

## Home-Grown Technologies and Sustainable Development in Africa: A Diachronic Analysis of Contending Technologies in South-South Nigeria

---

Famous S. Eseduwo, PhD

*Political Science Department*

*Federal University, Otuoke, Bayelsa State Nigeria*

### Abstract

This paper attempts a dualistic analysis of the effects of the dwindling African home-grown technologies and the trendy western technologies on Africa's development, using aboriginal technologies in South-South Nigeria as the focal point of analysis. Did African cultural values stimulate the growth of indigenous technologies? Did western technologies stunt the growth of indigenous technologies in Africa? How the growth rate of home-grown technologies does affect sustainable development in Africa? The paper, therefore, specifically seeks: (a) the effect of African cultural values on the growth of home-grown technologies; (b) the impact of western technologies on the growth of African home-grown technologies; and (c) the effect of the growth rate of home-grown technologies on sustainable development in Africa. The Social Production and Reproduction Theory is employed as the theoretical framework of this paper as the theory is well-suited with its methodology i.e. the observation method through a blend of quantitative and qualitative methods. Essentially, the paper argues that without purposeful advancement of cultural consciousness and a strategic synchronization of African cultural values with emerging global technological trends, African home-grown technologies will remain diminutive and sustainable development in Africa will be elusive in a dynamic knowledge-driven World economy with super-imposing global cultural trappings.

**Keywords:** Home-Grown Technologies, Sustainable Development, Africa, Contending Technologies, Western Technologies and South-South Nigeria

### Background to the Study

Is African development question still a function of western colonialism and imperialism in Africa? If not, what then accounts for the unpleasant tale of Africa's underdevelopment after five decades of political independence in most African countries Cameroun (1960), Chad (1960), Cote d' Ivoire (1960), Ghana (1957), Madagascar (1960), Malawi (1964), Mali (1960), Mauritania (1960), Niger (1960), Nigeria (1960), Rwanda (1962), and so on? Why Africa still constitutes the 'Third World' i.e. a sub-region of less-developed nation-states? Espousing answers to the foregoing questions is quite an uphill task as Africa remains an arena of two contending cultural trappings. On one hand, Africa is ostensibly struggling to graduate from its primordial cells (traditional society) to a more refracted form (developed) society and on the other hand, Africa is still largely haunted by its own traditional ways. This underscores Africa's age-old catch-22 development quagmire as encapsulated in its prismatic status.

Two contending and deferring cultural values, therefore, appear discernible in the development literature of Africa viz: the downgraded aboriginal African cultural values and the prevailing adopted modern-technology-induced Western cultural values. This is prevalent in almost all African countries due to their colonial past and the attendant struggle apparently to achieve sustainable development amidst the two opposing cultural blocs. The forces behind the dwindling fortunes of Africans' original cultural values may alter reality. It is instructive from the analytical tools of classical Marxism that, in order to understand and explain a cultural text or practice, we must locate it in its moment of production, analyzing the historical conditions which produced it (Storey, 1994: 194). The survival and functioning of mankind towards continuous existence interact glibly with physiological and cultural values. This accentuates the interrelatedness of man's cultural values and his means for survival. An abrupt change, hence, on the means of a people's survival is likely to alter their existing cultural values and subject them to some unfamiliar cultural values with attendant new tools of labour. Predicated upon man's propensity for doubting new ways of life and problems of adaptability, the resultant effect of such alterations and subjection to more complex cultural orientations as well as labour sophistications as emerging preconditions for survival arguably constitute a lucid antithesis to sustainable development in Africa.

It is also an affront to the theoretical explanation that all cultures are equal and no culture is superior to the other. Culture is the way people do things. It has enormous influence on the lives of men, women and the youth, since the things we do transcend socio-economic and political boundaries. The way of life of a people is what makes meaning to them, while the way others do their things may at best constitute inquisitiveness. It is this curiosity that propels either the submission of one's culture to another for immediate pleasure and survival or the imitation of another's culture to the relegation of one's culture for material happiness and survival. The former is a survivalist instinct capable of driving one's culture to moribund and entrapped in a grotesque of borrowed robes with attendant crisis of identity, whilst the latter is a survival tactics that lacks originality and explanation (Eseduwo 2010:1). Niezen (2003:12) explains these trappings of earlier inter-cultural relations more instinctively in his classic of the Origins of Indigenism as thus:

At some point in the colonization of indigenous nations, a tremendous disparity between the technology and organizational powers of dominant and dominated peoples makes itself felt. It is astonishing, under the circumstances, how readily indigenous peoples have tended to borrow and adapt useful features of majority societies with little or no apparent disruption. But when social and technological powers are associated with direct assaults on indigenous identity and esteem through the inherently contradictory vehicles of racism and assimilation, indigenous societies become infected with cultural malaise a widespread sense of wounded pride, violated honour, and lack of self-esteem.

Man's struggle for development by effecting desired changes on the physical environment has witnessed two major modes of production, viz: the communal mode of production; and the capitalist mode of production. The former (communal) was a normative social productive system with simple tools of labour such as hoes, machetes, axes; and simple hunting and fishing

tools/traps such as spears, Dane guns, sticks, etc, for simple productive activities limited at the surface level of the earth and water, aimed at hunting/tilling/fishing for physical products of labour such as animals, crops, fruits, fish, and so on. These tools of labour were locally made out of home-grown technologies that are barren of scientific explanations and have little or no potentials for innovative thinking and attendant technological advancement. Thus, human productive activities under the communal social production system were vulnerable to alteration and inadvertently endangered for extinction. The family is the basic unit of production and production was basically at subsistence level i.e. for consumption needs and not in commercial quantity and attendant accumulation of surplus values. It was purely a service-for-service and good-for-good system of exchange (Trade-by-Barter).

Conversely, the latter (capitalist mode of production) is an advanced stage of social production system with sophisticated tools of labour such as cutting-edge equipment for oil drilling, machineries, high pressure pipelines, fossil fuel engines, oil extraction technologies, air planes, jet planes, automobiles, caterpillars, trucks, computer, the internet, cell phones, iPhones, iPads, iPods and so on, through an empirical western culture that has domineering potentials for innovative thinking, speed, quantity and continuous advancement. The empirical culture is conscious of measurable values and relies on different levels of measurement, viz: nominal, ordinal, interval and ratio. The application of these levels of measurement metamorphosed to wage labour with money as the medium of exchange which replaced feudal social production in Europe and later spreads to other parts of the World through trade and foreign rule (imperialism and colonialism), and most African countries were victims of the circumstance. The central characteristic of a capitalist mode of production is its overriding influence on weak and normative cultures and the ownership as well as control of the means of production of what is produced by a voiceless 'many' by a domineering 'few'.

As Nkrumah (1970:14) aptly remarks that, at the opening of the colonial period, Africans were passing through the highest stage of communalism. And that with the impact of imperialism and colonialism, communalist socio-economic patterns began to collapse as a result of the introduction of export crops such as cocoa, coffee, and so on. The economies of the colonies became interconnected with World capitalist markets. Capitalism, individualism, tendencies to privatize ownership and alteration of weak cultural values grew, and gradually normative social communalism disintegrated with the extinction of cultural values and the collective spirit declined. As aptly argued by scholars, Africa's greatest challenge is creativity and innovation founded on indigenous knowledge/resources (Ezeanya 2013:2; and Gbenda 2013:10). The capitalist production system which is characterized with mass production through socialization of labour and asocialization of the proceeds of labour (surplus value) has whittled down the African home-grown technologies to the detriment of Africa's sustainable development. Indigenous Knowledge, particularly in Africa has long been ignored and maligned by outsiders (Warren 1992: as quoted in Noyoo 2007:171). African governments have fallen prey to this derisive behaviour willy-nilly their heritage (Noyoo 2007:171). The survival of the hoi polloi in former colonies of the Occident (African States) who are victims of involuntary alienation from their cultural values and abandoned in the quagmire of capitalist-value-driven competitive world of science and technology to pursue with 'bare hands', the oscillating values for survival in modern life, therefore, is a tricky task.

The South-South Nigerians, as a people located within this category of prismatic societies with endangered rich cultural potentials, will they survive this dynamic knowledge-driven World with imposing global cultural trappings with the high rate of their eroding cultural values and home-grown technologies? Worse still, how can we mitigate the seeming unconsciousness brewing amongst Africans in this part of the World and the apparent lack of understanding of the implications of a people's oxidizing indigenous technologies and the survival of the younger generations in a world of cultural globalization and the dynamics of domineering western technologies? It is the foregoing worries that this paper interrogates.

### The Problem

Today, nothing we can originally produce out of our home-grown technologies that have high value and competitive advantage over others produced through foreign cultural technologies. Apart from the domineering western technologies, even within the enclaves of Nigerian cultural technologies, the South-South Nigeria seems to be least rated in indigenous productive technologies. Most strong economies of the World are consciously developing their science and technology along cultural lines. This explains the existing technological orthodoxies of occidental cultural extrapolations of the West i.e. countries of Europe and America; and the oriental cultural orientations of the Eastern countries like Japan, China and others. These two bossy cultural blocs of the West and East seemingly have far-reaching implications for the growth and development of cultures of normative values and superstition like ours in Africa.

Joseph Needham's monumental exploratory survey, *Science and Civilization in China*, has brought the Chinese tradition to the attention of educated people throughout the Occident and this has also steadily deepened the level of understanding, as new investigations are carried out in East Asia, Europe, and the United States of America (Shigeru, Swain and Eri, 1974: vii). This curiosity of investigations is value-laden and has cultural inclinations that propel original means of survival of present and future generations. It is argued in some quarters that South-South Nigerians are lazy but have penchant to live flamboyant lifestyles. This rhetoric of indolence and flamboyancy is seemingly rooted in our sole reliance on petro-resources for survival and the prevailing patterns of conspicuous consumption of the petro-wealth without corresponding contributions to the existing means of production of the wealth as a result of our inertia in the dynamics of culture-related technological advancements. As Thompson, Ellis and Wildavsky (1990:2), argued that "the viability of a way of life depends upon a mutually supportive relationship between a particular cultural bias and a particular pattern of social relations". The problem, therefore, is whether it is part of our culture to constitute some kind of reserved army? What is happening to our agrarian culture? What about our culture of traditional industry through cultural technologies and home-made instruments of labour? Can our youths today and future generations survive with the present cultural dilutions of trying to be western without empirical thinking and getting alienated from the cultural values of hard work, integrity and self-worth of our forefathers? It is against the above backdrop that this paper poses the following questions to guide our enquiry on Home-Grown Technologies and Sustainable Development in Africa: A Diachronic Analysis of Contending Technologies in South-South Nigeria:

- (i) Did African cultural values stimulate the growth of indigenous technologies?
- (ii) Did western technologies stunt the growth of indigenous technologies in Africa?
- (iii) How the growth rate of home-grown technologies does affect sustainable development in Africa?

#### Objectives of the Paper

Specifically, the paper seeks:

- (a) The effect of African cultural values on the growth of home-grown technologies;
- (b) The impact of western technologies on the growth of African home-grown technologies;
- (c) The effect of the growth rate of home-grown technologies on sustainable development in Africa.

This will be done within the context of the Nigerian Social Production and Reproduction theoretical perspective.

#### Theoretical Framework

The significance of this paper transcends theoretical and practical boundaries. Theoretically, it offers an understanding of the implications of abandoning indigenous technologies for the curiosity of alien western technologies as a survivalist instinct. It also serves as a contribution from political science scholarship to the body of existing knowledge on the question of extinction of African home-grown technologies, arts and culture. And it will practically expose the symbiotic role of the state and the people in the revival, development and repositioning of indigenous technologies as potential revenue earners and veritable tools for sustainable development in South-South Nigeria and other African countries. This kind of awareness will further reawaken the required collective consciousness of Africans on our eroding cultural values and the need to reconstruct our aboriginal technologies along the lines of empirical thinking towards having a 'native science' for the understanding and explanation of our protracted development problems. It is through this kind of awareness that African home-grown technologies can be upgraded and integrated into a fast globalizing world economy.

#### Operationalizing Key Concepts/Phrases

The key concepts and/or phrases in this paper include: (i) Home-Grown Technologies, (ii) Sustainable Development, (iii) Africa, (iv) Contending Technologies (v) Western Technologies, (vi) South-South Nigeria. These concepts and/or phrases are subject to several meanings and interpretations and as such require clarification. We, therefore, turn to the operational definition of key words used in this paper.

(i) Home-grown Technologies: - In this study Home-grown or Indigenous Technologies refer to the home-made tools, products and values of South-South Nigerians through their own knowledge. The term indigenous, therefore, is used in this paper broader than ethnic and the central distinguishing element of tribal/non-tribal people that co-exist in a single state. It encompasses both the material and non-material tools of labour of South-South Nigerians from time immemorial, viz: (i) communal labour and trade by barter such as group farming, group fishing, group hunting, group construction of shelters, group canoe carving, group lumbering, and so on; (ii) home-made agricultural implements such as hoes, machetes, knives,



Dane guns/gun powders, hunting guns, arrows, traps, climbing ropes, climbing ladders, etc, and home-grown agricultural technologies such as production of tree crops e.g. oil palm, coconut, raffia palm, cocoa, cotton, bush mango, mango, soap and pomade-making, etc. And food crops such as yam, cassava, maize, cocoyam, sweet potato, sugar cane, plantain, groundnut, etc. Also livestock such as pigs, goats, sheep, dogs, cats, fowls, etc. And marine resources such as fisheries, shrimps, water snails, etc; (iii) Indigenous music/dance such as cultural dances (agene, ogele, awigiri), masquerade dance, etc. Indigenous musical instruments such as the talking drum, small drums, the proclaiming drum, the gong, hand piano, horns, wooden flutes, etc. Cultural sports such as wrestling, swimming, canoe racing, boat regatta, tug of war, etc. Home-made art works/crafts such as raffia works, ceramics works, bronze works, ivory works, potteries, wooden chairs/tables, cane-rope/stick chairs/tables, bamboo beds, mats, chairs/tables, wooden face masks; and textile works such as hides/skin fabrics, bamboo fabrics, raffia fabrics, cotton fabrics, etc. And indigenous dressing such as the wrapper tying, the wooden walking stick, the hat for men, the double wrapper and the head tie (the egele) for women; and (iv) Home-made fishing implements such as canoe, paddles (male/female), raffia-rope and bamboo fish traps/containers (ekou, egogo, igen, bomu, akere, ado, etc), and fishing technologies such as fishing screen (the fence technique), drag net, throwing net, floating net, stagnated netting, etc; and indigenous commerce such as intra/inter village/tribal trading through canoes/feeder roads, and so and so forth.

(ii) Sustainable Development: - In this article, Sustainable Development refers to a continuous growth that preserves human, material and natural resources for continuous development of future generations in terms of socio-economic and political conditions, viz: (i) evidence of structural human capacity building system with cultural bias; (ii) evidence of application of acquired scientific and technological knowledge towards improving indigenous technologies; (iii) evidence of structural system of employment self and/or institutional employments; (iv) evidence of established educational system for continuous orientation of home-grown technologies and cultural values; and (v) evidence of preservation of indigenous social security system.

(iii) Africa: - This refers to the continent made up of mostly black people. It consists of mostly less-developed countries in the World. For instance, Cameroun, Chad, Congo, Cote d' Ivoire, Ghana, Madagascar, Malawi, Mali, Mauritania, Niger, Nigeria, Rwanda, and so on.

(iv) Contending Technologies: - The phrase, Contending Technologies is used in this paper to depict the domineering forces of western technologies (technologies of developed countries) over the eroding home-grown or indigenous or aboriginal technologies of Africa. Thus, the words, home-grown, indigenous and aboriginal are used interchangeably as synonyms in this paper.

(v) Western Technologies: - In this paper, Western Technologies refer to the gamut of modern tools of labour and capitalist patterns of production and reproduction (wage labour), viz: (i) wage labour and monetized economy such as office cleaners, messengers, security guards, clerks, cooks, gardeners, etc and the introduction of money as the prime medium of exchange; (ii) advanced equipment for oil drilling, machineries, high pressure pipelines, fossil fuel engines, oil

extraction technologies, air planes, jet planes, automobiles, caterpillars, trucks, computer, the internet, cell phones, iPhones, iPods, industrialization of crude oil and natural gas; (iii) foreign music/films/instruments of music/consumer durables such as changers, stereo sets, amplifiers, radio/tape recorders, Television Sets, computers, VCD/DVD/LCD/MP3/MP4, guitars, keyboards, wind instruments, etc. and western crafts/textiles such as metal works, glass works, ceramic wares, fabrics, upholstery chairs, etc; (iv) western fishing implements/technologies such as fishing trawlers, nylon nets, hooks, refrigerators, etc; and farming tools/technologies such as tractors, caterpillars, fertilizers, cassava processing machines, flour mills, rice mills, etc.

(vi) South-South Nigeria: - This refers to the ethnic nationalities in the six littoral and major oil-producing states of Nigeria, viz: Akwa-Ibom, Bayelsa, Cross-River, Delta, Edo and Rivers States. Some of the major ethnic nationalities in South-South Nigeria include: Ijaw, Ibibio, Efik, Anam, Urhobo, Isoko, Itsekiri, Kwale, Ikwerre, Ogoni, and so on. These ethnic nationalities also constitute the aborigines of the famous oil-rich Niger Delta region of Nigeria. The South-South Nigeria, therefore, is a geopolitical zone comprising six oil-producing states and having over nine ethnic nationalities sharing similar cultural affinities and attendant home-grown technologies.

#### Theorizing the Discourse

According to the materialist view of history, the ultimately determining element in history is the production and reproduction of real life (Marx and Engels, 1890). This paper, therefore, employs the Social Production and Reproduction Theory (Social Economic Theory in Marxist terminology) as its theoretical framework of analysis to assess the Home-grown and Western Technologies in South-South Nigeria in relation to Sustainable Development in Africa. The thrust of this theory as a tool of analysis in this article is predicated upon the ingenuity of Marx's in-depth analysis of historical materialism. Jameson (1981:17) exemplifies this in his locus classicus appreciation of Marxism as thus:

The political perspective is the absolute horizon of all reading and all interpretation. If the insistence on politics is one defining feature of the Marxist approach to popular culture, another is the insistence that the text and practices of culture can truly be analyzed and understood only in their historical conditions of production, and in some versions, the changing conditions of their consumption and reception.

Some of the main tenets of the Social Production and Reproduction Theory as located in the cultural context include:

i. That, each significant moment of history is constructed around a particular 'mode of production', and each mode of production not only brings into being different ways to produce the necessities of life, but also produces different social relationships between the different classes, and different social institutions including cultural ones, argued Marx in his Preface and Introduction to the Critique of Political Economy (See Storey, 1994:193). Implicit in this analysis is that the way in which a society produces its means of existence i.e. its particular mode of production ultimately determines the political, social and cultural shape of the society and its possible future development.

- ii. That, in the social production of their existence, men enters into definite necessary relations, which are independent of their will, namely, relations of production corresponding to a determinate stage of development of their material forces of production. The totality of these relations of production constitutes the economic structure of society, the real foundation on which there arises a legal and political superstructure and to which their corresponding definite forms of social consciousness on the mode of production of material life conditions the social, political and intellectual life process in general (Marx 1967).
- iii. That, it is not the consciousness of men that determines their being, but on the contrary it is their social being that determines their consciousness (Marx 1967).
- iv. That, the fundamental concern of human beings, and perhaps of other living things, is survival and security. And that, for the human being to survive and have security he/she must produce and reproduce human needs, including the production and reproduction of the human kind.
- v. That, complete social production and reproduction of any value often entails political, economic, socio-cultural, environmental, religious, psychological, physical and technological factors and dimensions almost at the same time or sequentially. And that, what can be produced and reproduced at each time depends on a combination of the quality of labour power (physical strength, knowledge, skills and ethics), non-human and physical resources for production (tools, and objects for applying the tools) and interpersonal relations of production.
- vi. That, as long as there is disparity in technology, cultural values and natural resources in the capitalist production system, there is bound to be inequalities and attendant resistance. People rarely knowingly make choices against themselves or against their own interests. The more controversies the share of the proceeds of what is produced i.e. who gets what and who contribute what to the means of production (technology, natural resource and capital), the more the conflicts and violence within that entity, as well as the less the prospects of sustainable development (Ogban-Iyam 2005:15-16 and Eseduwo 2010:9-10).

From the foregoing main tenets of the Social Production and Reproduction Theory, the following propositions are imperative;

- (i) Consciously or unconsciously the 'first people' of South-South Nigeria have compromised their home-grown technologies including communal labour/trade by barter, arts/culture, artifacts, farming/fishing/hunting implements/tools in the process of their relationship with colonial masters who replaced the pre-colonial mode of production with an alien capitalist production system and attendant wage labour, as well as monetized economy. The survival and development of South-South Nigerians, therefore, is conditioned by western technologies and values.
- (ii) The development of indigenous technologies of South-South Nigerians is also conditioned by the nature of their reception of western technologies and cultural values.
- (iii) Western technologies with their capitalist underpinnings have produced spoils of modern life and at the same time truncated the growth of home-grown technologies, thereby subjecting indigenous people of South-South Nigeria to socioeconomic misfits in their fatherland and attendant development of underdevelopment in the geopolitical zone.



In the light of the above theoretical foundation and the attendant propositions, the paper argues that without purposeful advancement of cultural consciousness and a strategic synchronization of African cultural values with emerging global technological trends, African home-grown technologies will remain diminutive and sustainable development in Africa will be elusive in a dynamic knowledgedriven World economy with super-imposing global cultural trappings.

Thus, it is hereby hypothesized that:

- (i) If African cultural values stimulate the growth of home-grown technologies, sustainable development will be likely enhanced in Africa.
- (ii) If western technologies stunt the growth of aboriginal African technologies, sustainable development will not be likely enhanced in Africa.
- (iii) If the growth rate of indigenous technologies is slow, sustainable development will not be likely enhanced in Africa.

### Methodology

This paper employs the observation method through a blend of quantitative and qualitative methods. Thus, both primary and secondary data were collected through personal interviews and observation of relevant documents. A sample of 60 randomly selected respondents between the ages of 50 and 70 years, ten from each of the six states in South-South Nigeria. The judgmental sampling technique was used and at least three respondents per constituency were selected for face-to-face interviews from eighteen constituencies in South-South Nigeria. All to find out:

- (a) If their cultural values stimulate home-grown technologies;
- (b) if western technologies adversely affect the growth of home-grown technologies in their communities; and
- (c) if the growth rate of home-grown technologies affect sustainable development in their states. Relevant books, journals, newspapers, official documents, magazines, periodicals, the internet, and so on were also consulted.

Finally, the simple percentage method and tabular presentations were used to analyze both primary and secondary data collected for this study.

### Presentation and Discussion of Findings

In response to the questions earlier raised and in testing the hypotheses of this study, responses were obtained from the field. We now turn to the responses from the field and results of direct observations according to the units of empirical referents observed.

### African Cultural Values and the Growth of Home-grown Technologies

Inadvertently, the African cultural heritage negatively affects the growth of home-grown technologies. In the South-South Nigeria, it was observed from the field study that most African cultural values are oral in nature and this has serious adverse effect on the progression of home-grown technologies. Both the cultural values and indigenous technologies of the South-South Nigerian people lack proper scientific definitions and documentation on how they were done or arrived at. They remain constantly oral. The source of indigenous technologies in South-South Nigeria was largely based on tenacity and/or intuition, and as such, lacks empirical data to carry

out empirical test or verification. The regular statements obtained from the field work on the source of home-grown technologies were; 'this is how it has been done over the years'; and 'the artistry of the technology was sourced from a dream', and so on. This was confirmed by our special respondents when asked on when and how most indigenous technologies came about. Home-grown technologies, therefore, die with the owners of the ideas. This is in contrast with western technologies that stand the test of time and live beyond their originators due to their empirical potentials. It was also discovered that there is a great deal of stagnation amongst indigenous technologies in South-South Nigeria.

For instance, the domestic occupation of raffia-palm-tree tapping and production of local gin which was common in all the six littoral states of South-South Nigeria has not undergone any significant innovation for over ten decades. The same way our fore-fathers were doing it persists till date. This is also as a result of the empirical impotency of the indigenous technology involved. If raffia-palm-tree tapping and gin production was a western technology, it would have undergone several changes, and the 'illicit gin' so branded by the colonial masters would have been an international export-import earner. The colonial masters deliberately outlawed several products from competitive home-grown technologies in African countries under the disguise of lack of empirical potency which they were in a better position to accord such early creative explorations for Africans. This was a glibly missing link in the interaction between the western empirical culture and African normative culture due to the uncompromising stance of western imperialism and capitalism.

The duo western phenomena (imperialism and capitalism) are traditionally interested for profit maximization through global exploration of raw materials for secondary products, market outlets for secondary products/consumer durables, and above all, 'exploitation of ignorance' amongst mankind. The only education colonial masters were interested was the education for peace-building in the colonies through the instrumentalities of religion to allow exploration, exploitation and expropriation of natural resources, and not for indigenous technological and economic advancements. In the process, the oral and normative culture of Africans was unable to stimulate the advancement of home-grown technologies towards the development of an African productive force to compete with the phenomenally advancing western productive force of imperialist colonizers in the utilization of raw materials. This was the case in South-South Nigeria which has generated abysmal underdevelopment in the region over the years, amidst the ever flowing crude oil (black gold). Today, every aspect of human existence largely relies on oil and the Petrobusinesses, including how to farm and training of children. This is evident in Table 1.

**Table 1: Responses on Culture and Growth of Home-grown Technologies in South-South Nigeria**

1. S/NO	2. Variable	3. PERCEPTION							4. Total Respondents
		Prevalent Oral Cultural	Lack of Early Education	Lack of Funding	Cultural Renewal	Formal Training	Govt. Intervention	Don't Know	
1.	Why technologies in your community have no records?	50 (83%)	5 (8%)	4 (7%)	0 (0%)	0 (0%)	0 (0%)	1 (2%)	60
2.	Technologies in your community are not growing, why?	40 (67%)	13 (22%)	5 (8%)	0 (0%)	2 (3%)	0 (0%)	0 (0%)	60
3.	How can home-grown technologies be revived in your community?	0 (0%)	0 (0%)	0 (0%)	40 (67%)	8 (13)	12 (20%)	0 (0%)	60

Source: Field Work (2013)

Table 1 demonstrates the perception of sixty respondents from South-South Nigeria on the factors affecting the growth of their indigenous technologies. It is observed from the data that the most crucial factor is the oral culture of the people that left the origin and processes of home-grown technologies undocumented. Other fueling factors included lack of early education and funding. Thus, most home-grown technologies in South-South Nigeria remained uncultivated with fast-diminishing economic value and as such, inexorably reduced to mere local museum materials. Some of the stagnated and highly devaluing products of home-grown technologies which are the traditional articles of trade, arts/crafts, fishing/farming implements and musical instruments in South-South Nigeria are portrayed in Figure 1-20.

**Figure 1: Coiled Tobacco (Ike)**



Source: National Commission for Museums & Monuments, Abuja (2009).

Figure 1 portrays the more than 200-year old fashion of locally made tobacco in Boki, Ikom Cross River State of South-South Nigeria. It was produced of tobacco leaves after sun-dried and woven into a big coil. It was used for production of snuff and also served as a medium of exchange i.e. for payment of bride price in the pre-colonial era. Tobacco is still one of the requirements for payment of dowry in most ethnic nationalities in South-South Nigeria but ironically, the ike (coiled tobacco) produced out of home-grown technology has been replaced by the western cigarettes and snuff which are also produced from the same raw material (primary product) of African tobacco leaves through western technology. Today, the home-grown technology for production of cigarettes and snuff is going into extinction amongst South-South Nigerians but it is a profiting big business in the hands of multinational tobacco companies in spite of most national/international health institutions proclaiming 'cigarette smoking as dangerous to human health'.

Figure 2: Indigenous Fabric-Making in South-South Nigeria



Source: Port Harcourt Museum (2010)

Figure 2 shows a home-grown textile which was a product of indigenous technology by South-South Nigerians. Fabric-making was most common in Asaba, Delta State and in Kalabari communities in Rivers State, which was produced out of locally spun cotton by mostly women through hand-woven techniques. In Asaba, the locally-produced fabrics were called, 'Asaba Cloth' whilst the Kalibaris called theirs, Pelete Bite. It was reported that when the origin of the ingenuity of South-South Nigerians' home-grown technology of fabric-making was traced, the artistry was attributed to a legendary heroine named, Dada Nwakata who claimed that she got her inspiration from a dream (See National Commission for Museums & Monuments, Nigeria 2009:20). This underscores the oral nature and superstitious underpinnings of African cultures and the adverse effect on sustainable development in most African countries which Nigeria is not an exception. Again, today fabric-making is no longer in vogue amongst the indigenous people of South-South Nigeria but it is a money-spinning venture in Holland, Portugal, England, Germany, and other developed countries. Although, the Yorubas (Ijebu-Ode) in South-West Nigeria and the Igbos (Akwete Ndoki-Abia State) in South-East Nigeria are still producing indigenous fabrics like in some African countries such as Togo, Ghana, Senegal, and

so on. Nonetheless, African textiles are yet to compete favourably with western fabrics in terms of quality, quantity and economic value. For instance, the Hollandaise single (Onigbagi) remains the highest-rated cloth for payment of bride price in most South-South Nigerian ethnic nationalities. The six yards of it is currently sold at twenty thousand naira (N20,000.00 or about \$130 USD), whilst the same quantity of the highest quality of indigenous fabrics in Nigeria e.g. the adire of Ijebu-Ode, the akwa miri of Akwete Ndoki, and so on will not cost more than three thousand naira (N3,000.00 or about \$19 USD). Raffia products from indigenous technologies of South-South Nigerians suffered similar abandonment. Figure 3-4 portray some of such products.

Figure 3-4: Raffia Products from Home-grown Technologies in South-South Nigeria



Fig. 3: Basket Bag;  
*Source: Field Work (2013)*



Fig. 4: Basket Tray;  
*Source: Field Work (2013)*

Figure 3 portrays the Basket Bag (Okuma) mostly produced by the Epie-Attissa people of Bayelsa State. It was produced out of woven raffia through home-grown technology about 120 years ago (See National Commission for Museums & Monuments, Nigeria 2009:22). It was used for storage of personal effects such as jewelries, dried fish, and in some parts of South-South Nigeria it was used as clinical bag for disposal of umbilical cord of new born babies; whilst others used it to store personal effigies, charms, amulets, coins, and so on. Today, it has been replaced by western trinkets boxes on one hand and western polythene bags on the other hand. Its devaluation and attendant extinction, therefore, is largely caused by its stagnation in content, design and aesthetics over the years due to our oral culture. Also, Figure 4 depicts the Basket Tray (Teer Ayande) mostly produced by the Mbakon people of Cross River State. It is also a product of home-grown technology produced through woven raffia about 110 years ago (Also see National Commission for Museums & Monuments, Nigeria 2009:22). The Basket Tray like the Basket Bag suffered the same fate. It has been replaced by western stainless, ceramics and plastic trays. As earlier noted, most of our home-grown technologies, die with their inventors due to lack of proper documentation and scientific definition of procedures. It explains the normative nature of most African cultures. Ceramics works of indigenous people also suffered devaluation and extinction. See some of such products in Figures 5 and 6.



### Figure 5-6: Ceramics Products from Home-grown Technologies in South-South Nigeria



Fig. 5: Clay Pot.  
Source: Port Harcourt Museum (2012);



Fig. 6: Clay Dish.  
Source: P.H Museum (2012).

Figures 5 and 6 demonstrate some of the age-old ceramics products made from aboriginal technology in South-South Nigeria before the advent of the Portuguese and British colonialists. The Clay Pot (Uwawa) was predominately produced by the Bini people of Edo State about 150 years ago, whilst the Clay Dish (Nshu) was mostly produced by the Ogoja people of Cross River State about 110 years ago (See National Commission for Museums & Monuments, Nigeria 2009:24). These sets of ceramics also died with their inventors in South-South Nigeria. Today, western technology has taken over the production of ceramics works in different designs and large quantity and sold at very exorbitant cost to South-South Nigerians. Ceramics products like floor tiles are now produced in Spain, Italy, China, India, and so on and very dynamic in content, designs and size. In almost every six-month interval, new arrivals flood the African markets with new designs, names and prices. Conversely, the South-South ceramics products remain the same in content and design over the years. This also underscores their devaluation and going extinction. Home-grown fishing implements were not excluded. This is evident in Figure 7-9.

### Figure 7-9: Fishing Tools from Home-grown Technologies in South-South Nigeria



Fig. 7: Female & Male Paddles  
Source: Field Work (2013)



Fig.8: Fish Container



Fig.9: Fish Trap

The same applies to the fishing implements in Figures 7, 8 and 9 which are predominantly produced by the Ijaw people in Bayelsa, Rivers, Delta and Edo States about 150 years ago (See National Commission for Museums & Monuments, Nigeria 2009:28). The female and male canoe paddles (Yowei, Amara, etc.) were earlier used in ferrying white settlers with canoes before the advent of the outboard engines that advanced from Archimedes Yamaha with speedboats and passport 19 executive boats. However, the canoes and paddles remain the same in content and design. Apart from the canoe paddles, the Fish Container (Akere, Abo-azu, etc.) and the Fish Trap (Igen, Kara, etc.) have been also replaced by western hooks, nylon net traps, and so on. South-South Nigerians have abandoned a great deal of their products of indigenous technology and cultural values in almost every sphere of life, including farm implements and musical instruments. This is evident in Figure 10-20.

Figure 10-13: Farm Implements from Home-grown Technologies in South-South Nigeria



Fig. 10: Small Hoe;

Source: *Field Work* (2013)



Fig. 11: Big Hoe;



Fig.13: Storage Calabash

Figure 14-17: Another Set of Farm Tools from Home-grown Technologies in South-South Nigeria



Fig.14: Drinking Calabash;



Fig.15: Tapping Knife;



Fig. 16: Climbing Rope;



Fig. 17: Calabash Container

Figure 18-20: Musical Instruments from Home-grown Technologies in South-South Nigeria



. 18: Thumb Piano



Fig.19: Wooden Gong



Fig.20: Ivory Flute

Source: National Commission for Museums & Monuments, Nigeria (2009)

Our normative culture has largely crippled the advancement of home-grown technologies and as such, almost all the homemade products in South-South Nigeria are going extinction. Having seen the debilitating effect of our own culture on the growth of indigenous technologies, we now turn to the effect of western technologies on the advancement of our home-grown technologies.

### Western Technologies and the Growth of Indigenous Technologies in South-South Nigeria

The preceding discourse on African Cultures and the growth of home-grown technologies was quite revealing on the impact of western technologies on indigenous technologies in South-South Nigeria. Nevertheless, there is need to examine the specific adverse effects. This we now turn to. The perception and assessment of the indigenous people of South-South Nigeria are articulated in Table 2-5.

Table 2: Responses on the Alteration of Communal Labour in South-South Nigeria

1. S / N O	2. VARIABLE	3. PERCEPTION/ASSESSMENT					4. TOTAL RESPOND ENTS
		HIGH	MODERATE	LOW	DON'T EXIST	DON'T KNOW	
		1	How would you assess the present extent of group farming, group hunting and group building of houses in your village?	0 (0%)	15 (25%)	40 (67%)	
2	How would you assess the rate office work alters the group life in your community?	50 (84%)	5 (8%)	3 (4%)	0 (0%)	2 (3%)	60
3	How would you assess the chances of reviving group life in your village?	5 (8%)	8 (13%)	40 (67%)	5 (8%)	2 (3%)	60

Source: *Field Work (2013)*

Table 2 shows the perception and assessment of the rate of alteration of the communal labour culture of South-South Nigerians by western wage-labour culture and the attendant introduction of capitalist economy with its paraphernalia i.e. advanced technology. 84% of respondents acceded to the fact that the rate office work alters the group-labour culture (service-for-service) in South-South Nigeria is 'high'. The data also confirmed that the communal culture of group farming, group hunting and group provision of shelters is 'low' and that the chances of reviving such cultural values is 'low', as 67% of respondents allayed fears for possible revival of the communal culture of South-South Nigerians.

**Table 3: Responses on the Advent of Petroleum Prospecting and Erosion of Indigenous Agricultural Implements/Technologies/Marine Resources in South-South Nigeria**

1.	2.	3.					4.
S/N O	VARIABLE	PERCEPTION/ASSESSMENT					TOTAL RESPONDENTS
		HIGH	MODERATE	LOW	DON'T EXIST	DON'T KNOW	
1.	How would you assess the rate of erosion of home-made agric tools, techniques and marine resources in your village?	40 (67%)	13 (22%)	5 (8%)	0 (0%)	2 (3%)	60
2.	How would you assess the rate crude oil business has eroded the agric activities in your community?	55 (92%)	3 (5%)	0 (0%)	0 (0%)	2 (3%)	60
3.	How would you assess the chances of reviving agric tools, techniques and marine resources in your village?	0 (0%)	5 (8%)	45 (75%)	0 (0%)	10 (17%)	60

Source: *Field Work (2013)*

**Table 4: Responses on the Advent of Foreign Music/Films/Instruments of Music/Dances/Dressing and the Erosion of Indigenous Ones in South-South Nigeria**

1.	2.	3.					4.
S/N O	VARIABLE	PERCEPTION/ASSESSMENT					TOTAL RESPONDENTS
		HIGH	MODERATE	LOW	DON'T EXIST	DON'T KNOW	
1.	How would you rate the extent of erosion of cultural music/Dance/Dressing in your village?	43 (72%)	13 (22%)	2 (3%)	0 (0%)	2 (3%)	60
2.	How would you assess the rate foreign music, instruments, dance and dressing altered indigenous ones in your community?	47 (78%)	7 (12%)	3 (5%)	0 (0%)	3 (5%)	60
3.	How would you assess the chances of reviving indigenous music, instruments, dance and dressing in your village?	5 (8%)	7 (12%)	45 (75%)	0 (0%)	3 (5%)	60

Source: *Field Work (2013)*

**Table 5: Responses on the Advent of Western Fishing Implements/Technologies and the Erosion of Indigenous Ones in South-South Nigeria**

1. S/NO	2. VARIABLE	3. PERCEPTION/ASSESSMENT					4. TOTAL RESPONDEN TS
		HIGH	MODERATE	LOW	DON'T EXIST	DON'T KNOW	
1.	How would you rate the extent of erosion of home-made fishing tools and techniques in your village?	24 (40%)	30 (50%)	5 (8%)	0 (0%)	1 (2%)	60
2.	How would you assess the rate foreign fishing tools and techniques alter the home-made ones in your community?	21 (35%)	33 (55%)	4 (7%)	0 (0%)	2 (3%)	60
3.	How would you assess the chances of reviving home-made fishing tools and techniques in your village?	5 (21%)	12 (50%)	5 (21%)	0 (0%)	2 (8%)	60

*Source: Field Work (2013)*

Tables 3, 4 and 5 show the data collected from the 60 respondents drawn from our universe of study South-South Nigeria. It is observed that most indigenous technologies and cultural values of South-South Nigerians were altered by British imperialism and attendant introduction of capitalist mode of production to replace the communal mode of production. When probed further it was revealed that the following reasons are responsible for the erosion of indigenous values; (i) inferiority of home-made tools of labour and technologies to Western tools of labour/technologies; (ii) lack of corresponding scientific and technological knowledge on the part of indigenous people; (iii) failure to make a paradigm shift in indigenous technologies; (iv) lack of empirical thinking; (v) failure to update cultural values; (vi) failure to synchronize indigenous technologies with modern technologies. The implication of enculturation of the South-South people of Nigeria is quite alarming. This we now turn to.

**The Alteration of Home-Grown Technologies and Sustainable Development in Africa**  
 According to the Social Production and Reproduction Theory, the way in which a society produces its means of existence i.e. its particular mode of production ultimately determines the political, social and cultural shape of the society and its possible future development. How the alteration of indigenous technologies does affect sustainable development in South-South Nigeria? Table 6 provides the answer.



**Table 6: Responses on Effects of Erosion of Indigenous Technologies in South-South Nigeria**

1. S/ N O	2. VARIABLE	3. PERCEPTION/ASSESSMENT					4. TOTAL RESPON DENTS
		HIGH	MODERATE	LOW	DON'T EXIST	DON'T KNOW	
1.	How would you assess the rate of wage labour unemployment of youths in your village?	55 (92%)	3 (5%)	0 (0%)	0 (0%)	2 (3%)	60
2.	How would you assess the rate of self - employment of youths in your community?	0 (0%)	10 (17%)	46 (76%)	0 (0%)	4 (7%)	60
3.	How would you assess the chances of remedying the rate of unemployment in your village?	0 (0%)	10 (17%)	29 (48%)	0 (0.0%)	21 (35%)	60

Source: Field Work (2013)

The resultant effect of alteration of home-grown technologies of South-South people of Nigeria as shown in table 6 is the high rate of unemployment in the area and attendant low rate of self-employment amongst the youth. It is inferential that, it was the high rate of unemployed youths that formed the reserved army and attendant escalation of militant activities such as hostage-taking, kidnapping, and insurgency in South-South Nigeria before the federal government amnesty programme. This is evident in Table 7.

**Table 7: State-by-State Distribution of Unemployment Rates in South-South Nigeria**

S/No	State	Population	Employed Labour Force	Unemployed Population	Unemployed Rate	Unemployed Percentage (%)
1.	Edo	2,172,005	680,030	56,030	7.6	35.7
2.	Delta	2,590,491	830,956	64,824	7.2	27.2
3.	Rivers	4,309,557	1,223,425	176,214	12.6	25.5
4.	Bayelsa	1,704,575	335,433	38,235	11.2	23.9
5.	Akwa-Ibom	2,409,613	751,069	76,021	9.2	18.2
6.	Cross River	1,911,297	599,393	50,534	7.8	18.2

Source: Adapted from National Population Commission (2011); and National Bureau of Statistics (2012)

Table 7 confirms the responses from the South-South Nigerians on the effect of alteration of indigenous technologies as in Table 6, that the advent of western wage labour and attendant monetized economy instigated high rate of unemployment and low rate of self-employment in the region. The resultant effect of this is the creation of endemic circles of poverty in South-South Nigeria in the midst of 'plenty' i.e. poverty in the midst of the ever-flowing crude oil. This is evident in Table 8.

Table 8: Poverty Profile in South-South Nigeria

State	Very Poor	Poor	Moderate	Fairly Rich	Rich	Total
Akwa-Ibom	14.0%	36.4%	43.3%	4.5%	1.8%	100%
Bayelsa	32.6%	35.0%	28.6%	1.7%	2.1%	100%
Cross River	17.0%	52.7%	26.0%	3.7%	0.7%	100%
Delta	13.6%	43.5%	36.2%	6.0%	0.7%	100%
Edo	3.9%	29.8%	59.1%	6.1%	1.1%	100%
Rivers	12.0%	45.9%	33.9%	6.2%	1.9%	100%
<b>Total</b>	<b>13.6%</b>	<b>40.6%</b>	<b>39.2%</b>	<b>5.2%</b>	<b>1.4%</b>	<b>100%</b>

Source: Adapted from National Bureau of Statistics, Nigeria (2012); and Field Study (2013)

Table 8 clearly shows the poverty profile of the oil-rich South-South Nigeria. It is ironical that the South-South Nigeria that feeds not only the other five geopolitical zones in Nigeria, but also the developed West through Petrobusinesses, is amongst the poorest regions in Nigeria with approximately 14% very poor households and 41% poor households as against 5% fairly rich and 1% rich households. The existing social production and reproduction system that altered the indigenous communal production system is yet to create enough employment and attendant wealth in South-South Nigeria.

Apart from the high rate of unemployment in South-South Nigeria, other determinants of sustainable development were measured and the results are also shocking. These include:

- (i) High rate of environmental degradation caused by petroleum prospecting activities.
- (ii) Abysmally low rate of gross domestic products.
- (iii) Terribly low rate of indigenous investments and savings, as the only industry in the region is 'politics' and political office holders are only busy patronizing consumer durables/building materials from the western World other than investing and saving.
- (iv) High rate of insecurity of life and property, as several cases of kidnapping and killings are still going on. Most recently, twelve policemen were killed in the creeks of Southern Ijaw LGA, Bayelsa State (Also see Batengi 2013:9-10).
- (v) High level of illiteracy still permeates.
- (vi) Low level of infrastructural facilities, e.g. inter/intra-state roads, health centres, hospitals, medical centres, schools, colleges and higher institutions, and so on are under deplorable state e.g. the only federal road (East-West Road), linking the six South-South states and the rest parts of the country is in a state of despair. The on-going dualisation work for over three years is piecemeal.
- (vii) Low level of per capita income and growth, and
- (viii) High rate of dependency on Petro-businesses for survival. These include, scholarships for indigenous students, provision of cassava sticks, plantain suckers, yam seeds, pineapple suckers, oil palm seedlings, and so on for local farmers, and so on, by oil companies. This is evident in Table 9.

**Table 9:**  
**Distribution of Food Crops (Seedlings/Suckers by Shell Community Dev. Projects in South-South Nigeria**

<b>Year</b>	<b>Yam Seed Yams</b>	<b>Pineapple Suckers</b>	<b>Plantain Suckers</b>	<b>Oil Palm Seedlings</b>
1984	148,772	28,703	4,741	3,493
1985	171,247	104,143	9,659	—
1986	224,377	131,140	6,020	4,400
1987	64,135	101,475	21,852	2,427
<b>Totals</b>	<b>608,531</b>	<b>365,461</b>	<b>42,272</b>	<b>10,320</b>

Source: Shell Petroleum Development Company (2001)

South-South Nigeria, when measured against the foregoing indexes, recorded very low level of development not to talk of achieving sustainable development. While the indigenous people became carried away with the spoils of western technologies and rely on the West for everything, the West continues to exploit the weak cultures and ignorance of the South-South people through petroleum business and inevitably develop underdevelopment in the area from generation to generation.

#### Conclusions and Recommendations

Based on the findings so far as represented in tables and figures above, the paper infers that:

- (i) The normative nature of African cultures is responsible for the conscious and/or unconscious compromise by the South-South Nigerians of their cultural values and indigenous technologies including communal labour and home-grown instruments of labour as a precondition to survive in their new relationship with the western empirical culture and attendant capitalist mode of production with advanced technologies and highly monetized economy. Thus, African cultural values did not in any way stimulate the growth of indigenous technologies and this impedes sustainable development in South-South Nigeria in particular and Africa, generally.
- (ii) The dynamic nature of products of western technologies and their attendant growing sophistication largely devalue products of home-grown technologies of South-South Nigerians which are lethargic in nature, and as such, stunting the growth of aboriginal technologies and sustainable development in Africa
- (iii) The stunted growth of home-grown technologies has produced an unfortunate chain of unemployment, absolute dependency on wage labour, political appointment and Petro-economy for survival. This has reproduced wide-spread poverty and attendant negative cultural orientations (enculturation) with resultant increase in social vices and financial crime rate such as militancy, oil pipeline vandalism, illegal oil bunkering, environmental degradation, corruption in public offices, looting of local and state treasuries, kidnapping, armed robbery, and so on. All the above poverty-induced anti-social behaviors and financial crimes constitute an archetypical antithesis to Africa's sustainable development.

The World therefore, operates in the form of Osmosis whereby stronger cultures draw weaker cultures through their semi-permeable membranes and subject such weak cultures at the dictates of the domineering ones for survival. As rightly explained in the theory of Social Production and Reproduction, the text and practices of culture can truly be analyzed and understood only in their historical conditions of production, and in some versions, the changing conditions of their consumption and reception. And the way in which a society produces its means of existence i.e. its particular mode of production ultimately determines the political, social and cultural shape of the society and its possible future development. Thus, the capitalist mode of production introduced in African colonies by colonialists continuously produces a social production system that reproduces questions without providing the corresponding answers. Impliedly, expatriates of multinational oil companies that suffer kidnapping/hostage-taking in the oil-rich South-South Nigeria are living with their own evils.

In sum, it is hereby argued that without purposeful advancement of cultural consciousness and a strategic synchronization of African cultural values with emerging global technological trends, African home-grown technologies will remain diminutive and sustainable development in Africa will be elusive in a dynamic knowledgedriven World economy with super-imposing global cultural trappings.

For indigenous technologies to trigger sustainable development in South-South Nigeria and Africa at large, therefore, a number of deliberate efforts are to be made by indigenous people and governments at all levels in Africa. These include:

- (i) Restoration and upgrading of indigenous cultural values of hard-work and integrity.
- (ii) Invigoration of traditional virtues of self-employment to reinforce industry and creative thinking.
- (iii) Revival of the communal labour culture as the World is cultivating a global labour culture and encouraging group research and team dynamics.
- (iv) Propagation of indigenous cultural values beyond the shores of Nigeria and Africa towards creating the required curiosity, standardization and revaluation of products of home-grown technologies in the global arena of cultural subjugation through superior science and technologies.
- (v) Chart a new course for cultural consciousness in pursuit of truth, dignity, knowledge and justice as fundamentals for identity and genuine survival.
- (vi) Governments should deliberately cultivate indigenous technologies by funding and promoting the production and distribution of products of home-grown technologies as major sources of 'independent export earnings' other than relying on the 'dependent export earnings' from crude oil.
- (vii) Premeditated development of an 'African Science' with cultural undercurrent to stimulate a home-grown sustainable development in South-South Nigeria and other African countries with similar history and underlying forces of production.

## References

- Batengi, A. U. (2013), "An Assessment of Leadership, as an Instrument of National Development", A Paper Presented at the International Social and Management Research Conference, Kaduna State University, Kaduna Nigeria
- Eseduwo, F. S. (2010), "Western Technologies, Indigenous Cultural Values and Sustainable Youth Development in Bayelsa State" A Paper Presented at the 2010 Cultural Day of the National Union of Bayelsa State Students (NUBSS), University of Ibadan at the Institute of African Studies, University of Ibadan, August 28.
- Ezeanya, C. (2013), "Africa's Development Agenda in Post-MDGs After 2015, Then What? A Paper Presented at the Africa Meeting Organized by the UNDP in Johannesburg, South Africa, February. [www.yahoo.com](http://www.yahoo.com), (Retrieved April 5, 2013).
- Gbenda, J.S. (2013), "Tapping the Indigenous Knowledge Systems for Sustainable Development in Nigeria", [www.thembosdev.com/publications.htm](http://www.thembosdev.com/publications.htm), (Retrieved April 5, 2013).
- Jameson, F. (1981), "The Political Unconscious", London: Methuen.
- Kerlinger, F. N. (1964), "Foundations of Behavioral Research" (Second Edition): New York: University Press.
- Marx K. & Engels A. (1890), "Preface and Introduction to A Critique of Political Economy", Perkin: Foreign Language Press.
- Marx, K. (1967), Capital, New York: International Publishers
- Marx K. & Engels A. (1970), "The German Ideology", London: Lawrence & Wishart.
- Meredith, M. (2005), "The State of Africa: A History of Fifty Years of Independence, London: Free Press
- National Bureau of Statistics, Nigeria (2010), "Nigeria Poverty Profile 2010", [www.google.com](http://www.google.com), (Retrieved April 12, 2013).
- National Commission for Museums and Monuments, Nigeria (2009), "Life in the Niger Delta", Abuja: A Publication of the National Commission for Museums and Monuments.
- National Institute of Cultural Orientation, Nigeria (2009), "The Need to Return to our Core Cultural Values", NICO News Bulletin, Vol.5 No.1.
- National Museum, Port Harcourt (2010) "Exhibition Guide", Port Harcourt: National Museum.
- National Population Commission, Nigeria (2011), "Unemployment Rates by States", In Daniel, A.D. (eds.), "Youth Employment as a Major Obstacle to Sustainable Development in Nigeria", The Social Science & Law Journal of Policy Review and Development Strategies, Vol.3, No.2, pp.50-57.
- Niezen, R. (2003), "The Origins of Indigenism: Human Rights and the Politics of Identity. London: University of California Press, Ltd.
- Nkrumah, K. (1970), "Class Struggle in Africa", London: Panaf Books Limited.
- Noyoo, N. (2007), "Indigenous Knowledge Systems and their Relevance for Sustainable Development: A Case of Southern Africa", In Boon and Hens (eds.), Indigenous Knowledge Systems and Sustainable Development: Relevance for Africa, Tribes & Tribals, Special Vol.1, pp.167-172.
- Ogban-Iyam, O. (2005), 'Social Production and Reproduction, Societal Conflicts and the Challenge of Democracy in Nigeria'. Journal of Political Economy. Department Of Political Science, University of Nigeria, Nsukka, Vol.1, No.1.



- Rosaldo, R. (1989), "Culture and Truth: The Remaking of Social Analysis", Boston: Beacon Press.
- Shell Petroleum Development Company (2001), "Community Development", Lagos: A Publication of the Shell Petroleum Development Company of Nigeria Limited.
- Shigeru, Swain and Eri, (1974), "Science and Society in Modern Japan: Selected Historical Sources", Cambridge: The MIT Press.
- Storey, J. (1994), "Cultural Theory and Popular Culture", New York: Harvester Whearshaf.
- Thompson, E. & Wildavsky (1990), "Cultural Theory", San Francisco: Westview Press.
- Warren, M. W. (1992), "Indigenous Knowledge, Biodiversity, Conservation and Development", [www.google.com](http://www.google.com), (Retrieved April 5, 2013).
- Winters B. & Yusuf A. (2007), "Dancing with Giants: China, India, and the Global Economy". Singapore: The World Bank and the Institute of Policy Studies