies. Corinne brilliantly established that as social economic improvement transposed, community-based development can serve to provide decent and affordable housing that can outlive government's housing subsidies, in addition to fostering rural urban integration and mutual cooperation. He argued that community based development will complement government's subsidized housing.

Cerdic (1985) in his work "housing and development in Singapore pinpoint core government's strategies taking by the People's Action Party (PAP) through the public housing activities of the housing and development board (HDB). He notes that the social, political and economic modernization Singapore experienced between 1950s and 1980s steamed from 'massive urban planned new town housing, industry, shops channels formed between the urban residents and the government. The general housing policy in Singapore as discerned

from Cerdic Pugh's analysis facilitated rapid housing development in the municipals, while in the towns negatively affected the welfare and social development of rural Singaporeans. Cerdic (1985)'s study empirically identify the economic and social value in housing, political development and housing policy, economic issues in housing development. He establishes inter alia that the key problem in housing system between 1960s and 1980s was difficulty in formulating a coherent policy that could take cognizance of the welfare of rural people. Since state control has been central to Singaporean's housing in pre-democratic history of the country, consolidation of democratic practices had influence on combine housing development in Singapore. Pugh concluded that Singapore housing system in the twenty century was though effective, he however suggested that ensuring a flow of resources and finance into housing from government's savings and investment, vis-à-vis creating statutory development board that will channel allocated resources for social housing for the civil society.

For Africa (Figure 1), Obudho (1976) uses several social indicators to determine whether meaningful housing development had taken place in the continent since post independence era. The social indicators he adopted include; internal migration, development of the slum settlements, spatial change taken place in the rural areas and the rate of employment opportunities, urban demographic structure, earning levels and working conditions in relations to national economic development. Obudho (1976) established that integrated and sustainable housing development is only achievable where these social indicators for urban development are used at supranational, national, and specific or local levels. His analysis in Africa however suggests that there has not been any meaningful integrated housing development in the region since the past few decades. Obudho, & Abiodun, (1976) using a statistical analysis presented a data that depicts some level in housing improvement in Ibadan of an annual growth rate of 3.0 percent between 1953-1963, while Lagos had 8.6 percent housing development rate within the same period, including some settlements outside the Federal Territory of Lagos, but within Lagos metropolitan area, grew at a rate of 11.5 per cent housing per



annum. Abiodun (1976) points out that in 1970 metropolitan Lagos was estimated as having an annual growth rate of 13.6 per cent.

In his work, *Urban Land Use Change Analysis of a Traditional City*, using Remote Sensing to derive the data Ibadan metropolitan areas, Fabiyi, (2006) examines urban land uses and the increasingly changes of different forms, sorts and types since urban explosion of the 1970s when People started moving to cities en-mass from the rural hinterland to the cities in search for gainful employment. Fabiyi (2006) was able to pinpoint dynamics and changes in Ibadan metropolis and the major contributor to changes is the vegetal cover, low density and sprawl development. There are growths by fission within in even the high density areas and the catchments area for rivers is also location for urban spatial growth or change. He however, suggests ways to control unplanned urban growth that characterizes Ibadan and major urban settlement in Nigeria.

From the foregoing, there is an expanding gap in the extant scholarship on environmental sustainability in Africa (Figure 1). Much of the existing works on climate change, environmental management and sustainable development have focused more on the impact of industrialization and modernity on major cities in Europe, America and Asia. Put succinctly, as important as the wide studies on housing, land uses, climate change and several environmental related issues, they overlooked African environment. Very few works have placed Africa at the centre of discourse especially within the context of the environment and sustainable development



Figure 1: The Continent of Africa showing its Countries

### Pre-Colonial African Cities and its Environment

The African environment has been modified several times over the course of its existence and has endured up till the present time. The forest dynamics, soils, vegetation and population settlements also encountered diverse transformations from time immemorial. The African environment has been discussed on various topical issues in different literatures due to its significance especially as it concerns the existence of modern man in Ethiopia and early civilizations in Egypt. However, the crux of modern narratives has been on the anthropocene. The impact of man on his own environment has been the key determining factor in the history of African environment. The imprints of African man on his environment in pre-colonial times have been labeled benign rather than degrading (Vansina, 1990; Schroenbrun, 1998). Based on earlier works on indigenous knowledge, studies have been able to show that farmers in West African societies especially the Kissidougou Region transformed their landscape by creating islands of forest vegetation around human settlements – areas that would otherwise have had little forest cover (Vansina, 1990; Nhira and Fortman, 1992; Schroenbrun, 1998)



Prior to the colonial period, traditional African societies have been concerned with their ecosystem as against the notion that conservation and care for the ecosystem came with the colonial masters. This is revealed in form of land management, agricultural practices such as terracing and nomadic movements. In the fragile, semi-arid environments, nomadic pastoral behaviors accounted for preserving the balance between human and environmental survival for the past several thousand years in, for example Kenya and Tanzania. This was also well observed throughout the African landscape based on the amount of wildlife and plant species that Africans were able to sustain before the industrial era. The human-environmental dynamics operating in the pre-colonial era ensured sustainability (Matowanyika, 1991) due to the fact that pre-colonial societies were sustainable in their use of technology, concerned with local control of resources (local resource users developed intimate knowledge of the ecological status of the resources, rates of reproduction, rates of sustainable off-take, as well as forms of sustainable off-take. Numerous examples can be adduced from local myths and religions to demonstrate the ways in which indigenous knowledge was deployed and reinforced to regulate resource use), seen as using sustainability as the primary means of social survival, giving the environment a spiritual and aesthetic reverence (central Kalahari Game Reserve, Moremi Game Reserve Chief's Island in Botswana, Gonarezhou National Parks in Zimbabwe, Tsidilo Hills, Mamili National Park, Salambala in Namibia, Umfolozi National Parks in South Africa, etc), preserving animals and plant species alike through poaching taboos (Nhira and Fortman, 1992), at the forefront of the importance of community member connections to each other and to the land (Schoffeleers 1979), of low population densities ( a typical example is the response to increased human population in certain areas in pre-colonial societies that is met with a wave of migration to reduce the population on the source region, e.g the Luba-lunda dispersions and the Mfecane of the late 18th century) and ensure gender divisions. In the pre-colonial African societies, conservation measures were prompted by the environmental experience, economic needs and religious beliefs. This can be seen in the history of natural parks and wilderness, sacred grove traditions, totems, etc.

Historically Western African societies had a number of strategies put in place to prevent mismanagement of forest resources (Kwashirai, 2007). For instance, the reverence of a respected Yoruba deity associated with agriculture, food surplus and fertility served to caution the people from encroaching into deep forest or destroying vital forest endowments in a way that would affect humanity and the environment (Jones, 1946). Despite the fact that these practices have a deeper meaning and it was based on some cultural beliefs, they nonetheless shaped the environment and in a way introduce sustainability into the African environment (Kwashirai, 2007). The tenure system was at the core of most pre-colonial societies in Africa. Resources were managed on a common basis (community or ethnically), Land was owned by the people but vested in the King or Chief (Masona, 1987; MacLenzie, 1988; Beinart, 2000), likewise pastures, trees, wildlife and water belong to the whole community. The system ensured that members of the community comply to certain laws governing the use of allocated resources and this is enforced based on some taboos and superstitions these in essence bears strong conservation values (Beinart, 2000).

### Post-Colonial African Cities

The advent of colonialism on the African environment witnessed a departure from the existing norm though relics of the old nature were still visible in some societies especially in Eastern and Southern Africa (Binsbergen, 1979; Schoffeleers, 1979; MacKenzie, 1991; Beinart, 2000, Kwashirai, 2007). The appearance of the colonial masters on the environment came with legislations which in a way were strange to the natives. For example, Early game legislation established proprietorial rights to wild animals in relation to land ownership and introduced a licensing system which 'increasingly turned hunting into an elite recreation' (MacKenzie, 1991). Game laws were also passed for aesthetic and moral reasons, and the need to preserve flora and fauna for posterity (Masona, 1987). Also, early colonial legislation in Rhodesia was imported from the Cape of Good Hope, which in turn had been exported from Britain. British game legislation was itself based on the Magna Carta of 1215, itself based on Roman Common law which established that game was *res nullius*, i.e. the property of no one, not even the state (Farquharson, 1992).



Thus in the Magna Carta, game was held by the king "in his sovereign capacity in sacred trust for the people. Although the argument was that game in Africa during the pre-colonial era would have led to the extinction of animals (MacKenzie, 1988, 1991), this is not consistent with the available narratives on the on pre-colonial societies (Schoeffeleer, 1979, Nhira et al., 1992) that confirmed that the colonial 'conquistadors' met with great biodiversity in the ecosystem.

The industrial revolution marked a significant turn in human history. It created a repressive society within the African environment which led to a general increase in the cost of living, intensification of global trading, increase in gaps between the rich and the poor, etc. Industrialization brought about increase in the rate of energy consumption a key index in understanding the changing environment across African societies. Increase in energy consumption globally, led to the increase in the rate of exploitation and use of fossil fuels and other energy resources. Scattered across the face of Africa are large deposits of fossil fuels (Algeria, Libya, Nigeria, Cameroon, Ghana, etc). The exploitation of these resources unlocked the carbon stock that has been sequestered under the earth for ages. Industrial processes of the 19th and much of the 20th century wasted energy and polluted the atmosphere. Palls of smoke laden with carbon dioxide, nitrogen compounds, sulfur dioxide, and other pollutants hung over industrial cities and towns, blocking sunshine and creating dangerous smog. Acid rain damaged stone edifices (Onafeso and Olusola, 2018), vegetation, and surface water supplies. Massive amounts of useful gas were flamed off into the atmosphere as coal was turned into coke to fuel the burgeoning metallurgical industry. Later, oil refineries burned off volatiles regarded as useless byproducts. Meanwhile, forests across the country were cut indiscriminately, eliminating ecosystems that could have cleaned the air. Farmers burned forests to clear land for agriculture; wood left over from deforestation was burned on purpose or by forest fires. Gradually, however, people became more aware of the immediate health risks posed by industrial pollutants.

Aside the negativities from fossil fuel exploitation and consumption (pollution, ozone layer depletion, huge stock of non-degradable materials, communal clashes, loss of biodiversity, land fragmentation, etc), mineral discovery (Copper, Gold, Diamond, etc) has also been a short-term benefit to most traditional African societies with respect to sustainability in the long run. The cumulative effect of the industrial era on the African environment brought about a change in the climate. Africa in the industrial era has been identified to be one of those regions in the world that are vulnerable to the impacts of climate change (IPCC 2014; Niang, 2014 et al.). Since the colonial period, the African environment has been rapidly developing in terms of its population (World Bank, 2013). The unchecked increase in population growth across Africa has been the major cause of recent conflicts in some parts of the continent, leading to increase in the poverty rate across the whole continent an offshoot of malnutrition, mortality, epidemics and political upheavals. Apart from the socio-economic change being witnessed in the post colonial African societies, there is also the issue of climate change brought about as a result of industrialization (World Bank, 2004; Dell, Jones and Olken, 2012; Jones and Olken 2010). Climate change has led to a departure from the expectations in terms of weather and climate experienced during the pre-colonial era. Africa summer temperatures are expected to be on the increase at about 1.5°C until 2050 a clear departure from the baseline. Heat extremes, change in precipitation distribution are being observed across Africa (Comou, Robinson and Rahmstorf, 2013; Collins et al., 2013). A dipole pattern of wetting in tropical East Africa and drying in Southern Africa is expected in the nearest future.

Aridity and potential evapotranspiration an index of structural precipitation deficit is expected to increase especially across the Sudano-Sahelian Regions (Zomer et al., 2008; Fashae et al., 2017). This is an indication of increase in the spread of drought (Amogu et al., 2010). Sea level rise is also expected to increase marginally between 0.4m and 1.15m across the coast of West Africa and South-Eastern Africa (Fashae et al., 2011; Schellnhuber et al., 2014). By extension, the changes brought about as a result of climate change in industrial era is expected to bring about water scarcity especially in



terms of the demand for freshwater supplies, increase the rate of contamination of groundwater (MacDonald et al., 2004; Olusola et al., 2017), increase the rate of epidemics and re-emergence of infections of unknown origin (Patz et al., 2008), increase in the rate of flooding.

Threat to food production and sustainability is another aspect of the African sector that is expected to be severely affected by climate change (Lobell et al., 2011; Luo, 2011; Taylor et al., 2012; Rosenzweig et al., 2014). The changing landscape across the African environment is quite different from what was in existence during the pre-colonial cities. As much as industrialization gave the African societies a means to develop in terms of technology and other aspects, it brought about over dependence on natural resources in which about ten thousand years ago African societies have weaned themselves from more direct dependence on nature by securing more reliable and readily expandable sources of livelihood. With industrialization, peoples' dependence and reliance upon these resources has continued to increase.

### Conclusion

Managing African environment in the post industrial, urban and modernized world is not a difficult and complex task, given that the process of rapid growth and its effects on the African environment is homogenous in nature, the best practice now is to turn to indigenous knowledge. A paradigm shift in providing solutions to most environmental based issues must be at the front burner. Environmentalists now realize that a cursory look into traditional societies and their practices is expected to yield better result and proffer a yet comprehensive and an integrated solution-based approach. African societies has a lot to offer in tackling various environmental issues ranging from global warming, sea level rise, pollution, deforestation, desertification, food insecurity, etc. A major step in this approach will be to reduce unwholesome interest in material culture, unchecked thirst for building materials, insatiable taste, and lifestyle, modernity propellers in most western societies. If this is reduced, the burden on most developing world such as Africa is given a first-order reduction.

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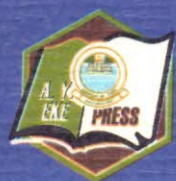
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