

FROM AGRICULTURAL EXTENSION TO RURAL EXTENSION: MAKING TECHNOLOGY WORK FOR RURAL TRANSFORMATION IN NIGERIA

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ABSTRACT

Development in the context of the third world is synonymous with rural development, and rural development in turn has been viewed as synonymous with agricultural development. Equating rural development with agricultural development has its basis in the fact that in most developing countries agriculture provides a high proportion of the GDP and employment for majority of the (rural) population. It would appear logical therefore, that making development happen would require simply concentrating on the agricultural sector. However, the worsening situation of rural dwellers worldwide is a testimony to the failure of this strategy. This paper argues that development in every sphere of life has been driven by the application of improved technology, and concentrating that technology on the agricultural sector does not serve the interest of the farmer. Historically agricultural extension has been used to improve the productivity of farmers to service urban (and sometimes foreign) industries with raw materials and cheap food for the urban population. The paper concludes therefore that emphasis in rural development efforts should shift from the produce to the producer through a holistic rural extension system that delivers improved technology to the rural areas in housing, sanitation, infrastructure, education, law etc., and not just on agriculture

Keywords: Development, rural development, agricultural extension, rural extension, technology.

1.0 Introduction

A developing country has been defined as 'a country with a relatively low standard of living, undeveloped industrial base, and moderate to low Human Development Index (HDI)' (Aronson, 2006). 'Development' implies the existence of modern physical and institutional infrastructure, and a shift from low value-added sectors such as agriculture, and natural resource extraction. Another definition views development as 'a process which enables human beings to realize their potential, build self-confidence, and lead lives of dignity and fulfillment, it is a process which frees people from fear of want and exploitation. It is a movement away from political, economic and social oppression. Through development, political independence acquires true significance. It is a process of growth essentially springing from within the society that is developing.' (Aronson, 2006)

Nigeria, like most countries in Africa performs poorly in terms of most measures of development including the more acceptable Human Development Index (HDI). For instance out of 179 countries Nigeria ranked 152nd in terms of development (United Nations Development Programme (UNDP, 2011). The United Nation is proposing yet another measure of development to be known as 'Sustainable Human Development Index' (SHDI) as fallout of the recently concluded Rio+20 conference in Rio de Janeiro, Brazil (International Institute for Sustainable Development, 2012). This new measure will take into consideration the costs of today's development and growth to future generations. This reflects the concern about the sustainability of development and growth in terms of continuity and preservation of resources and opportunities for future generations. By the time this index is constructed and applied, Nigeria's rating is

likely to worsen given her notoriety for ignoring environmental best practices aptly exemplified by decades of gas flaring in the Niger Delta region.

'Development' within the context of most African countries including Nigeria indirectly implies 'rural development', since most of the population of these countries reside in the rural areas. These terms would be used interchangeably in this paper. Development is understandably the goal of all countries that are yet to attain it. Several strategies have been adopted to achieve it in Nigeria. These include the development plans of the 1960s and 70s, Operation feed the Nation (OFN), the Agricultural Development Projects, The River Basin Development Authorities among others, which remained more of slogans than any concrete programme of action, and more recently, the National Economic Empowerment and Development Strategy (NEEDS), the 7-Point Agenda and Vision 2020 which set a target of year 2020 for Nigeria to join the league of developed countries. All these programmes regard agriculture and rural development as key to attaining their objectives. Perhaps the most resilient of these strategies is the ADP which relies on the Training and Visit extension approach. The mandate of the ADPs include the promotion of adaptive research, transfer of useful technologies from technology-generating institutions to farmers, supply of inputs (fertilizers, pesticides, herbicides and improved seeds and farm equipment, and provision of rural infrastructure - roads and water supply (Jibowo, 2005).

Over the years government has emphasized the need for increased agricultural production; more so, as the futility of total dependence on petroleum as the main revenue source for government has become apparent. Agricultural extension has been a major component of the government's strategy to boost agricultural production and stimulate the non-oil sector and achieve rural development (Naswem, 2010). Emphasis has been on mere primary production without value addition. The failure of this

strategy can be seen in the continued poor performance of Nigerian agriculture especially when compared to other countries of similar background. For instance even though Nigeria is the largest producer of cassava, her cassava economy is the most backward as compared with Brazil which uses 53 percent for industrial purposes, and Thailand which exports 83 percent. Forty-three percent of the crop is wasted in Nigeria (Eboh, 2011). This demonstrates how the boosting of agricultural production has not contributed much to the economy, and suggests a crucial missing link.

2.0 The role of technology in development

It is a truism that development is driven by technology. Historically, societies that had superior technology dominated others. These societies had the technology to produce enough food to feed the population and to support a viable military. Such societies possessed relatively advanced modes of transportation and they could extend their influence to other societies in commerce and culture. Examples of such countries include the Kingdom of Great Britain that developed rapidly as a result of the industrial revolution propelled by advances in manufacturing technology, and more recently, Malaysia and South Korea who diligently applied chipset technology (Egbogah, 2007).

In all these instances the educational institution led the way in generating new knowledge to tackle day-to-day tasks more efficiently. These societies transited from agrarian to industrial or industrializing societies, not by concentrating on agricultural technology, but by effectively linking agriculture to manufacturing. United States and Britain at one time gave serious attention to the generation and dissemination of cutting-edge agricultural technology. Both countries enacted laws that provided the framework to guarantee the effectiveness and sustainability of the agricultural extension systems (Naswem, Daudu and Ejembi, 2008). These countries had on

ground, or at least developing simultaneously, a vibrant industrial sector that provided value-addition to the products of agriculture in line with national priorities intelligently determined by the people through their true representatives. Other aspects of daily living were positively impacted by methods and techniques generated by the educational system, such aspects as power, communication, transportation, housing and sanitation.

3.0 The philosophy behind agricultural extension in Nigeria

What is now known as agricultural extension in Nigeria began in Oxford and Cambridge as 'university extension,' an arrangement where the universities sought to meet the educational needs of contiguous communities. Initially involving literary and social topics, these efforts soon included agricultural topics, and spread very fast, reaching the United States and later the colonies of Great Britain including Nigeria (Jones and Garforth, 1997). In the hands of the colonial government, agricultural extension involved the provision of seeds and technical advice to farmers for the production of crops that were of specific interest to Great Britain (Okwu and Ejembi, 2001; Naswem *et al.*, 2008).

Since the objective of injecting technology into agriculture was not to benefit the local farmer, food crops grown and consumed by Nigerians were not accorded research/extension attention. The educational system was operated to provide clerical and administrative assistants for the colonial government, and not geared towards generating new ways of performing essential day-to-day tasks of interest to Nigerians. Instead, the linkage between Nigerian agriculture was with British industries which were far removed spatially and psychologically. Elsewhere, British and American farmers were supported and groomed from peasants to big time, confident businessmen. Over time the population of farmers shrank in response to progressive deployment of efficient technology on the

farm which resulted in phenomenal growth in farm output (Sandiford-Rossimiller, 1998). As less number of farmers were required to produce for the nation, the industrial sector was also expanding and absorbing elements from the farm.

In contrast, the Nigerian farmer was left to his own fate without any effective support from the government. The post-independence national governments have continued with the colonial philosophy of agricultural extension. Government objective for agricultural extension has been the production of cheap food for the masses (Adekunle and Adewale, 1998). With the instability of oil prices, government seems to be coming to grips with the fact that agriculture is far more sustainable as a source of income for government, yet lip service continues to be played to appropriate investment in agriculture. Interestingly even with this kind of weak support, Nigeria has witnessed high output in the production of certain crops from time to time, an eloquent testimony to the sheer resourcefulness of the Nigerian farmer. However because of the weak linkage between the producer and the consumer (notably industry), farmers have had to contend with persistent glut, when they should be rejoicing all the way to the bank.

4.0 The inadequacies of agricultural extension

Concentration on agriculture and agricultural extension would not lead to rural development because agriculture represents just a fraction of the life of rural people, to wit, their economic life. The society from the functionalist perspective has several institutions working synergistically to maintain the society. Agriculture represents the most visible aspect of rural economic activity. Other institutions and structures with critical contributions to the healthy functioning of the society include political, legal, religious and family institutions. In a modern society traditional functions of the fundamental institution are either modified

or new structures emerge to assume their traditional roles. A good example is the family institution which used to perform the role of socialization of new members of society. The family continues to perform vital aspects of this role, but also shares it with the school, the church, the media and several other social structures like the National Orientation Agency, for instance.

Socialization entails the instruction of young (and even older) members of the society on acceptable social conduct, and the equipping of members with requisite skill to earn a living and survive in the Society (Haralambos and Holborn, 2008). Thus, in a simple agrarian setting, the individual learns how to farm and construct his dwelling from other members of the family. The production of artifacts and utensils which he needs (pots, baskets, cloths, etc) are also learnt from the family. As the society becomes more complex, specialization sets in and certain members of the society begin to specialize as farmers, artisans, blacksmiths, healers, etc. The educational system in a modern society handles the aspect of training members of society and equipping them with skills for occupational specialization. Thus schools prepare individuals for occupational roles as doctors, lawyers, engineers, accountants, and so on. An important component of the educational institution in modern society is the generation of technology on all aspects of life. Egbogah, (2007) described technology as the primary engine of economic growth and provides the key to unlocking any country's potential.

The rural areas of Nigeria remain areas of low technology penetration. Sadly, investments in agricultural extension have not been able to significantly change this as mechanization of agricultural operations remains extremely low especially at the smallholder level. The use of improved seeds is also very low as compared to other African countries. Therefore even though agriculture is just one aspect of rural life, and perhaps the only one to experience a conscious effort at technology transfer through agricultural extension, success has been only in the aspect

of awareness creation; Actual use of agricultural technology has been curtailed by high costs, unprofitability and tradition.

5.0 Conclusion and Recommendations

Rural Extension - the pathway to rural development

The rural farmer in Nigeria has become synonymous with poverty, backwardness and conservatism. This is because he has been locked out of the modern economy. The founding father of sociology, August Comte, envisioned sociology as the king of all sciences, investigating the problems of society and prescribing workable solutions. Several people who came across his thoughts dismissed them as mere professional megalomania. Centuries later, today, the sociologist is called upon to provide answers to contemporary problems. Early sociologists concentrated on the social problems of their time. The Nigerian rural sociologists must also invade the sphere of public policy by articulating a programme of rural extension in order to fast-track development of the rural areas. Rural extension is by no means a new idea. However when the term is used, it often refers to agricultural extension. For our purposes rural extension is conceived as a deliberate strategy to extend modern technology to the rural areas in other sectors in addition to the agricultural realm. As agriculture became less dominant as a rural activity, in western societies, the idea of dealing with a non-agricultural countryside emerged (Naswem *et al.*, 2008). In the case of Nigeria, however, rural extension is required to steer the country-side away from poverty and low technology penetration. Areas to be targeted include:

i) **Housing and Sanitation**

Rural Development Boards should be constituted to establish standards for the construction of houses in the rural areas to ensure that safety standards are adhered to. Standards should be prescribed for toilet

facilities to reduce the incidence of infectious diseases.

- ii) **Functional rural education**
The curricula of rural schools should tilt towards vocational subjects to ensure that rural youth could find agricultural or non-agricultural employment when they graduate even if they cannot continue to higher education.
- iii) **Rural infrastructure**
An aggressive drive to construct needed infrastructure is imperative. Governments, development partners and other stakeholders can collaborate with local people in this regard to provide the needed funding, expertise and labour. In line with sustainability concerns, renewable and environmentally friendly technologies should be considered. For instance solar technology should be used for rural electricity projects.
- iv) **Utilization of the technology-generating institutions**
Efforts should be made to use locally generated technology from Nigerian universities, polytechnics and research institutes. To this end students' research projects should be tailored towards specific needs of the rural areas, and viable funding arrangements worked out for such.
- v) **Conscious linkage between agriculture and manufacturing**
A deliberate programme of linking the farmer with manufacturing sector should be put in place. Industrialists should be given incentives to locate industries in the rural areas, and local people trained and empowered to set up feeder industries that would service the bigger ones.

The above represent just a few possibilities that rural extension can explore. These place

a serious demand to change on the part of the rural folk and rural sociologists' skills are best positioned to midwife this change. To guarantee the success of this proposition, a rural extension working group should be constituted to draw out a rural extension blue print to be reflected in the constitution as the official policy on rural development

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