



ISSN 2278 – 0211 (Online)

Rural Information Centers as Gateways for Agricultural Development and National Transformation in Nigeria: A Theoretical Framework

Kamaluddeen Isa El – Kalash

Librarian, College Library, Federal College of Education, Kontagara, Niger State, Nigeria

Dr. Comfort U. Uzoigwe

Centre Librarian, National Open University of Nigeria, Enugu Study Centre, Nigeria

Samaila Baba Mohammed

College Librarian, Federal College of Education, Kontagara, Niger State, Nigeria

Abstract:

As a country that is endowed with ample natural and human resources, Nigeria has the potential of being Africa's most vibrant economy and an active player within the global terrain. Having an expanse of 98 million hectares of land of which about 74 million hectares is arable, agriculture happens to be one of the major source of its national wealth after oil. Yet, it cultivates only 40% of the available farmland that abound and places more emphasis on oil. With the current tumble of global crude oil prices as a result of the oil supply glut however, the future of its economy remains fragile. Since information is a basic prerequisite for development and information centers are the strongholds for attaining coherent and adequate information, the establishment and adequate utilization of rural information centers that would boost the agricultural sector and facilitate a healthy national transformation remains paramount. As such, the premise of this paper is to showcase how rural Information centers can serve as pathways for Agricultural Development and National Transformation in Nigeria. To achieve this, related literature on the concept of Rural Information Centers (RIC's), Agricultural Development and National Transformation were explored. More so, the emergence of Rural Information Centers (RIC's), components of Rural Information Service, and the prospects of establishing adequate rural information centers that would serve the rural agrarian communities in Nigeria amongst others were highlighted. To this end, the paper suggested a blueprint on how to leapfrog into the information paradigm so as to foster a robust agricultural output for national transformation in Nigeria.

Keywords: Rural information centers, agricultural development, national transformation, Nigeria

1. Introduction

Nigeria has the largest economy in Africa and is classified as an emerging market owing to its rich reserves of natural resources, well-developed financial and communications sectors with petroleum as a major product that plays a significant role in the economy of the country. More so, manufactured products like leather, textiles, plastics and processed food enhance the economy of the country (www.africaranking.com2015) and its agricultural sector is one that employs almost sixty percent of its inhabitants. Having cocoa, sugar cane, yams, maize, palm oil, groundnuts, coconuts, citrus fruits, pearl millet, and cassava as its major agricultural products with multiple vegetation zones, surface water, plentiful rain, underground water resources and moderate climatic extremes that paves way for the production of diverse food and cash crops(www.mapsofworld.com), the country is one that is certainly blessed.

While the revenues made from oil provide the largest source of income for the country, its overly-dependence on its oil sector has truncated the accelerated growth of other sectors of the economy despite their potentialities of sustaining the economy i.e. our palm oil production and coconut processing are in decline (www.unicef.org).

Nigeria happens to have much prospects for sustained growth considering some key non-oil sector areas of agriculture, information and communication technology, trade and services. As such, the increase in the contribution of the agricultural sector would certainly heighten the country's positive outlook because exportation of primary products within the agricultural circle would certainly aid the country in becoming more industrialized; thereby providing additional opportunities for the informal sector to progressively move into the formal economy, thereby making growth more inclusive and offering a high potential for job creation, increased income and poverty reduction.

Agriculture – particularly crop production – trade and services continue to be the main drivers of non-oil sector growth as there appears to be prospects for strong economic growth in the expected positive outcomes from the Agricultural Transformation Agenda. Agriculture, which is largely informal, employs about 70% of the labor force, a large portion of which is poor. Adding value to

agriculture tradable will create more jobs through its upstream and downstream integration with other sectors of the economy, increase export revenues, boost income of the poor and reduce poverty incidence (<http://www.nigeriaembassyusa.org>)

In developing countries such as Nigeria however, rural farmers account for the greater part of the population. Governments of developing countries have a major responsibility of ensuring that there is adequate rural development in their various communities and local governments which would lead to effective and efficient agricultural systems that will not only supply food and animal protein but also foster the utilization of natural resources in a sustainable manner (CGIAR, 1995). When the rural farmers lack access to knowledge and information that would help them achieve maximum agricultural yield, they are not only grope in the dark but are driven to the urban centers in search of formal employment, as the only option for survival (Munyua, 2000).

Blait (1996) pointed out that the least expensive input for improved rural agricultural development is adequate access to knowledge and information in areas of new agricultural technologies, early warning systems (drought, pests, diseases etc.), improved seedlings, fertilizer, credit, market prices etc. Corroborating the above assertion, Aina (2007) pointed out that farmers would benefit from global information, if information centers, are cited in rural areas complete with all information and communication gadgets Sadly, there have been short-comings of traditional print and library based methods of providing such agricultural information to rural farmers who are generally illiterate and relatively remote from formal sources of information e.g. Information centers, extension stations, libraries (Van and Fortier, 2000).

1.1. The Concept of Agricultural Development

Fundamentally, development implies a noticeable movement out of a perceived stagnation. Such a movement could be backward (negative) or forward (positive) development. It is an ongoing and all-encompassing process not specific to a particular region and race, and hence the content of development is entwined with 'human empowerment'.

According to Bapir, (2011) in El-Kalash and Ahmed (2014), the concept of development has been a contested and broad-brush term that has injected different meanings into the mind of the observer. It is such an all-encompassing term that covers wide range aspects and observers in different disciplines have problematized the concept to the extent that disagreement is more than agreement as what development 'means' and how it should be 'measured' in reality.

However, agricultural development depends on several interdependent components that involves a process - a series of actions and decisions – that improves the situation of the agricultural sector. Hence, infrastructure, economic development, services and policy are crucial. First, adequate infrastructure is needed to support agricultural activity and community life. Second, it requires a healthy economical atmosphere to enable it flourish. Third, policy settings can help position agricultural development in an economically competitive, socially just, and environmentally responsible atmosphere. Indeed, investment in infrastructure or major business development such as irrigation development, transport infrastructure, adequate and relevant information provision and industrial development have transformed some local economies.

1.2. The Role of Agriculture in Nigeria's Economy

It is a truism that the fundamental role that agriculture has played in the development of Nigeria's economy cannot be overestimated. So many writers have written quite a number of literature and researches on the subject as right from the infant stage of our independence as a nation, agriculture has been a source of contribution that helped induce industrial growth and a structural transformation of our economy. Sadly, our policy makers seem not to foresee the imperative of rural information centers as active drivers of the agricultural sector. This has resulted to a reduced growth in our agricultural productivity, increase in rural poverty, food insecurity and widespread environmental degradation.

Prior to the attainment of Nigeria's independence in 1960, agriculture was the most important sector of her economy, and accounted for more than 50% of GDP and more than 75% of export earnings. More so, the country was the world's leading exporter of palm oil until overtaken by Malaysia in 1971 and the fourth largest exporter of cocoa beans in 1990/91. Again, in 1990, Nigeria overtook Liberia as the largest rubber producer in Africa (<http://www.fao.org/ag/agp>). Consequently, with the rapid expansion of the petroleum industry, agricultural development was neglected, and the sector entered a relative decline. Source: FAOSTAT data 2005.

However, it appears that short-term benefits of the ongoing reforms in the agriculture sector through the Agriculture Transformation Agenda have started trickling in. Moreover, the rebased GDP also reveals the emergence of new non-oil sector activities driving growth. It is our belief that the newly elected president who has a pedigree of zero tolerance to corruption and his cabinet would drastically transform the agricultural sector to compelling standards.

1.3. Rural Information Centers (RIC's)

The term "rural" could be regarded as any place that lacks basic social amenities like schools, good roads, power supply, health facilities, portable drinking water etc. Iwe (2003) described the rural area in the Nigerian context as any area that is far from the urban city, a village, a hinterland with no good access roads, no pipe-borne water, no electricity, and no factories and industries while Mohammed (1996) in Ezekiel & Saleh (2014) is of the opinion that in Nigeria, the rural environment is characterized by highly illiterate, petty traders, as well as subsistence farmers.

Ravallion, Chen, and Sangraula (2007) asserts that three, out of four poor people in developing countries—890 million people—lived in rural areas in 2002. Further, they explained that even with rapid urbanization, the developing world is expected to remain predominantly rural in most regions until about 2020, and the majority of the poor are projected to continue to live in rural areas until 2040.

Information is usually a message that is communicated by a communicator to a receiver. Davies (1976) defined information as any data that has been processed into a form that is meaningful to the recipient and is of real or perceived value in current or future decision. Sturges & Neill (1990) and Camble (1994) in Ezekiel & Saleh (2014) argues that lack of relevant and adequate information has impacted negatively on any development process.

However, the rural based information center is basically an information center that is provided for the survival and growth of the rural community. It is meant to cater for the rural dwellers who are usually occupational farmers as information required by such members of the community is usually expended on the available resources around them. The information service through which the RIC's are provided to communities is called Rural Information Service (RIS). Survival information that relate to agriculture, housing, health, political rights, legal issues and economic opportunities are communicated among the peoples of communities through such information centers.

Thus, rural information service could be said to be the provision of information about resources and services that can be used to improve the overall wellbeing of community members. Kempson, (1990) described community information service as those services that assists individuals or groups with daily problem solving.

1.4. The Emergence of Rural Information Centers (RIC's)

The idea of establishing rural information centers is not a new one. It dates back to the 18th century when the first attempt to improve access to information involved the collation and organization of all forms of recorded knowledge into what was then called community libraries. As time passed by, community information centers began surfacing. Their focus was on the selection, acquisition, organizing, storing and disseminating the information that was needed by the community that they served.

Consequently, the first examples of rural libraries as information centers were found in Africa in the 1960s. By that time, the information centers were initiated, funded and maintained by the development agencies that were working in conjunction with national or public libraries which were themselves, part of colonial legacies.

Basically, the rural information centers aim at supporting the development of literacy skills and supplementing the formal education provision in rural areas. Before their emergence, the focus of public libraries that are located within the confines of the rural setting was usually on children and young people. More so, the public libraries in such rural areas have elicited severe criticisms as a result of their emphasis on literacy to be a prerequisite for reaping the so many benefits being offered by them despite the fact that a vast majority of the inhabitants of the rural areas are farmers.

The available literature and research reports on the existing trends in the provision of community information services by public libraries in Nigeria shows that the provision of community information services in the country is nothing to write home about because they are haphazard and ineffective and have not contributed meaningfully to sustainable development. Sturges and Neill (1998), Alegbeleye (1998) and Matere (1998) advocated for advanced paradigm shifts in the provision of library and information services in Africa. By implication, the creation of less formal models of book oriented libraries is what is required for agricultural development to occur and recent developments shows that some of the barriers to attaining rural information centers are beginning to be tackled as the development of Nigeria's agricultural sector is tied to a more realistic and value oriented rural information centers.

1.5. Components of Rural Information Service

Rural information service is basically tailored towards analyzing and providing for the information needs of the rural people. Kempson (1990), asserts that the first stage in the establishment of a rural community information service is through analysis of the needs within the community. Though, temptation may likely make the initiators to jump-start into rendering actual services, resisting such temptation is quite important for a successful service requires spending a considerable amount of time and effort with the community members in order to ascertain the hierarchy of their information needs.

Further, Aliyu (2014) citing Kempson indicated that the nature of the information needed in rural areas varies among communities and in most cases, people meet their needs by talking to friends, neighbors and relatives which does not provide sufficient detail to enable the service to be planned and its needs to be supplemented by the collection of detailed local information. He suggested that collecting the detailed information requires-

- The community to be served - the community profile.
- The primary information providers in the community - the information providers profile.
- The information needs of the people of the community and the extent to which they are being met - the information needs profile.

In another vein, Reynnells, (2010) outlined some products and services of the rural information center of the National Agricultural Library that is under the United States Department of Agriculture as -

- Provides customized information products to specific inquiries, including assistance in economic revitalization issues; local government planning projects; rural health topics; funding sources; technical assistance programs; research studies; and other related issues.
- Processes a broad array of literature and funding source of information on such topics as: successful strategies, models, and case studies of community development projects; small business attraction, retention, and expansion; housing programs and services; tourism promotion and development; sustainable communities and energy programs; community water quality; health programs and services; and rural research.
- Provides Internet access to rural information, products, and services through the RIC web site and Web 2.0 media.

- Refers users to organizations or experts in the field who can provide additional information.
- Furnishes bibliographies, Rural Information Center Publication Series titles, and other RIC developed information products.

However, in their theoretical framework for Rural knowledge centers, Guntuku, et.al. (2011) offered the Process in evolution of a rural knowledge center as: needs assessment; mobilization; capacity building; installation and incubation; operations and monitoring; and evaluation. Trailing a similar pathway, Roling, Neils (1988), the evolution of rural knowledge center is a function of 7 C s, i.e., Connectivity, Content (Static and Dynamic), Context, Cash, Culture, Community and Communication. Ensuring the 7 Cs requires a process of Mobilization, Organization, Capacity Building, Technology Incubation, Technical Support, and System Management.

1.6. Perceived Obstacles to the Provision of Information Services to the Rural Areas for Agricultural Development in Nigeria

Information and knowledge are very vital in agricultural development of any community and where they are poorly disseminated as a result of certain constraints, the community's agricultural development becomes highly impeded (Obidike, 2011).

McAnany (1978) opines that for any community to function efficiently and productively, a basic minimum stock of usable information is essential. In other words, the absolute survival of a society largely depends on the generation, acquisition and transmission of relevant information. The fact that information is central to the solution of any society's economic, political and social problems, and should be regarded as a factor of production, cannot be contested. This is why community information should be viewed not only as a way to improve the quality of life of the individual, but also as a primary social concern (Baruchson-Arbib, et.al., 1996).

Unfortunately, the significant role of rural information centers in Nigeria has not been entrenched. To buttress this point, Ozowa (1995) asserts that farmers in Nigeria seldom feel the impact of agricultural innovation either because they have no access to such vital information or because it is poorly disseminated. The resultant effect of rural farmer's inability to access agricultural information certainly leads to a poor agricultural yield.

Obidike (2011) indicated these constraints as: lack of access roads for regular visits by extension officers, poor public relation of some extension staff, poor radio and television signals, non-availability of electricity supply in most rural areas, lack of funds to purchase newsletters, leaflets on agricultural information; illiteracy and inability of radio and television stations that would broadcast agricultural information programmes in native languages.

Similarly, Aina (2007) associated the following as the constraints with dissemination of agricultural information in Africa:

1. Inadequate financial power of farmers in Africa.
2. African farmers are illiterate. Majority of them cannot read or write in any language.
3. Farmers in Africa live in areas where there is lack of basic infrastructure, such as telephone, electricity, good road network, pipe borne water etc.
4. Few number of extension workers (the ratio of agricultural extension workers to farmers is low).
5. Poor radio and television reception signals in most village communities in Africa.

In a similar vein, studies conducted by Correa, et.al. (1997) and Obinya, et.al., (2009) listed the obstacles to the provision of information service to rural areas: dispersed population, poor transportation and communication systems, illiteracy, poor financial resources, language barriers, poverty, lack of physical infrastructure, inappropriateness in library collection and services and low patronage.

1.7. Strengthening Agricultural Development through Rural Information Centers (RIC's)

There is no iota of doubt to state that as humans, our efforts towards attaining goals is largely dependent on the communication of information and the basic ingredients of effective communication is the provision of information. As such, the importance of information centers in agricultural development cannot be overemphasized. Information is one of the basic supportive input for any development program to occur and the rural populace in Nigeria suffers from low productivity in their agricultural output, resulting in economic retrogression which is mainly due to ignorance as a result of inadequate or total absence of information provision by information centers.

The provision and maintenance of rural information centers would certainly bring about timely and reliable information that would aid the rural farmers in knowing about what is happening in areas of improved seedlings, better methods of cultivation and fertilizer application, pest and weed control/eradication, new advances in livestock production and disease control etc. Munyua, (2000) asserts that where rural farmers are not faced with constraints in accessing agricultural information, traditional media such as rural radio, has been used in delivering agricultural messages to rural farmers. He went further to state that other ways of delivering these messages or information to the rural farmers include print, video, television, films, slides, pictures, drama, dance, folklore, group discussions, meetings, exhibitions and demonstrations.

Today, one of the most pressing needs of our nation is for the establishment of integrated and innovative community information centers that would enhance agricultural productivity as such centers would serve as a place where information can be organised, stored, accessed and utilized either manually or electronically. Such information can be made available to the farmers via extension workers, community libraries, state and local government agricultural agencies (ADP, ENADEP etc.), e-mail or the World Wide Web (www) in a telecentre (Telecommons Development Group, 2000) for technological innovation is critical in improving productivity as adequate and timely information is very important when it comes to agriculture.

Strengthening agricultural development via rural information centers can be attained by rural farmers via a variety of factors. Such factors as provided by Obidike (2011) includes:

- the provision of access roads, installation of radio and television antennas at strategic positions in for better radio and television signal receptions, mounting of electric transformers in villages/communities. airing of agricultural information programmes on radio between the hours of 2 and 3 pm; when the farmers would have come back from their farms, provision of community rural electrification, broadcasting agricultural information programmes on radio and television, building of community libraries in towns and villages, community libraries will no doubt help in procuring books, newsletters, leaflets on agricultural information which the literate farmers can borrow and read through.

The provision and utilization of rural information centers could go a long way in eradicating ignorance and enlightening the masses on how to achieve their economic, social, political, educational, and cultural objectives. Bordchart (1977) aptly underpins the essence of the need for rural information dissemination when he remarked that: None of the thousands of projects in the developing countries can be executed without the fundamental conditions of the establishment of a literate and numerate society, and a system for the continuous provision of exchange of ideas, thoughts and knowledge on which the society can feed and use with suitable modifications to construct its own cultural and industrial destiny.

However, it wouldn't be out of context to say that the provision of rural information centers for Nigeria's predominant rural agrarian communities will go a long way in exterminating poverty, ignorance and offer them enlightenment on how to achieve economic, social, educational, political and cultural objectives towards the development of the entire society. As such, the provision, adequate funding and utilization of libraries, information centers and other related agencies to the rural communities remains paramount so long as the development of the agricultural sector is required for a transformed Nigeria.

1.8. The Role of Rural Information Centers in Attaining National Transformation

The concept of transformation is one that has been diversely defined by different scholars of different orientations. It could be said to be a complete change from one situation to another; a total departure from an old order to a new one; or any profound and fundamental change that alters the very nature of something. That is why a transformational change is viewed to be both radical and sustainable. It will always require a complete obliteration of old walls and erection of new ones as something that is completely transformed can never go back to exactly to its prior state.

The Chambers 21st century dictionary (1999) offered one of its definitions of the word transformation to be an act or instance or the process of transforming or being transformed. The dictionary also defined the word transform as: to change in appearance, nature, function, etc., often completely and dramatically.

Similarly, the UNDP-LDP as cited by (Asobie, 2012) defines transformation is a fundamental shift in the deep orientation of a person, an organization, or a society, such that the world is seen in new ways and new actions and results become possible that were impossible prior to the transformation.

In this regard however, attaining transformation cannot be accidental as it requires a courageous and deliberate effort. Using the rural information centers to advance the frontiers of the agricultural sector will certainly bring about the stringent developmental and or transformational changes to the Nigerian nation because it calls for a performance of some activities that will facilitate the actualization of such dreams.

Since transformation calls for active and practical moves, the institutionalization, funding and maintenance of rural information centers goes beyond simple expressions or verbal pronouncement. Rather, it requires a number strategic planning in order to attain its purpose and in a bid to seamlessly attain a positive and concrete transformation however, one of the most critical steps to take is to create and curate the engine drive that other economies have utilized in making their agricultural sector more secure- information centers- as food security is one of the most important basics that a country can be proud of.

2. Recommendations

This paper strongly recommends the necessity of partnerships with some external agencies, locally reliable organizations and local communities for successful implementation of rural information centers.

It is recommended that developing nations like Nigeria should formulate policies for developing strategies to harness the potential of rural information centers and ICT's.

For such initiatives to be successful, there is a concrete need for the community to have a sense of ownership and participation right from the beginning.

More so, our governments at different levels should put hands in gloves to develop the telecommunications infrastructure so as to help the rural farmers' access agricultural information for optimal farm production. More so, they should

There is need for construction of good access roads and other infrastructural facilities that would enable easy access and habitable conditions for information specialists into the remote rural communities in the country.

Information centers in every rural community should be equipped with up to date information and communication gadgets, such as computers with internet access, local area and wide area networks, radio and television sets, telephones and fax machines, multimedia projectors, video and audio recorders (Griffith and Smith, 1994).

3. Conclusion

Summarily, this paper x-rayed the invaluable nature of information and its need to humanity with particular emphasis to the rural people regardless of their religious, geopolitical, socioeconomic, religious, educational and racial variations. This is because a 21st century Nigeria requires an effective utilization of information for agricultural development. The world has gone global and we cannot afford to be left behind.

As such, there is need for the establishment of rural information centers in the rural communities of Nigeria and such information centers must not be analogue in nature. They must be embedded with the latest telecommunication infrastructures. According to Griffith and Smith (1994), telecommunications infrastructure connects homes, businesses, schools, hospitals, libraries to each other and to vast array of electronic information resources.

4. References

- i. Aina, L.O. (2007). Globalisation and Small- Scale Farming in Africa: What role for Information Centers? World libraries and information congress 73rd IFLA General Conference and council. Durban, South Africa.
- ii. Alegbeleye, G.O (1998). Paradigm shifts in the provision of library and information services in Africa. Paper presented at the 64th IFLA General Conference held in Amsterdam, 16-21 August, 1998. p.4.
- iii. Aliyu, Y. (2014). Trends in the provision of community information services for sustainable development in Nigeria. *Journal of Information Resource Management (JIRM)*. A publication of Niger State chapter of Nigerian Library Association. Vol 4. Number 1, 73-80.
- iv. Asobie A. (2012), "Challenges of Governance: Need for Transformational Leadership", Presented at National Conference of ANAN, Held at Abuja, October 9.
- v. Barupchson-Arbib, S., Snuninth, S. and Yaari, E. (2006) community Information needs of the urban population in Israel. *LibriVol*. 56.
- vi. Balit, S.; Calvelo Rios, M. and Masias, L. (1996). Communication for development for Latin America: a regional experience. FAO, Rome Italy.
- vii. Bordchart, D.H. (1977), "Aspect of Library and Information Services in the Framework of Social Policy Planning." *International Library Review* (4) p.403.
- viii. Camble, E. (1996). Utilisation of information in rural development programmes by rural people in Borno state. *Annals of Borno*. 11/12, 85-95.
- ix. CGIAR (1995). Renewal of the CGIAR: Sustainable agriculture for food security in developing countries. Ministerial-level Meeting, Lucerne, Switzerland, CGIAR, Washington, D.C. USA. Pp. 133.
- x. Chambers 21st century dictionary (1999). Edinburgh: Chambers Harrap Publishers.
- xi. Davies, G.B. (1970). Information for the community information center: Concepts for analysis and planning. Information for the community. ALA Chicago 7 - 8.
- xii. El-Kalash, K. I. and Ahmed, M. A. (2014). ICT Education: A Panacea for Sustainable Integration and National Development in Nigeria. A Paper Presented at the 2014 National Conference of the Department of Educational Foundations, Enugu state University of Science and Technology with the Theme "Integrating Education for the Sustainable Culture of Peace and National Responsibility", Held From 15th -18th October, 2014.
- xiii. Ezekiel, I. and Saleh, A. G. (2014). Information need and seeking behavior of rural dwellers: Case study of Gulak in Madagali Local Government area of Adamawa State. *Journal of Information Resource Management (JIRM): Niger State Chapter of Nigerian Library Association*. Vol 4. Number 1.
- xiv. Griffith, J.B., & Smith, M.S. (1994). Information policy: The Information Superhighway and the National Information Infrastructure (NII). *Journal of Academic Librarianship*, 20 (2) 93-95.
- xv. Guntuku, D. et.al. (2011). A Theoretical Framework for Rural Knowledge Centers. *US-China Education Review A* 4. ISSN 1548-6613.
- xvi. <http://www.africaranking.com/largest-economies-in-africa/2/>. Accessed on the 23rd of March, 2015
- xvii. <http://www.mapsofworld.com/nigeria/facts.html>. Accessed on the 23rd of March, 2015
- xviii. <http://www.fao.org/ag/agp/AGPC/doc/Counprof/nigeria/nigeria.html>. Retrieved on the 26th March, 2015.
- xix. <http://www.dictionary.cambridge.org/>. Accessed on March 27, 2015.
- xx. Iwe, J.I. (2003). Libraries and information in sustainable rural development in Nigeria. *Information development*. 19 (3) 169-177.
- xxi. Kempson, E. (1990). Rural Community information services: Guidelines for researching needs, setting up services and evaluating performance. *IFLA Journal*, 16 (4), 429-439.
- xxii. Matare, E. (1998). Libraries and cultural priorities in Africa. *IFLA Journal*, 24 (1), 29-31.
- xxiii. McAnany, E. G. (1978). Communication with the rural poor in the Third World: Does information make a difference? Institute for Communication Research, Stanford University, Stanford, CA, USA.
- xxiv. Munyua, H. 2000. Information and Communication Technologies for Rural Development and Food Security: Lessons from Field Experiences in Developing Countries. <http://www.fao.org/sd/CDdirect/CDre0055b.htm>.
- xxv. Obidike, N.A. (2011). Rural Farmers' Problems Accessing Agricultural Information: A Case Study of Nsukka Local Government Area of Enugu State, Nigeria. *Library Philosophy and Practice (LPP)*. Retrieved from:<http://unllib.unl.edu/LPP/>.

- xxvi. Obinya, G. A., Obinya, O. O. and Aidenojie, E. (2009). Use of information resources in four branches of a State Public Library in Nigeria. *Chinese Librarianship: An International Electronic Journal*. 31. Accessed from (<http://www.icic.us/cliej/c13000a.pdf>)
- Ozowa, V.N. (1995). Information Needs of Small Scale Farmers in Africa: The Nigerian Example. *Quarterly Bulletin of the International Association of Agricultural Information Specialists, IAALD/CABI* 40 (1).
- xxvii. Reynnells, M.L. (2010). The Rural Information Center Serving Communities in the United States. Being a paper presented at the Scientific and Technical Information and Rural Development IAALD XIIIth World Congress, Montpellier, 26-29 April 2010.
- xxviii. Ravallion, M., and S. Chen (2007). "China's (Uneven) Progress against Poverty." *Journal of Development Economics* 82(1):1-42.
- xxix. Rogers, E.M. (1968), *Modernization among Peasants: The Impact of Communication*. New York: Rinehart & Winston Inc. p.21 Rogers, E.M. (1968). *Ibid.* p.125
- xxx. Roling, N. (1988): *Extension Science, Information System in Agricultural Development*. Cambridge University Press: Cambridge.
- xxxi. Sturges, P and Neill, R. (1998). *The quiet struggle: Information and Libraries for the people of Africa*. London: Mausell. 244.
- xxxii. Telecommons Development Group (2000). *Rural access to Information and Communication Technologies (ICTs): The challenge for Africa (Draft)*. African Connection Secretariat.